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IS THERE A DIFFERENCE BETWEEN THE DYSMENORRHEA EXPERIENCES OF GENERATIONS?

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Abstract

This study aims to identify the differences between the dysmenorrhea experiences of generations. This descriptive study was conducted in the Nursing Faculty of a public university in a city located in eastern Turkey. The sample was composed of 145 female students who were enrolled in the stated Nursing Faculty and these students' mothers (n:144) and sisters (182). Data were collected through the Participant Information Form. Data analyses included number, percentages, means, and Chi-square. Of all the participants, 30.6% were Generation X, 30.8% were Generation Y, and 38.6% were Generation Z. While 46.3% of Generation X had dysmenorrhea complaint since menarche, 55.7% of the Generation Y and 47.2% of the Generation Z experienced dysmenorrhea since menarche ($p<0.05$). Besides, 51.2% of Generation X, 52.3% of the Generation Y, and 42.4% of Generation Z reported to experience dysmenorrhea in the first day of menstruation ($p<0.05$). Generation Y and Z tried to eliminate dysmenorrhea more than Generation X. The majority of Generation X and Y took pain killers to relieve dysmenorrhea, and Generation Z was found to use methods apart from medicine such as resting, massaging the abdomen, and exercising ($p<0.05$). Dysmenorrhea was found to prevent the daily activities and communication/relationships of Generation Y and Z more than Generation X ($p<0.05$). Dysmenorrhea was found to demonstrate differences between the generations in terms of menarche, menstruation duration, coping with dysmenorrhea and the methods used, and preventions in daily activities and communication/relationships.

Keywords: Dysmenorrhea, Generation, X, Y, Z

KUŞAKLARIN DISMENORE DENEYİMLERI ARASINDA FARKLILIK VAR MIDIR?

Özet

Araştırma kuşakların dismenore deneyimleri arasındaki farklılıkları belirlemek amacıyla yapılmıştır. Araştırma tanımlayıcı türde olup Türkiye' nin doğusundaki bir ilde bulunan bir kamu üniversitesinin Hemşirelik Fakültesinde yapılmıştır. Araştırmanın örneklemini belirtilen Hemşirelik Fakültesinde öğrenim gören 145 kız öğrenci, bu öğrencilerin anneleri (n:144) ve kız kardeşleri (n:182) oluşturmuştur. Araştırma verileri Katılımcı Bilgi Formu kullanılarak elde edilmiştir. Araştırmaya katılmayı kabul eden öğrencilere sınıf ortamında bilgi formu uygulanmış ve annesi ile kız kardeşine uygulaması için bilgi formu verilmiştir. Verilerin değerlendirilmesinde sayı, yüzde, ortalama, Ki kare analizleri kullanılmıştır. Araştırmada katılımcıların %30.6' sının X kuşağı, %30.8' sinin Y kuşağı ve %38.6' nın Z kuşağı olduğu bulunmuştur. X kuşağının %46.3' ünün dismenore yakınması menarştan itibaren başlamışken, Y kuşağının %55.7' isi ve Z kuşağının %47.2' si menarştan itibaren dismenore deneyimlemiştir ($p<0.05$). X kuşağının %51.2' i, Y kuşağının 52.3' ü, Z kuşağının ise %42.4' ü mestruasyonun ilk günü dismenore yaşamakta olduğunu belirtmiştir ($p<0.05$). Y ve Z kuşağının dismenoreyi daha fazla gidermeye çalıştığı ve X ve Y kuşağının büyük bir kısmının dismenoreyi gidermek için ağrı kesici aldığı, Z kuşağının ise dinleme, abdomene masaj yapma, egzersiz yapma gibi ilaç dışı yöntemleri kullandığı saptanmıştır ($p<0.05$). Dismenorenin, Y ve Z kuşağının günlük aktivitelerini ve iletişim/ilişkilerini X kuşağından daha fazla etkilediği engellediği bulunmuştur ($p<0.05$). Dismenorenin ilk ortaya çıkış zamanının, menstrual periyodu etkilediği sürenin, dismenore ile baş etmeye çalışma durumunun ve kullanılan yöntemlerin, dismenorenin günlük aktiviteleri ve iletişim/ilişkileri engelleme durumunun kuşaklar arasında farklılık gösterdiği bulunmuştur.

Anahtar Kelimeler: Dismenore, Kuşak, X, Y, Z

1. INTRODUCTION

Dysmenorrhea is among the most commonly encountered gynecological problems in women (1–3). Dysmenorrhea, which is also called painful menstruation, could sometimes be accompanied by headache, dizziness, diarrhea, bloating, nausea and vomiting, backache, and leg pain (4–7). Dysmenorrhea has been shown to affect women's quality of life negatively and cause attendance problems at school or work life as well as restrictions in other daily life activities (4,8). Recent studies have shown that 10% of women cannot go to work or perform their daily life activities 1 to 3 times monthly due to dysmenorrhea (8). Besides, dysmenorrhea is reported to be the most important cause of school absenteeism among young girls (3,9). Given that the prevalence of dysmenorrhea among university students ranges from 51% to 92.5% (4,10,11), it is clear that dysmenorrhea affects young girls' life substantially (5–7,12).

The literature indicates many factors affecting the prevalence and severity of dysmenorrhea, which includes early menarche, advanced age, long-lasting menstruation bleeding, history of dysmenorrhea in family, smoking and drinking alcohol, and caffeine consumption (5,10,13–18). Studies show that a history of dysmenorrhea in one of the family members is an important factor in the prevalence of dysmenorrhea (1,19–22). Some researchers claimed that daughters of mothers with menstrual complaints experienced menstrual pain associated with the behaviors learned from their mother (22,23). This finding brings the question of "Is dysmenorrhea inherited from generation to generation?" to mind. However, the literature includes no studies that investigated the dysmenorrhea experiences of generations. Therefore, this study aimed to identify the differences between the dysmenorrhea experiences of generations.

2. MATERIAL AND METHODS

This study adopted a descriptive design. It was conducted in the nursing faculty of a public university located in the eastern part of Turkey. The draw method was used to determine the students who formed the sample of the study. As a result of the draw, female students enrolled in the 3rd year of nursing were included in the sample. The sample of the study consisted of 150 female students and their mothers and sisters, if any. Thus, the sample of the study consisted of 145 female students who met the inclusion criteria and accepted to participate in the study, and a total of 471 females, including mothers (144) and sisters (182) of these female students.

The women who were born between 1965 and 1979 represented Generation X, those who were born between 1980 and 1999 represented Generation Y and those who were born in 2000 and later represented Generation Z. Thus, Generation Y was composed of the participating female students, Generation X was composed of their mothers, and Generation Z was composed of the sisters (24).

The inclusion criterion was having a regular menstrual cycle. The exclusion criterion was using a pharmacological agent with the potential to affect the severity of dysmenorrhea pain.

Data were collected through the "Participant Information Form". The data from Generation Y was collected by the researcher in the classroom environment at the end of the course hours on weekdays. The students who were administered the Patient Information Form were given these forms and asked to administer the form to their mothers and sisters; hence, the data of Generations X and Z were collected by Generation Y. The severity of dysmenorrhea was identified through a measurement form similar to the VAS (Visual Analogue Scale) that can be scored between 0 and 10.

Participant Information Form: The form that was developed by the researchers in line with the related literature was composed of 17 questions that included the participants' characteristics regarding age, menstrual cycle, and dysmenorrhea (6,25,26).

Data Analysis

Data were analyzed using SPSS 22.0 package program on the computer. The analyses included number, percentages, means, and Chi-square analyses. The results were analyzed at a 95% confidence interval, and statistical significance was taken $p<0.05$.

3. RESULTS

The descriptive characteristics of the participants are displayed in Table 1. Of all the participating students, 30.6% were Generation X (39 to 55 years old), 30.8% were Generation Y (21 to 40 years old), and 38.6% were Generation Z (20 years old and below). Besides, 72.4% had a menarche age of 12 and over, 72.4% had menstruation of 21 to 35 days, and 64.3% had menstruation for 3 to 6 days.

It was found that 87% of the participants had dysmenorrhea, and 70.7% of those who had dysmenorrhea reportedly had a pain severity of 5 and above. While 43.9% of the participants stated that they had dysmenorrhea since the beginning of menstruation, 42.9% reported to have dysmenorrhea in the first 2-3 days. 59.9% of the participants tried to relieve dysmenorrhea, and the most commonly used methods included resting (40.1%), using pain killers (31.0%), and massaging abdomen (11%) respectively. Dysmenorrhea was found to affect daily activities in 61.2% of the participants and prevented communication/relationship in 62.3% of the participants. While 21.4% of the participants reported to have consulted a doctor due to dysmenorrhea, 75.2% reported to have dysmenorrhea history in the family (Table 1).

Table 1. Distribution of the participants' features related to menstruation and dysmenorrhea (N=471)

Variables	n	%
***Generations**		
X generation (39-55 age)	144	30.6
Y generation (21-40 age)	145	30.8
Z generation (20 age and below)	182	38.6
Menarche age (year)		
≤12	130	27.6
>12	323	72.4
Menstrual bleeding frequency (day)		
<21	84	17.8
21-35	355	75.4
>35	32	6.8
Menstrual bleeding length (day)		
<3	27	5.7
3-6	303	64.3
>6	141	29.9
Dysmenorrhea		
Yes	410	87.0
No	61	13.0
Dysmenorrhea pain severity		
<5	125	29.3
≥5	302	70.7
Time to start dysmenorrhea		
At the beginning of menstruation	207	43.9
6 months-2 years after menstruation	113	24.0
During stressful periods	48	10.2
After an infection with the reproductive organs	21	4.5
After an operation on the reproductive organs	6	1.3
Other (in winter, when excessive caffeine is consumed, etc.)	22	4.7
Dysmenorrhea length		
First day of menstruation	150	31.8
The first 2-3 days of menstruation	202	42.9

During menstruation	57	12.1
Other (up to 2 days before menstruation, 2-3 days after menstruation etc.)	11	2.3
Relieve dysmenorrhea		
Yes	282	59.9
No	140	29.7
Ways to relieve dysmenorrhea**		
Using pain killers	146	31.0
Resting	189	40.1
Exercising	28	5.9
Distraction	45	9.6
Massaging the abdomen	52	11.0
Healthy eating	31	6.6
Dysmenorrhea prevents daily activities		
Yes	257	61.2
No	163	38.8
Dysmenorrhea interferes with communication/relationships		
Yes	258	62.3
No	156	37.7
Consulting a doctor for dysmenorrhea		
Yes	87	21.4
No	318	78.6
***** Presence of dysmenorrhea in family history**		
Yes	354	75.2
No	117	24.8

* The average age: 28.77±12.77 (Min: 13; Max: 55), ** More than one answer was given, *** Mother, sister, aunt

Table 2 presents the dysmenorrhea-related characteristics of the participants. While 46.3% of Generation X had dysmenorrhea complaint since menarche, 55.7% of Generation Y and 47.2% of Generation Z experienced dysmenorrhea since menarche ($p<0.05$). 51.2% of Generation X, 52.3% of Generation Y, and 42.4% of Generation Z reported to have experienced dysmenorrhea on the first day of menstruation (p:0.035). 54.8 % of Generation X, 73.3% of Generation Y, and 70.7% of Generation Z tried to relieve dysmenorrhea ($p<0.05$). While the majority of Generation X (42.3%) reported to use pain killers to relieve dysmenorrhea, Generations Y and Z reported to use methods apart from pain killers such as resting, massaging the abdomen, and exercising ($p<0.05$). Dysmenorrhea was found to affect the daily life activities of 51.2% of Generation X, 63.8% of Generation Y, and 66.5% of Generation Z ($p<0.05$). Besides, dysmenorrhea was found to prevent communication/ relationships in 52.1 % of Generation X, 63.6% of Generation Y, and 68.9% of Generation Z ($p<0.05$). However, no differences were found between the generations in terms of experiencing dysmenorrhea, dysmenorrhea pain severity, consulting a doctor due to dysmenorrhea, and having dysmenorrhea history in the family ($p>0.05$) (Table 2).

Table 2. Distribution of the dysmenorrhea-related characteristics by the Generations (N=471)

	X generation (39-55 age)	**Y generation (21-40 age)**	**Z generation (≤20 age)**	**Statistical testing and significance**
Dysmenorrhea				
Yes	118(81.4)	129(89.6)	163(89.6)	X2: 5.973
No	27(18.6)	15(10.4)	19(10.4)	p>0.05
Dysmenorrhea pain severity				
<5	44(34.9)	40(30.5)	41(24.1)	X2: 4.224
≥5	82(65.1)	91(69.5)	129(75.9)	p>0.05
Time to start dysmenorrhea				
At the beginning of menstruation	57(46.3)	73(55.7)	77(47.2)	X2: 41.530
6 months-2 years after menstruation	22(17.9)	33(25.2)	58(35.6)	p<0.05
During stressful periods	15(12.2)	16(12.2)	17(10.4)	

After an infection with the reproductive organs	15(12.2)	0(0.0)	6(3.7)	
After an operation on the reproductive organs	3(2.4)	0(0.0)	3(1.8)	
Other (in winter, when excessive caffeine is consumed, etc.)	11(8.9)	21.2	2(1.2)	
Dysmenorrhealength				
During menstruation	40(32.5)	51(38.6)	59(35.8)	X2: 13.577
First day of menstruation	63(51.2)	69(52.3)	70(42.4)	p<0.05
The first 2-3 days of menstruation	15(12.2)	9(6.8)	33(20.0)	
Other (up to 2 days before menstruation, 2-3 days after menstruation etc.)	5(4.1)	3(2.3)	3(1.8)	
Relieve dysmenorrhea				
Yes	68(54.8)	96(73.3)	118(70.7)	X2: 11.607
No	56(45.2)	35(26.7)	49(29.3)	p<0.05
Ways to relieve dysmenorrhea				
Using pain killers	47(42.3)	54(51.9)	45(27.6)	X2: 16.752 p<0.05
Resting	28(25.2)	64(53.8)	97(57.1)	X2: 32.892 p<0.05
Exercising	3(3.0)	8(9.9)	17(11.2)	X2: 7.091 p<0.05
Distraction	6(5.9)	15(16.7)	24(15.2)	X2: 6.362 p<0.05
Massaging the abdomen	3(3.0)	22(23.2)	27(17.2)	X2: 17.253 p<0.05
Healthy eating	8(7.9)	10(11.6)	13(8.4)	X2: 0.916 p>0.05
Dysmenorrhea prevents daily activities				
Yes	63(51.2)	83(63.8)	111(66.5)	X2:7.493
No	60(48.8)	47(36.2)	56(33.5)	p<0.05
Dysmenorrhea interferes with communication/relationships				
Yes	63(52.1)	82(63.6)	113(68.9)	X2: 8.529
No	58(47.9)	47(36.4)	51(31.1)	p<0.05
Consulting a doctor for dysmenorrhea				
Yes	21(17.2)	34(26.0)	32(20.9)	X2: 5.129
No	101(82.8)	96(74.0)	121(79.1)	p>0.05
Presence of dysmenorrhea in family history				
Yes	106(73.1)	118(81.9)	130(71.4)	X2: 5.236
No	39(26.9)	26(18.1)	52(28.6)	p>0.05

4. DISCUSSION

The concept of generation is defined as “a community composed of people who are affected by the same social changes, economic problems and historical developments” (27). It is reported that individuals in similar age groups who encounter same social, political, and economic events could have similar personality characteristics, attitudes, behaviors, mentality and reactions against events (28). In line with this information, individuals from the same generation are considered to demonstrate similarities in terms of the ways they experience, express, and cope with pain. The findings of this study, which aimed to investigate the differences between the generations in experiencing dysmenorrhea are discussed in line with the literature below.

Dysmenorrhea is a painful process most women complain about. The prevalence of dysmenorrhea demonstrates differences from country to country. While its prevalence in the world

ranges from 16% to 93% (29,30), its prevalence in Turkey ranges from 58.2% to 89.5% (31). This study found the dysmenorrhea prevalence as 87% (Table 1). In their systematic review, Ju et al. (2014) found the dysmenorrhea prevalence between 16% and 91%. In their study conducted with adolescents, Bahrami et al. (32) reported the dysmenorrhea prevalence as 68.6%. Balık et al. (33) reported that 67.9% of the participants had dysmenorrhea. In their study conducted in India, Chauhan and Kodrani (26) reported the dysmenorrhea prevalence as 75 %. Aktaş (6) reported the dysmenorrhea prevalence as 84%. The findings of this study are in line with the literature.

Two-third of the women participating in this study reported the dysmenorrhea pain severity as 5 and above. Almost half of them stated that they had dysmenorrhea since the beginning of menstruation, and similarly about half of them experienced dysmenorrhea on the first 2-3 days of menstruation. Two-third of them tried to relieve dysmenorrhea, and the most commonly used methods included resting, using pain killers, and massaging abdomen respectively. Dysmenorrhea was found to prevent the daily activities of more than half of the participants, and communication/relationships of two-thirds of them. More than one-fifth of the participants reported to consult a doctor due to dysmenorrhea, and approximately three-fourths reported to have dysmenorrhea history in the family (Table 1). Aktaş (6) used VAS to evaluate dysmenorrhea pain severity and found the average pain severity as 5.78±2.45, almost half of the students were found to experience the dysmenorrhea pain severity at a medium level, and the majority of them were found to experience pain on the first day of menstruation. The majority of the participants reported to use analgesics to cope with the dysmenorrhea pain. Methods apart from medicine included mainly resting, using a hot compress on the abdomen, massaging, and walking. Besides, 69.7% of the students had negative effects on their daily activities due to dysmenorrhea, 27.4% had doctor follow-ups due to dysmenorrhea, and 84% reported to have a family member with dysmenorrhea. Chauhan and Kodnani (26) reported that dysmenorrhea had negative effects on 73% of the participants' daily activities and 64% of the participants' social relationships; 28% used medicine to relieve dysmenorrhea pain, 65% used such methods as resting at home and consuming herbal tea they make at home. Faramarzi and Salmalian (21) reported that 50% of the participants had family members with dysmenorrhea. Ucar et al (25) also found that 65.6% of the participants had dysmenorrhea history in the family. These findings are in line with the studies conducted by Aktaş (6), Chauhan and Kodnani (26), Faramarzi and Salmalian (21) and Ucar et al. (25).

Differences were detected between the generations X, Y, and Z in terms of the onset and duration of dysmenorrhea ($p<0.05$). Generation Z was found to experience dysmenorrhea earlier than the other generations. Generation Z follows technology closely and uses social networks actively, which is the most important feature that makes them different from other generations. Besides, Generation Z has the highest education level (34). Therefore, the probability of learning about menarche before menstruation is higher than other generations for Generation Z. Aktaş (6) reported that receiving education about menstruation is an important risk factor for dysmenorrhea. The difference was considered to result from the speed and diversity of Generation Z in obtaining knowledge and sharing (35).

This study found that Generations Y and Z had more attempts for relieving the dysmenorrhea complaints. While the majority of Generation X and Y stated that they used pain killers to relieve dysmenorrhea, Generation Z reported to use methods other than medicine such as resting, massaging the abdomen, and exercising ($p<0.05$). Education life of the majority of the Generations Y and Z continue, and they use technology and social network actively. In this way, they can share information rapidly. Besides, they can adapt to changes easily (34). The difference is considered to result from the fact that Generations Y and Z can access current knowledge easily and adopt healthy life behaviors rapidly (35).

Dysmenorrhea could have negative effects on attendance to classes, school success, social activities, family relationships, and quality of life (21). Many women cannot go to school or work a

few times a month due to dysmenorrhea (5). This study found that daily activities and communication/relationships of mostly Generations Y and Z were affected by dysmenorrhea negatively; Generation X was found to have been affected at the minimum level ($p<0.05$). The majority of the women forming Generation X were either housewives or retired women. Besides, they utilize technology for communication in a more limited way. For this reason, they communicate with a smaller number of people, and their activities are generally the activities that cause no problems when they are delayed such as responsibilities in the house (36). Generations Y and Z, on the other hand, are composed of women who are actively involved in work-life or attend school to receive education. Moreover, Generations Y and Z also communicate with many people by using technology when they are at home (37). The difference is considered to result from this fundamental difference between the generations.

5. CONCLUSION

This study found that dysmenorrhea demonstrated differences between the generations in terms of the onset of dysmenorrhea, duration of the effects on menstrual period, daily activities and prevention of communication/relationships, coping with the dysmenorrhea pain, and ways of coping. Differences in the problem-solving ways and health-seeking behaviors of Generations X, Y, and Z force health workers to provide their patients with alternatives. Health professionals are recommended to consider the differences between generations and develop appropriate approaches while they are providing treatment and care to women with dysmenorrhea complaints.

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Ethical considerations

Before the study was conducted, approval was taken from the Health Sciences Non-invasive Clinical Studies Ethics Committee of the related university (2019/6-29). Besides, written approval was obtained from the institution where the study was conducted. The participating students were informed about the consent form, and their written approval was obtained.

Conflict of interest

We declare "No conflict of interest for this study"

Availability of data and material

Not applicable

Code availability

Not applicable

Author Contributions

Study conception and design: GN, HU, STT.

Data collection: GN, HU.

Data analysis and interpretation: GN, HU.

Drafting of the article: GN, HU, STT.

Critical revision of the article: STT

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