

Cultural Perception of Pain and Methods Used in Coping with Pain During Menstruation in Turkey

Kültürel Olarak Ağrıyı Algılama ve Menstürasyon Dönemde Ağrıyla Baş Etmede Kullanılan Yöntemler: Türkiye Örneği

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Highlights

- Traditional and complementary medicine practices are frequently used today.
- Women's pain beliefs are influenced by many factors such as education level, where lived the longest.
- Traditional and complementary medicine practices are used more frequently in coping with pain.

Abstract: Menstruation is a natural process, and pain, an unpleasant symptom, negatively affects the quality of life. The aim of this study is to determine women's cultural perception of pain during menstruation, traditional and complementary medicinal practices used to cope with the pain, and pain beliefs. This study has a cross-sectional design. The sample of the study consisted of 892 women for data collection a questionnaire created by the researchers after literature review and the Pain Beliefs Questionnaire were used. 71.9% of the participants used traditional methods to reduce menstrual pain. Factors that affected the pain beliefs score were education level, health insurance status, longest region of residence, frequency of pain during menstruation, using painkillers, using traditional methods and factors causing pain ($p<0.05$). A statistically significant positive correlation was found between the total score on the Pain Beliefs Questionnaire, mean score of organic beliefs and psychological beliefs sub-dimensions ($p<0.05$). Women use traditional and complementary medicine practices more frequently than pharmacological practices in coping with menstrual pain. The Psychological Pain Belief scores of women who practiced traditional and complementary medicine to deal with menstrual pain were high and significant.

Keywords: Menstrual pain, Women, Culture, Traditional Methods, Complementary Medicine.

Öne Çıkanlar

- Geleneksel ve tamamlayıcı tıp uygulamaları günümüzde sıklıkla kullanılmaktadır.
- Kadınların ağrı inançlarını eğitim düzeyi, yaşadığı bölge gibi birçok faktör etkilemektedir.
- Adet ağrısıyla baş etmede geleneksel ve tamamlayıcı tıp uygulamaları daha sık kullanılmaktadır.

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Öz: Menstruasyon doğal bir süreç olup bu dönemin rahatsız edici semptomlarından biri olan ağrı, yaşam kalitesini olumsuz etkilemektedir. Bu çalışmanın amacı, menstruasyon döneminde kadınların kültürel olarak ağrıyı algılama biçimlerini, yaşadıkları ağrıyla baş etmede kullandıkları geleneksel ve tamamlayıcı tıp uygulamalarını ve ağrı inançlarını belirlemektir. Bu kesitsel bir çalışmadır. Araştırmanın örneklemini 892 kadın oluşturmuştur. Demografik veriler ve menstural dönemde yaşanan ağrıyla baş etmede kullanılan yöntemleri belirlemeye yönelik Kişisel Bilgi Formu ve Ağrı İnançları Ölçeği kullanılarak veriler toplanmıştır. Ağrıyı azaltmada %71,9'unun geleneksel yöntemler kullandığı belirlenmiştir. Ağrı inanç puanını etkileyen faktörler; eğitim düzeyi, sağlık sigortası durumu, en uzun yaşanan bölge, adet döneminde ağrı sıklığı, ağrı kesici kullanımı, geleneksel yöntem kullanımı ve ağrıya neden olan faktörler olarak bulunmuştur ($p<0,05$). Ağrı İnançları Ölçeği toplam puanı ile organik inançlar alt boyutu puan ortalamaları ve psikolojik inançlar alt boyutları arasında istatistiksel olarak anlamlı pozitif korelasyon bulunmuştur ($p<0,05$). Kadınların adet ağrısıyla baş etmede farmakolojik uygulamalara göre geleneksel ve tamamlayıcı tıp uygulamalarını daha sık kullandığı saptanmıştır. Adet ağrısıyla başa çıkmak için geleneksel ve tamamlayıcı tıp uygulayan kadınların psikolojik ağrı inanç puanları yüksek ve anlamlı bulunmuştur.

Anahtar Kelimeler: Adet Ağrısı, Kadın, Kültür, Geleneksel Yöntemler, Tamamlayıcı Tıp.

Genişletilmiş Türkçe Özet

Ağrı, kültürden kültüre algılayış ve yaşayış biçimleri farklılık gösteren sağlık sorunlarından biridir. Toplumlarda ağrı arklı şekillerde algılanmakta ve ağrı ile başetmede farklı ritüeller kullanılmaktadır. Kadınlar özelinde ağrının gündeme geldiği durumlardan biri de menstruasyon dönemidir. Bu dönemde yaşanan ağrı ve ağrıya yüklenen anlam günlük yaşamı olumsuz etkilemektedir. Ağrının günlük yaşama verdiği olumsuz etkilerinden kurtulmak için geleneksel/kültürel yaklaşımlar sıkça kullanılmaktadır. Kadınların menstural ağrıyı kültürel olarak algılamasına ve ağrı ile baş etmede kullandıkları yöntemlerin belirlenmesine ve ağrı inançlarını belirlemeye yönelik yapılan çalışmaya pek rastlanmamıştır. Kadınların sağlığı sürdürmek için menstural ağrıda gerçekleştirdikleri kültürel/geleneksel yaklaşımların ve ağrı inançlarını bilinmesi holistik bakım yaklaşımı için önemlidir. Bu çalışma ile menstruasyon döneminde olan kadınların kültürel olarak ağrıyı nasıl algıladıklarını, yaşadıkları ağrıyla baş etmede kullandıkları geleneksel ve tamamlayıcı tıp uygulamaları ve ağrı inançlarının belirlenmesini amaçladı. Kesitsel olarak planan bu çalışmada 892 kadına ulaşıldı. Çalışmada Kişisel Bilgi Formu ve Ağrı İnançları Ölçeği kullanıldı. Kişisel Bilgi Formu Demografik veriler ve menstural dönemde yaşanan ağrıyla baş etmede kullanılan yöntemleri belirlemeye yönelik sorulardan oluştu. Ağrı İnançları Ölçeği 12 maddeden oluşmuş olup Türkçe geçerlik ve güvenilirlik çalışmasını Sertel Berk (2006) tarafından yapılmıştır. Ölçek 'Organik İnançlar' ve 'Psikolojik İnançlar' alt boyutlarından oluşmaktadır. Bulguların yorumlanmasında frekans tabloları ve tanımlayıcı istatistikler, iki bağımsız grubun ölçüm değerleriyle karşılaştırılmasında "Mann-Whitney U" test (Z-tablo değeri), bağımsız üç veya

daha fazla grubun ölçüm değerleriyle karşılaştırılmasında “Kruskal-Wallis H” test (χ^2 -tablo değeri) yöntemi kullanıldı. Üç veya daha fazla grup için anlamlı fark çıkan değişkenlerin ikili karşılaştırmaları için Bonferroni düzeltmesi, normal dağılıma sahip olmayan ölçüm değerlerinin birbirleriyle ilişkisinin incelenmesinde “Spearman” korelasyon katsayısı kullanıldı. Katılımcıların yaş ortalaması $25,18 \pm 7,58$, çoğunun sağlık güvencesinin olduğu bulundu. Katılımcıların yaklaşık yarısının, en uzun yaşadığı yer il merkezi olup en uzun yaşadığı bölge Akdeniz’dir. Katılımcıların yaklaşık yarısı menstrual siklus sürecinde ağrı yaşadığını belirtti. Ağrının en çok ev işlerini yapmayı, arkadaş/akraba ile aktiviteye katılmayı, alışveriş yapmayı ve uykuyu olumsuz etkilediği bulundu. Ağrıyı azaltmada yaklaşık dörtte üçünün tamamlayıcı ve geleneksel yöntemler kullandığı, belirlendi. Bu yöntemlerden en çok tercih edilenler; sıcak su banyosu ve sıcak su kompres uygulaması, bitki çayları içme, masaj yapma, bitki çayları ve sıcak kompres uygulamasını birlikte yapmadır. Ağrıyı azaltmada en çok kullanılan kültürel yöntemler; secde veya cenin pozisyonunda dinlenmek ve uyumak, şekerli sıcak su içmek, abdominal bölgeyi bir bez ile sıkıca sarmak, maydanoz veya soğan kaynatıp suyunu içmek, bal ve tarçın karışımı yemek, sıcak pekmez ile tereyağı karışımı içmek, Türk kahvesi içmektir. Katılımcılar yaşanan ağrının nedenini kalıtsal özellikler, negatif enerji (nazar) ve Tanrı’dan gelen bir ceza olarak belirtti. Ölçek toplam ve alt boyut puanlarına bakıldığında organik inançlar ile psikolojik inançlar ve toplam puan arasında pozitif yönde, sırasıyla zayıf ve yüksek derecede, istatistiksel olarak anlamlı ilişki belirlendi ($p < 0,05$). Sonuç olarak kadınların çoğunluğunun, geleneksel ve tamamlayıcı yöntemleri kullandığı ağrı nedeniyle birçok günlük yaşam aktivitelerini yapamadığı bulundu. Eğitim düzeyi, sosyal güvence, menstrual dönemde ağrı sıklığı, ağrı kesici kullanma, geleneksel yöntem kullanma, ağrıya neden olan faktörlerin ağrı inançlarını etkilediği görüldü. Organik inançlar ile psikolojik inançlar ve toplam puan arasında pozitif yönde, ilişki olduğunu belirlendi. Menstrual ağrıda geleneksel ve kültürel uygulama yapan kadınların, psikolojik ağrı inanç puanının daha yüksek olduğu bulundu.

Introduction

The concepts of health and disease have been shaped according to value judgments and have been influenced by culture throughout history. It is seen that the attitudes and behaviors of each culture towards health and disease differ. Perception and experience of pain vary across societies. Pain is perceived in diverse ways in different societies such as "punishment for what you have done" or "part of life" and different rituals are used to cope with pain (Jin 2017). Pain is affected by factors such as family, emotional dimensions, gender and age (Sarı Çetin and Erbil,2020). The perception of pain experienced by the individual is multidimensional, and the

behaviors towards pain differ between cultures (Gooberman-Hill 2015; Orhan et al. 2018), and is experienced depending on cultural learning and individual factors (Şener and Taşhan 2020).

Pain is one of the symptoms experienced during menstruation. Menstruation is a natural process and one of its irritating symptoms is pain, which negatively affects the quality of life (Kilci et al., 2019; Çay & Saka, 2020). Pain during menstrual period can lead to absenteeism from school and work life, social life restrictions, and difficulties in completing academic performance, sports activities and daily life activities (Maharani et al. 2017). Studies emphasize social differences and the use of traditional methods in coping with menstrual pain symptoms (Şahin et al. 2015; Yang et al. 2017). Various pharmacological and non-pharmacological methods are used to relieve pain. In addition to relieving pain with pharmacological methods, non-pharmacological methods such as herbal therapy (Yang et al. 2017; Sut and Kayaoğlu- Sut 2017; Armour et al. 2019), warm compress (Sut and Kayaoğlu- Sut 2017; Armour et al. 2019), exercise (Armour et al. 2019), music therapy and muscle relaxation techniques are also used (Astuti and Resti 2019). The use of traditional and complementary medicine practices has positive effects in coping with the pain experienced during the menstrual period (Kilci et al. 2019).

In line with the literature, an individual's pain beliefs can be organized as organic and psychological beliefs. Pain experienced by an individual due to biological and physiological reasons is defined as "pain due to organic beliefs", pain experienced due to individual's psychological structure and social-cultural-environmental reasons is defined as "pain due to psychological beliefs" (Kennedy, Healy, and O'Sullivan 2014; Gül and O'Sullivan 2014; Erel 2018; Erol Ursavaş and Karayurt 2020). There is a lack of studies on women's cultural perception of menstrual pain, methods they use to cope with pain, and their pain beliefs (Marván et al. 2017; Kilci et al. 2019). It can be said that knowing the cultural/traditional approaches to maintaining women's health and pain beliefs during menstrual period is important for the holistic care approach. The aim of this study is to ascertain the pain beliefs of menstruating women, the demographic characteristics that influence their cultural perception of pain, and the traditional and complementary medicine practices they employ to cope with the pain they experience.

Research questions

What are the traditional complementary medicine and cultural practices that women use to cope with pain during the menstrual period?

Are traditional complementary medicine practices used by women in coping with menstrual pain affected by their demographic characteristics?

Method

Type of Research

This is a cross-sectional study.

Population and Sample of the Research:

The population of the research is 20,832,406 women between the ages of 20-54 living in Turkey. The sample consisted of 892 women (<https://data.tuik.gov.tr/Bulten>).

Participants who were older than 20 years old living in Turkey who menstruate and volunteered to participate in the study were included in the study.

Data Collection

Personal Information Form: A questionnaire to determine demographic characteristics and methods used to cope with menstrual pain was prepared by the researchers after scanning the literature (Şahin et al. 2015; Maharani et al. 2017; Uzunçakmak and Kılıç 2017; Şengüleroğlu et al. 2020).

The Pain Beliefs Questionnaire (PBQ): The validity and reliability study of The Pain Beliefs Questionnaire developed by Edwards et al. in 1992, was conducted by Sertel Berk in Turkey (2006) (Sertel Berk 2006). The scale consists of 12 items and 2 subdimensions: Organic Beliefs (8 items) and Psychological Beliefs (4 items). Score in this Likert type scale (1 to 6) is calculated by dividing the total score in each sub-dimension by the number of items in that sub-dimension. As the scale score increases, pain beliefs increase. Cronbach's Alpha coefficient was 0.71 for organic beliefs sub-dimension and 0.73 for psychological beliefs sub-dimension by Sertel Berk (Sertel Berk 2006). In this study, Cronbach's Alpha internal consistency coefficient was 0.742 for organic beliefs sub-dimension and 0.762 for psychological beliefs sub-dimension and pain beliefs. The answers given to the scales of the participants were of high reliability.

Application of Data Collection Forms

The data were collected by the researchers from the participants who met the inclusion criteria between May-July 2021 through online data collection form.

Ethical Aspect

In line with the standards for national ethics rules, ethics committee approval was obtained from the ethics committee of a university (Number: KAEK-348, Date: 26 May 2021). Before data was collected, a written informed consent was obtained from the participants after the purpose of the research in accordance with the Helsinki Declaration was explained. Also, participants were

informed about the fact that their participation is voluntary, and their answers will be kept confidential and evaluated only as scientific data.

Analysis of Data

Statistical analyses were done using SPSS Statistics 24. Frequency tables and descriptive statistics were used to interpret the findings. Non-parametric methods were used for the measurement values that did not conform to the normal distribution. In accordance with non-parametric methods, the "Mann-Whitney U" test (Z-table value) was used to compare the measurement values of two independent groups, and the "Kruskal-Wallis H" test (χ^2 -table value) method was used to compare the measurement values of three or more independent groups. Bonferroni correction was applied for pairwise comparisons of variables with significant difference for three or more groups. "Spearman" correlation coefficient was used to examine the relationship between measurement values that do not have a normal distribution.

Findings

Almost $\frac{3}{4}$ of the participants, 72.6% (n=648) were university graduates, 19.7% (n=176) secondary school/high school graduates, 5.0% (n=45) literate/primary school graduates and 2.6% (n=23) illiterate. The mean age was 25.18 ± 7.58 (maximum: 50, minimum: 20). More than half, 64.0% (n=571) of the participants were students, 17.7% (n=158) housewives, 11.3% (n=101) civil servants, and (n=62)7.0% workers. Three-fourths, 75.6% (n=674) of them were single. Half of the participants, 49.4% (n=441) stated that their income is equivalent to expenses, 41.4% (n=369) income is less than expenses, and 9.2% (n=82) income is more than expenses. More than half, 64.6% (n=576) of the participants had health insurance. Half the participants lived the longest in the province 50.1% (n=447), 30.4% (n=271) in the city, 19.5% (n=174) in the village. The region of the country lived in the longest for 49.9% (n=445) was Mediterranean, Southeastern Anatolia for 33.0% (n=294), Eastern Anatolia for 5.5% (n=49), Central Anatolia for 4.8% (n=43), Marmara for 4.0% (n=36), and Aegean for 2.8% (n=25).

Table 1.

Traditional and complementary medicine methods used to cope with menstrual pain

	n	%
Applying complementary and traditional methods to reduce pain		
Yes, at least one method	641	71.9
No, not using any	251	28.1
Non-pharmacological methods used to cope with menstrual pain		
Who has control of pain		
Self	686	76.9
God	109	12.2
Health personnel (doctor, nurse)	97	10.9
Factors causing pain according to the culture		

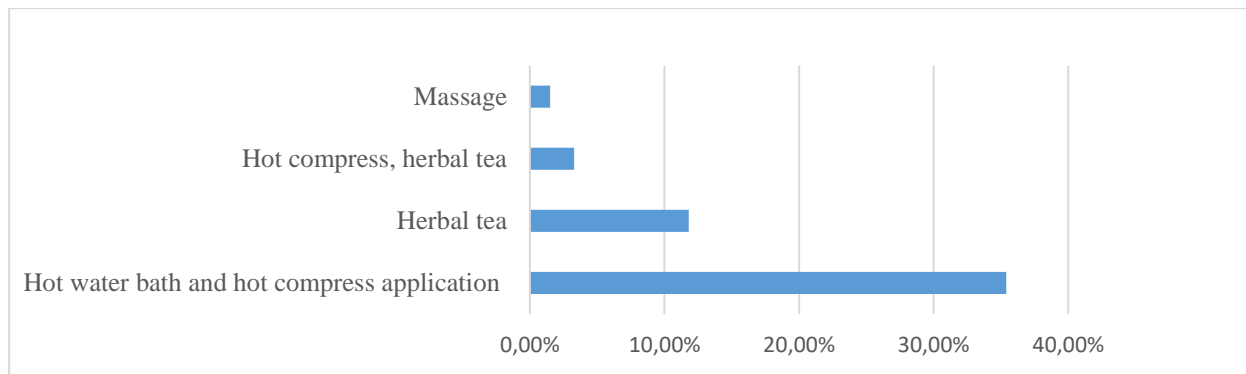
None	409	45.9
Hereditary features	293	32.8
Negative energy (evil eye), Hereditary features	89	10.0
Negative energy (evil eye)	82	9.2
Punishment from God	19	2.1

A majority of the participants, 87.9% (n=784) stated that they did not have a chronic disease, and 74.4% (n=664) stated that they had a regular menstrual cycle. Mean menstrual cycle days of the participants was 6.09 ± 1.52 (maximum: 3, minimum: 10). 41.6% (n=371) rarely, 33.4% (n=298) frequently, 20.2% (n=180) always, and 4.8% (n=43) never experienced pain during their menstrual cycle.

Due to menstrual pain experienced 70.5% (n=629) of the participants had difficulties in doing housework, 64.5% (n=575) participating in activities with friends/family/neighbors, 61.8% (n=551) shopping, 59.9% (n=534) sleeping, 41.8% (n=373) taking a bath, 40.0% (n=357) eating, 37.1% (n=331) had difficulty in excretion (constipation, diarrhea, pain while urinating), and 29.8% (n=266) performing dressing and undressing activities. 46.1% (n=411) of the participants used analgesics (non-steroidal anti-inflammatory drugs, paracetamol) to cope with pain.

Figure 1.

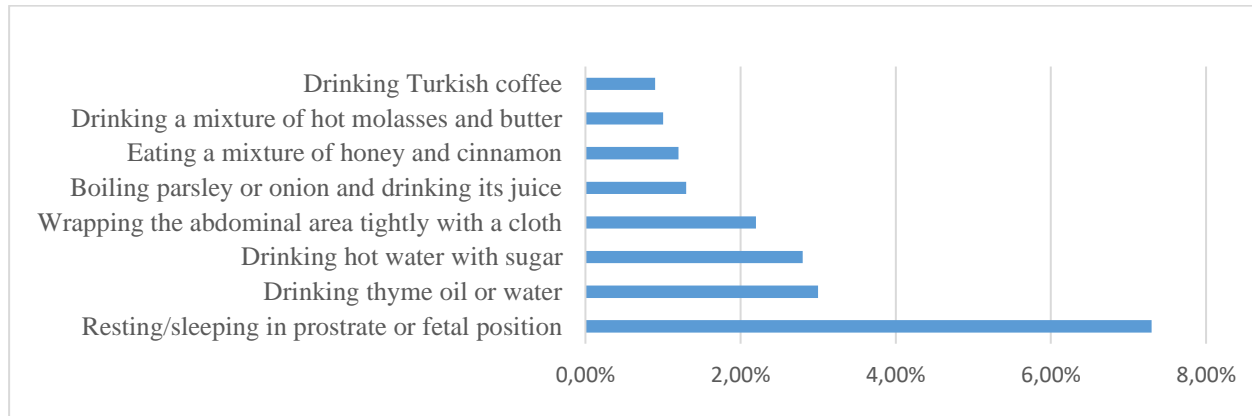
Complementary and traditional methods



Large percent of participants, 71.9% (n=641) used traditional methods in reducing pain (Table 1). Among the complementary and traditional methods used to reduce menstrual pain, 35.4% (n=316) of the participants stated hot water bath and hot water compresses, 11.8% (n=105) drinking herbal teas, 1.5% (n=14) massage, 3.3% (n=29) herbal teas and applying hot compresses (Figure 1). The cultural methods used by the participants to reduce pain were resting and sleeping in prostrate or fetal position by 7.3% (n=65), drinking thyme oil or water by 3.0% (n=27), drinking hot water with sugar by 2.8% (n=25), wrapping the abdominal area tightly with a cloth by 2.2% (n=20), boiling parsley or onion and drinking its juice by 1.3% (n=12), eating a mixture of honey and cinnamon by 1.2% (n=11), drinking a mixture of hot molasses and butter by 1.0% (n=9), and drinking Turkish coffee by 0.9% (n=8) (Figure 2).

Figure 2.

Cultural methods used to reduce pain



Three-fourths, 76.9% (n=686) of the participants stated they believed they had control of the pain, 12.2% (n=109) stated God had control, and 10.9% (n=97) stated health personnel had control. One-third, 32.8% (n=293) of the participants determined the cause of the pain experienced as hereditary features, 10% (n=89) negative energy (evil eye) and hereditary features, 10.0% (n=89) negative energy (evil eye), 2.1% (n=19) punishment from God, and 45.9% (n=409) stated that nothing affected the pain (Table 1).

There was no statistically significant difference in terms of organic beliefs, psychological beliefs and total scores according to age, income level, place lived the longest and region the participants lived in ($p > 0.05$).

There was no statistically significant difference in organic belief score according to education level ($p > 0.05$). There is a statistically significant difference in terms of psychological beliefs score according to education level ($\chi^2 = 24.443$; $p = 0.000$). As a result of pairwise comparisons with Bonferroni correction; a significant difference was found between university graduates and illiterate, literate/primary school graduates and middle/high school graduates. Psychological beliefs scores of university graduates are significantly higher than those who are illiterate, literate/primary school and secondary/high school graduates. A statistically significant difference was found in terms of total PBQ scores according to education level ($\chi^2 = 8.517$; $p = 0.036$). As a result of pairwise comparisons with Bonferroni correction; a significant difference was found between those who graduated from university and those who graduated from middle/high school. The PBQ total scores of university graduates are significantly higher than those of secondary/high school graduates

A statistically significant difference was determined in terms of organic beliefs score ($Z = -1.977$; $p = 0.048$) and total score ($Z = -2.024$; $p = 0.043$) according to health insurance status. Organic beliefs and total score of those without health insurance are significantly higher than those with

health insurance. There was no statistically significant difference in terms of psychological beliefs scores according to health insurance ($p>0.05$).

A statistically significant difference was found in terms of organic beliefs score ($Z=-2.599$; $p=0.009$) and pain beliefs total score ($Z=-2.085$; $p=0.037$) according to chronic disease status. Organic beliefs and total score of those with chronic disease are significantly higher than those without chronic disease. There was no statistically significant difference in terms of psychological beliefs scores according to chronic disease ($p>0.05$).

There was a statistically significant difference between the organic beliefs score ($\chi^2=25.939$; $p=0.000$) and the total score ($\chi^2=21.244$; $p=0.000$) according to the frequency of pain during the menstrual period. As a result of bilateral comparisons with Bonferroni correction, a significant difference was found between those who rarely had pain during the menstrual period and those who often and always had it. The organic beliefs score and total score of those who often and always have pain are significantly higher than those who rarely have it. There is no statistically significant difference in terms of psychological beliefs scores according to the frequency of pain during the menstrual period ($p>0.05$).

A statistically significant difference was found in terms of organic beliefs score ($Z=-5.318$; $p=0.000$) and total scores ($Z=-4.436$; $p=0.000$) according to status of painkiller use. Organic beliefs and total score of those who use painkillers are significantly higher than those who do not use painkillers. There was no statistically significant difference in psychological beliefs scores according to painkiller usage ($p>0.05$).

There was no statistically significant difference in terms of organic beliefs score and total scores according to traditional method usage ($p>0.05$). A statistically significant difference was determined in terms of psychological beliefs scores according to traditional method usage ($Z=-2.738$; $p=0.006$). The psychological beliefs scores of those who use traditional methods are significantly higher than those who do not use traditional methods. A statistically significant difference was found in terms of organic beliefs score ($\chi^2=61,648$; $p=0.000$) and total score ($\chi^2=41.531$; $p=0.000$) according to the belief in who has control of the pain experienced. As a result of pairwise comparisons with Bonferroni correction; a significant difference was determined between those who see self-control and those who think that health personnel and God have control of the pain experienced. Organic belief scores of those who think health personnel and God control pain are significantly higher than those who think they have control. There was no statistically significant difference in psychological beliefs scores according to the belief in who has the control of the pain ($p>0.05$).

Table 2 (cont.). Comparison of Pain Beliefs Questionnaire and subscale scores according to the descriptive characteristics of the participants

Variable (N=892)	n	Pain Beliefs Questionnaire			Psychological beliefs			Total scale score		
		$\bar{X} \pm S.S.$	Median [IQR]	$\bar{X} \pm S.S.$	Median [IQR]	$\bar{X} \pm S.S.$	Median [IQR]	$\bar{X} \pm S.S.$	Median [IQR]	
Frequency of menstrual pain										
Never ⁽¹⁾	43	2.93±0.85	3.0 [1.1]	4.37±1.32	4.3 [2.0]	3.40±0.81	3.5 [0.9]			
Rarely ⁽²⁾	371	2.89±0.81	2.9 [1.3]	4.24±1.18	4.3 [1.8]	3.34±0.70	3.4 [1.1]			
Often ⁽³⁾	298	3.09±0.72	3.1 [0.9]	4.41±1.03	4.3 [1.5]	3.53±0.67	3.6 [0.9]			
Always ⁽⁴⁾	180	3.27±0.85	3.3 [1.1]	4.51±1.07	4.8 [1.8]	3.68±0.77	3.7 [1.1]			
Test								$\chi^2=21.244$		
p value								p=0.000		
Difference								[2-3,4]		
Use of pain killers										
Yes	411	3.19±0.82	3.1 [1.0]	4.43±1.08	4.5 [1.5]	3.60±0.76	3.6 [0.9]			
No	481	2.90±0.77	3.0 [1.0]	4.30±1.14	4.3 [1.8]	3.37±0.75	3.4 [1.0]			
Test								$Z=-1.617$		
p value								p=0.000		
Traditional Methods										
Yes	641	3.04±0.77	3.1 [1.0]	4.44±1.04	4.5 [1.5]	3.50±0.71	3.5 [0.9]			
No	251	3.06±0.89	3.0 [1.3]	4.16±1.27	4.3 [2.0]	3.41±0.88	3.4 [1.1]			
Test								$Z=-1.378$		
p value								p=0.168		
Pain control										
Self ⁽¹⁾	686	2.92±0.77	3.0 [1.0]	4.33±1.14	4.3 [1.8]	3.39±0.75	3.4 [1.0]			
Health personnel ⁽²⁾	97	3.53±0.78	3.5 [1.0]	4.49±1.08	4.5 [1.5]	3.85±0.73	3.9 [1.0]			
God ⁽³⁾	109	3.30±0.81	3.3 [1.2]	4.46±1.01	4.5 [1.5]	3.69±0.74	3.7 [0.9]			
Test								$\chi^2=41.531$		
p value								p=0.000		
Difference								[1-2,3]		
Factors causing pain										
Negative energy ⁽¹⁾										
Punishment from God ⁽²⁾	82	3.29±0.84	3.3 [1.1]	4.41±1.17	4.5 [1.8]	3.66±0.78	3.7 [0.9]			
Hereditary features ⁽³⁾	19	3.64±0.86	3.6 [1.3]	4.57±1.15	4.5 [1.8]	3.95±0.79	4.0 [0.8]			
Negative energy, hereditary ⁽⁴⁾	293	3.06±0.75	3.0 [0.9]	4.54±1.05	4.5 [1.5]	3.55±0.72	3.6 [0.8]			
None ⁽⁵⁾	89	3.28±0.69	3.3 [0.9]	4.78±0.76	4.8 [1.4]	3.78±0.56	3.8 [1.0]			
	409	2.89±0.81	2.9 [1.1]	4.13±1.17	4.3 [1.8]	3.30±0.78	3.3 [1.0]			
Test								$\chi^2=55.799$		
p value								p=0.000		
Difference								[1,2,3,4,5]		

* The "Mann-Whitney U" test (Z-table value) was used to compare two independent groups that did not have a normal distribution, the "Kruskal-Wallis H" test (χ^2 -table value) statistics were used to compare three or more independent groups.

A statistically significant difference was determined in terms of organic beliefs scores according to the factors causing pain ($\chi^2=41.870$; $p=0.000$). As a result of pairwise comparisons with Bonferroni correction; a significant difference was found between those stated negative energy, punishment from God, hereditary characteristics and negative energy and those who thought that none of them had any effect. Organic beliefs scores of those who stated negative energy, hereditary characteristics, punishment from God and hereditary characteristics and negative energy are significantly higher than those who think that none of them has any effect. Likewise, a significant difference was found between those who stated punishment from God and inherited traits. The organic beliefs scores of those who stated punishment from God are significantly higher than those who stated hereditary traits.

Table 3.
Relationship between Pain Beliefs Questionnaire and subdimensions

Correlation* (N=892)		Pain Beliefs Questionnaire			
		Organic beliefs	Psychological beliefs	Total	
Pain Beliefs Questionnaire	Organic beliefs	<i>r</i>	1.000	0.350	0.880
		<i>p</i>	-	0.000	0.000
	Psychological beliefs	<i>r</i>	0.350	1.000	0.734
		<i>p</i>	0.000	-	0.000
	Total	<i>r</i>	0.880	0.734	1.000
		<i>p</i>	0.000	0.000	-

*"Spearman" Correlation coefficient was used to determine the relationship between two quantitative data that do not have a normal distribution.

A statistically significant difference was found in terms of psychological beliefs scores according to the causes of pain and region lived in ($\chi^2=36,219$; $p=0.000$). As a result of pairwise comparisons with Bonferroni correction; a significant difference was determined between those who stated cause of pain as negative energy and hereditary traits and those who thought that none of them had any effect. Psychological beliefs scores of those who stated negative energy and hereditary traits are significantly higher than those who think none have an effect.

A statistically significant difference was found in terms of PBQ total scores according to the factors causing pain ($\chi^2=55.799$; $p=0.000$). As a result of pairwise comparisons with Bonferroni correction; a significant difference was determined between those who stated negative energy, hereditary features, a punishment from God, and negative energy and hereditary features, and those who thought none had an effect. Pain beliefs scale total scores of those who stated negative energy, hereditary features, a punishment from God, and negative energy and inherited features are significantly higher than those who think none have an effect.

A positive, weak and high degree of statistically significant correlation was determined between organic beliefs and psychological beliefs and total score, respectively ($p < 0.05$). As organic beliefs scores increase, psychological beliefs and total scores increase. A positive, high degree and statistically significant correlation was found between psychological beliefs and total score ($p < 0.05$). As psychological beliefs scores increase, total scores increase.

Discussion

In our study, more than half of the participants had difficulty in performing some of the daily activities due to menstrual pain. Different studies concluded that dysmenorrhea impacted daily life (Chen et al. 2018; Abreu-Sánchez et al. 2020), sexual intercourse, ability to exercise (Abreu-Sánchez et al. 2020), attending classes, individual work, and socialization (Vlachou et al. 2019) negatively. The result of our study was similar to the literature.

Approximately one-fifth of the participants stated that they always experienced pain during menstruation, and nearly half of them stated that they used analgesics (non-steroidal anti-inflammatory drugs, paracetamol) to cope with the pain. In the study by Vlachou et al. (2019), 48.3% of nursing students experiencing menstrual pain used non-steroidal anti-inflammatory drugs and 43% used paracetamol drugs, (Vlachou et al. 2019). In another study, 84% of nursing students, used analgesics to provide complete comfort during menstruation and to relieve dysmenorrhea (Mohamed et al. 2020). The participants in our study tended to prefer pharmacological practice more limitedly than the literature in coping with pain. This may be due to the greater tendency to use non-pharmacological applications in our society.

Close to a quarter of the participants stated that they use traditional methods to reduce pain. During the menstrual period, the most used complementary and traditional methods to reduce pain are hot water bath and hot compress, drinking herbal tea, massage, and applying herbal teas and hot compresses together. In a study conducted with nursing students, the first three applications for pain during menstruation are drinking herbal tea, taking a warm shower and massaging the abdomen (Mohamed et al. 2020). In a different study, 77.27% of the participants used traditional medicine to reduce dysmenorrhea pain (Priyadi, Nurhasanah, Weking, and Hidayatri 2018). In a study conducted with women ($n=52$) in Jordan, 68.0% of the participants stated they use herbal treatment for menstrual pain (Kattuo, Issa, and Beitawi 2020). Based on these findings, it can be said that women often tend to use traditional medical practices and cultural approaches to manage menstrual pain. It is possible to say that traditional methods are frequently preferred by women in every geography to protect and improve health and get rid of diseases. (Özcan Güler, 2022)

Cultural methods used for pain management were resting and sleeping in prostrate and fetal position, drinking thyme oil or water, drinking hot water with sugar, wrapping the abdominal area tightly, boiling parsley or onion and drinking its water, drinking a mixture of honey and cinnamon, drinking a mixture of hot molasses and butter and drinking Turkish coffee. Studies have reported that yoga (Kim, 2019; Armor et al. 2019), hot application, low-intensity exercise and acupressure (Tsonis et al. 2021), massage therapy and isometric exercises (Azima et al. 2015) reduce pain during menstruation. In a study conducted with 762 women living in the United States, natural methods such as exercise, healthy eating, small portions and adequate fluid intake were preferred to reduce dysmenorrhea symptoms (Chen et al. 2018). In Spain, to alleviate pain, students use non-pharmacological methods such as antalgic position, massage, local heat application and relaxation techniques (Parra-Fernández et al. 2020). A literature review study reported use of chamomile, fennel, thyme, ginger, lavender oil; yoga, physical exercise, running activities and aromatherapy massage are used in primary dysmenorrhea (Tsonis et al. 2021) and ginger, cinnamon, fennel, and fenugreek to reduce menstrual pain (Kattuaa, Issa, and Beitawi 2020). Although traditional and complementary medicine practices used to cope with pain are generally similar, in our study it is possible to say that different plants such as thyme, cinnamon, parsley and onion were used to reduce pain, depending on the plant flora in the geography of the country. The methods used to cope with menstrual pain are similar to those carried out in many different regions.

Although traditional and complementary medicine applications used to cope with pain are generally similar, based on the plant flora of the country's geography, plants such as thyme, cinnamon, parsley and onion are used to reduce pain. In our study the act of tightly wrapping the abdominal region in cultural practices is equivalent to the application of tight wrapping of the abdomen (Joshi et al., 2020) in different cultures.

Believing in pain control is a crucial element in coping with pain. Three-quarters of the participants stated that they had control of the pain, while the others stated that God and the health personnel had it. While about half of the participants did not attribute the cause of the pain experienced to a reason, others stated it to hereditary features, negative energy (evil eye) and hereditary features, negative energy (evil eye) and a punishment from God. An individual's belief and approach to pain are their thoughts about pain. Knowing the belief about pain and the methods of coping with it is a factor affecting the perception of pain (Riddle et al. 2018; Doğan and Goris 2018). It is thought that participants' beliefs and cultural values affect their perception of pain.

Organic beliefs and total scores of those with chronic disease are significantly higher than those without chronic disease. In a study conducted with elderly with knee pain, the participants

attributed the source of pain to organic causes (Riddle et al. 2018), and in a study conducted with patients with chronic pain, the organic beliefs score was found to be higher (2.83 ± 0.99) (Topcu 2018). There is a different understanding of pain belief in the chronic disease process in the literature, and in our study, it can be said that the chronic disease affects the pain belief and organic pain belief more.

The organic beliefs and total scores of those who frequently and always have menstrual pain and those who use painkillers were found to be significantly higher. Unlike the results of our study, Kılıçaraslan's (2019) study found no significant difference between pain severity and organic beliefs, while a significant difference was found between psychological beliefs. It seems that pain is a natural process of menstruation. It can be said that the participants' organic pain beliefs are high, as their pain beliefs increase, the frequency of pain experienced during the menstrual process increases, and our pain beliefs affect our lives.

Pain beliefs scale total scores of those who stated causes of pain as negative energy, a punishment from God, hereditary features, negative energy and hereditary features are significantly higher than those who think none of the above. In a study, participants stated that expressing the menstruation period as a painful, stressful and embarrassing process without experiencing it was effective in attributing a negative meaning to menstruation (Marván et al. 2017). An individual's acceptance of pain reduces the effect of menstrual pain and its negative impact on quality of life (Kapadi and Elander 2020). Our study revealed that women's culture, beliefs and reactions to pain affect their pain acceptance approach and pain acceptance process.

Conclusion

Majority of the participants used traditional and complementary methods to reduce menstrual pain. The participants could not perform many daily activities due to the menstrual pain they experienced. Their pain beliefs were affected by their education level, health insurance status, pain frequency during the menstrual period, status of using painkillers, using traditional methods and factors causing pain. There was a positive relationship between organic beliefs and psychological beliefs and total score. Psychological pain belief scores of women who practice traditional and cultural practices for menstrual pain were higher and more significant. It is known that traditional and complementary medicine practices continue together with modern medicine in society. Menstruation is one of the special and confidential processes for women. It is important for nurses to question these practices in a holistic evaluation while collecting patient data.

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