

Nursing Students' Menstrual Experiences and Period Poverty Mehtap GÜMÜŞAY*¹, Zehra ACAR²

¹Ordu University, Faculty of Health Sciences, Nursing Department, Ordu, Türkiye

²University of Health Sciences, Hamidiye Faculty of Nursing, Nursing Department, İstanbul, Türkiye

Mehtap Gümüşay, ORCID No: 0000-0002-4497-1365, Zehra Acar, ORCID No: 0000-0002-1923-3096

ARTICLE INFO

This study was presented as an oral presentation at the 1st International Nursing Studies Congress.

Received : 16.09.2024

Accepted : 26.09.2024

Keywords

Menstrual Health;
Menstrual Experiences;
Period Poverty;
Experience

* Corresponding Author

Zehra Acar
zehraky3434@gmail.com

ABSTRACT

The aim of this study was to determine the menstrual experiences and period poverty status of nursing students. The study was conducted with 234 students who were menstruating, using Personal Information Form and Menstrual Practice Needs Scale (MPNS) in May-June 2023. An average of 18.63 ± 9.26 pads was used during one menstrual period. Of the students, 14.1% had problems accessing menstruation products in the last year, 9.4% were hesitant to obtain menstruation products, 48.3% had financial difficulties while procuring the products, with 23.5% not using sanitary pads. The MPNS mean scores of the students were 2.31 ± 0.40 for the material and home environment needs subscale, 1.88 ± 0.55 for the transportation and school environment needs subscale, 1.70 ± 0.64 for the material reliability concerns subscale, and 2.42 ± 0.49 for the replacement and destruction insecurity subscale. As a result of the study, some students had financial difficulties in obtaining menstrual products, therefore they used menstrual products for longer than they should be used.

Hemşirelik Öğrencilerinin Menstrual Deneyimleri ve Regl Yoksulluk Durumları

MAKALE BİLGİSİ

Bu çalışma 1. Uluslararası Hemşirelik Çalışmaları Kongresinde sözel bildiri olarak sunulmuştur.

Geliş: 16.09.2024

Kabul: 26.09.2024

Anahtar Kelimeler

Menstruasyon;
Menstrual Sağlık; Regl
Yoksulluğu; Deneyim

* Sorumlu Yazar

Zehra Acar
zehraky3434@gmail.com

ÖZ

Bu çalışmanın amacı hemşirelik öğrencilerinin menstrual deneyimleri ve regl yoksulluk durumlarını belirlemektir. Çalışma, Mayıs-Haziran 2023 tarihleri arasında menstruasyon gören 234 öğrenci ile Kişisel Bilgi Formu ve Menstruel Deneyimler Ölçeği (MDÖ) kullanılarak yürütülmüştür. Bir menstruasyon döneminde ortalama $18,63 \pm 9,26$ ped kullanılmıştır. Öğrencilerin %14,1'i son bir yılda menstruasyon ürünlerine ulaşmakta sorun yaşamış, %9,4'ü menstruasyon ürünlerini temin ederken çekinmiş, %48,3'ü ürünleri temin ederken maddi zorluk çekmiş ve %23,5'i hijyenik ped kullanmamıştır. Öğrencilerin MDÖ puan ortalamaları; malzeme ve ev ortamı ihtiyaçları alt boyutu için $2,31 \pm 0,40$, ulaşım ve okul ortamı ihtiyaçları alt boyutu için $1,88 \pm 0,55$, malzeme güvenilirliği endişeleri alt boyutu için $1,70 \pm 0,64$ ve değiştirme ve imha güvensizliği alt boyutu için $2,42 \pm 0,49$ olarak bulunmuştur. Çalışma sonucunda bazı öğrencilerin menstruasyon ürünlerine ulaşmada maddi zorluk yaşadıkları, bu nedenle menstruasyon ürünlerini gereğinden uzun süre kullandıkları bulunmuştur.

INTRODUCTION

In women's life, menarche is accepted as the beginning of the adolescence period (1). Menstruation is a physiological, natural, and cyclical event that occurs every 21-35 days and lasts 2 to 7 days. Menstrual health and hygiene, which has central importance for women every month from adolescence to menopause, constitute an important aspect of women's health (2). The term menstrual health and hygiene (MHH) is used to describe the needs experienced by menstruating women, including safe and easy access to information, materials and infrastructure necessary to manage their menstrual periods with dignity and comfort (3). There is increasing global interest in MHH. Menstrual health is integral to improving global population health, achieving sustainable development goals, and promoting gender equality and human rights (4). MHH is a fundamental right for girls and women worldwide and is aligned with a number of the United Nations' sustainable development goals, including good health and well-being (goal 3), quality education (goal 4), gender equality (goal 5), and clean water and sanitation (goal 6) (5). There is an overdue need to assess and address the importance of MHH to achieve progress for overall sustainable development goals by 2030 (2,3).

Essential components of menstrual health include access to the individual's preferred menstrual product, menstrual health information, sanitation and waste facilities, appropriate and timely health services and resources (6). Advocacy to empower women and girls to access resources safely and manage their menstrual cycles with privacy and dignity each month is crucial to participation in their physical, psychosocial health and development (3). The concept of period poverty, which is becoming increasingly important today, refers to the lack of access to menstrual products or necessary sanitation facilities or adequate and timely information needed during menstruation, which is an important part of reproductive health and a basic human right (3). The causes of period poverty include access to products, inability to purchase products, and fear of embarrassment, along with environmental reasons such as lack of materials and sanitary facilities and loneliness (7). Globally, women and girls have many unmet menstrual health needs. The World Bank stated that 500 million women and girls worldwide do not have access to adequate facilities and adequate menstrual products for menstrual hygiene management (8). Women and girls require access to quality menstrual hygiene products in order to manage their periods in a safe, hygienic, and dignified manner. Menstrual hygiene products, including reusable and disposable pads as well as reusable menstrual cups, are essential for managing menstrual flow (9). More than 80% of menstruating women in Bangladesh use inappropriate materials (e.g., old fabric pieces) instead of hygienic products such as pads or tampons (10). Inadequate water, sanitation and hygiene facilities, especially in public places such as schools, workplaces or health centers, can be major barriers for women and girls. Lack of separate toilets with doors that can be safely closed, or facilities to dispose of used sanitary pads and water for washing hands, can leave women and girls experiencing difficulties in maintaining menstrual hygiene in a private, safe and dignified way. Dirty toilets used by women in schools, workplaces or other social environments and lack of adequate hygiene materials negatively affect their health, education and quality of life (11). Due to students' shared use of crowded environments such as dormitories, access to genital hygiene products becomes difficult, maintaining genital hygiene becomes challenging, and the tendency for genital infections increases (12).

Feeling ashamed to talk about menstruation and menstrual taboos can cause women to acquire insufficient information about menstrual hygiene management (13). The issue of period poverty increased by cultural taboos surrounding menstruation. Access to proper menstrual hygiene management is often limited due to various factors, such as lack of access to affordable menstrual products, inadequate sanitation facilities, and cultural taboos surrounding menstruation (14). Women experiencing menstrual problems rarely seek healthcare, partly because some menstrual health problems tend to be normalized, ignored, and culturally taboo (14, 15). Studies reveal that not using hygienic methods during menstruation is one of the factors causing

reproductive health morbidity among women. Not using hygienic menstrual products is positively associated with reproductive tract infection and vaginal discharge (16).

Studies to determine access to menstrual hygiene products and appropriate environments, as well as their lack of access, for women and girl are of great importance. The purpose of this study, planned for these reasons, is to examine nursing students' menstrual practice needs and access to hygiene products within the framework of the concept of period poverty.

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Study Design

The research was planned as a descriptive study.

Population

The population of the research consisted of women studying in the nursing department at a state university. It was planned to reach the entire universe without choosing a sample. 234 women studying in the nursing department who volunteered to participate were included in the research.

Research Questions

1. What are the menstrual practice needs of nursing students?
2. What is the period poverty situation of nursing students?

Research data were collected face to face between 30.05.2023 and 16.06.2023. The data collection process took 10-15 minutes.

Data Collection Tools

The data for the study were collected with the Personal Information Form developed by the researchers and the "Menstrual Practice Needs Scale", with Turkish validity and reliability study conducted by Vural and Varışoğlu (2021) (17).

Personal Information Form

The personal information form, created by the researchers in line with the literature, consists of 20 questions regarding period poverty. The form includes questions about socio-demographic characteristics such as age, class of education, economic status, and place of residence, and about menstrual history, including questions such as age at menarche, duration and frequency of menstruation, dysmenorrhea, presence of premenstrual syndrome, difficulty in accessing menstrual products, and financial difficulty in accessing menstrual products (2,12-14).

Menstrual Practice Needs Scale (MPNS)

This scale consists of 36 items developed by Hennegan et al. (2020) to evaluate products, hygiene and practices used in the menstrual cycle. The Turkish validity and reliability study was conducted by Vural and Varışoğlu (2021) (17,18). The scale consists of four subscales: material and home-environment needs (items 1, 2, 3, 4, 10, 11, 12, 13, 16, 17, 18), transportation and school environment needs (items 8, 9, 23, 24, 25), material reliability concerns (items 5, 6, 7), and change and disposal insecurity (items 14, 15, 19, 20, 21, 22, 26, 27). Scoring is on a four-point Likert-type scale; never = 0, sometimes = 1, often = 2, and always = 3 for positively coded items and inversely for negatively coded items. The items included in the "material reliability concerns" and "change and disposal insecurity" subscales are calculated in reverse. Higher scores from the scale represent more positive menstrual experiences. Arithmetic mean is used in calculating the total score of the scale and its subscales. The Cronbach alpha value is .84 material and home-environment needs

subscale, .72 for transportation and school environment needs subscale, .72 for material reliability concerns subscale and .80 for change and disposal insecurity.

Ethical Dimension of Research

Ethical approval for the research was obtained from Ordu University Scientific Research Ethics Committee (Letter no: 2023/157, date: 30.05.2023) and written institutional permission to conduct the research was obtained from Ordu University Faculty of Health Sciences, Department of Nursing (Letter no: 0865236, date: 30.05.2023). Written institutional permission was obtained from the Head of the Nursing Department to conduct the research. Informed written consent was obtained from women who volunteered to participate in the study. The principles of the Declaration of Helsinki were followed in the research. Permission to use the Menstrual Practice Needs Scale was received from the authors via e-mail.

Data Analysis

Data were analyzed with Statistical Program for Social Science 20.0 (SPSS) using descriptive and parametric statistical analysis methods. First, descriptive analyses were conducted for the students' descriptive characteristics. These analyses were determined as frequency, percentage, mean and standard deviation. The ANOVA test was used to compare the number of pad usages between classes, and the student t test was used to compare Menstrual Practice Needs Scale scores. Statistical significance was evaluated as $p < 0.05$.

Limitations of the Study

The limitation of this study is that it was conducted with female students from only one university. For this reason, the findings cannot be generalized to different institutions and different regions in our country.

RESULTS AND DISCUSSION

The mean age of the students in the research was 21.00 ± 1.53 years. Of the students, 31.6% were second year students, 76.1% had income equal to their expenses, and 48.3% lived in the city center (Table 1).

Table 1. Data related to socio-demographic characteristics of students (N=234)

Variables	n	%
Class		
1st	63	26.9
2nd	74	31.6
3rd	62	26.5
4th	35	15.0
Economic condition		
Income < expenses	37	15.8
Income = expenses	178	76.1
Income > expenses	19	8.1
Living place		
Province	113	48.3
County	86	36.7
Village	35	15.0

When the menstruation history of the students is evaluated, the average age of menarche was 13.16 ± 1.31 years, they used an average of 4.76 ± 1.82 pads on a heavy day, and an average of 18.63 ± 9.26 pads during a menstrual period. Of the students, 47.4% had a menstrual period of 6-7 days, 86.8% had a cycle between 21-35 days, and 60.7% experienced dysmenorrhea. All of the students used sanitary pads during their menstrual period, and 23.5% also used toilet paper. Of the students, 77.8% stated that there was no change in the frequency of pad use in the last year, and

14.1% stated that they had problems accessing menstrual products in the last year. Among the students, 48.3% stated that they had financial difficulties in purchasing menstrual products in the last year, and 17.1% stated that there were times when they could not access menstrual products at all in the last year (Table 2).

Table 2. Menstrual characteristics of students (N=234)

Variables	Mean±Sd	Min-Max
Menarche age	13.16±1.31	9-18
Number of pads used on heavy menstrual days	4.76±1.82	2-12
Number of pads used during a menstrual period	18.63±9.26	4-80
Monthly budget for menstrual products (₺)	80.83±61.72	15-600
	n	%
Menstruation duration		
2-3 days	5	2.1
4-5 days	98	41.9
6-7 days	111	47.4
More than 7 days	20	8.6
Menstruation frequency		
<21 days	7	3.0
21-35 days	203	86.7
>35 days	24	10.3
Experiencing dysmenorrhea		
Yes	142	60.7
Sometimes	81	34.6
No	11	4.7
Product used during menstrual period*		
Sanitary pads	234	100
Toilet paper	55	23.5
Tampon	2	0.4
Menstrual cup	2	0.4
Washable pads	1	0.2
Menstrual panties	1	0.2
Frequency of pad change on a heavy bleeding day		
Every 1-2 hours	41	17.5
Every 3-4 hours	134	57.3
Every 5-6 hours	46	19.7
7 hours or more	13	5.5
Has there been a change in the frequency of your pad use in the last year?		
No, it didn't	182	77.8
I change it more often	39	16.7
I change less	13	5.5
Has there been a change in the frequency of your pad use in the last month?		
No, it didn't	200	85.5
I change it more often	26	11.1
I change less	8	3.4
Have you had any problems accessing menstrual products in the last year?		
Yes	**33	14.1
No	201	85.9
Have you had any problems accessing menstrual products in the last month?		
Yes	**23	9.8
No	211	90.2

Have you been hesitant/embarrassed when purchasing menstrual products in the last year?		
Yes	22	9.4
No	212	90.6
Have you had financial difficulties purchasing menstrual products in the last year?		
Yes	113	48.3
No	121	51.7
Have you ever been unable to access menstrual products due to financial reasons in the last year?		
Yes	40	17.1
No	194	82.9
What did you do when you couldn't buy menstrual products?*		
I used items like cloth, napkins, or toilet paper	11	4.7
I used one pad for longer	9	3.8
I borrowed menstrual products	22	9.4

₺: Turkish lira, * More than one option is marked, ** When asked about the reason for the problem students had in accessing menstrual products, they stated that it was financial reasons.

When the number of pads used on heavy menstrual days by the students participating in the research was examined according to their year, 3rd and 4th year students used more pads and the difference was statistically significant ($p < 0.05$). When the number of pads used during a menstrual period was examined, the average number of pads of 3rd year students was higher and there was a statistically significant difference between the groups ($p < 0.05$) (Table 3).

Table 3. Comparison of the number of pads used according to students' grades

Variables	Number of pads used on heavy menstrual days		Number of pads used during a menstrual period	
	Mean±Sd	Test / p	Mean±Sd	Test / p
1st year	4.12±1.19 ^a	F=12.148 p=.000	16.39±7.01 ^a	F=6.594 p=.000
2nd year	4.27±1.88 ^a		16.75±8.94 ^a	
3rd year	5.53±1.93 ^b		22.59±11.63 ^b	
4th year	5.62±1.64 ^b		19.62±6.11 ^a	

$b > a$, F: One Way Anova test value

Menstrual Practice Needs Scale subscale score averages were 2.31 ± 0.40 for the “material and home-environment needs” subscale, 1.88 ± 0.55 for the “transportation and school environment needs” subscale, 1.70 ± 0.64 for the “material reliability concerns” subscale, and 2.42 ± 0.49 for the “change and disposal insecurity” subscale (Table 4).

Table 4. MPNS subscales scores

Menstrual Practice Needs Scale Subscales	Mean± Sd	Min-max	Cronbach Alpha
Material and home-environment needs	2.31± 0.40	0-3	.84
Transportation and school environment needs	1.88± 0.55	0-3	.72
Material reliability concerns	1.70± 0.64	0-3	.72
Change and disposal insecurity	2.42± 0.49	0-3	.83

The mean scores of the students who had problems accessing menstrual products in the last year and who stated that they had financial difficulties were lower for the “material and home-environment needs” subscale and “material reliability concerns” subscale and there were statistically significant differences between the groups ($p < 0.05$) (Table 5).

Table 5. Comparison of MPNS subscales scores according to students’ access to menstrual products

Variables		Material home-environment needs	and Transportation and school environment needs	Material reliability concerns	Change and disposal insecurity
Have you had any problems accessing menstrual products in the last year?	Yes	2.17±0.41	1.78±0.36	1.40±0.58	2.32±0.38
	No	2.34±0.40	1.90±0.57	1.75±0.64	2.44±0.51
t / p		-2.232/.027	-1.524/.133	-2.908/.004	-1.280/.202
Have you had financial difficulties purchasing menstrual products in the last year?	Yes	2.24±0.36	1.81±0.47	1.59±0.61	2,41±0,36
	No	2.37±0.43	1.95±0.60	1.80±0.66	2.44±0.59
t / p		-2.468/.014	-1.914/.057	-2.483/.014	-.376/.707

t: Independent t test value

In this study, nursing students' menstrual practice needs and access to hygiene products were examined within the framework of the concept of period poverty. In this study, it was determined that all women use sanitary pads, and in addition, approximately one in four people use toilet paper. Another study conducted in our country found that 85.1% of women use sanitary pads, and 13.8% use products such as cloth (19). Economic difficulties come to the fore in the use of products other than sanitary pads (3). The study found that a significant portion of the students had difficulty accessing menstrual products, especially due to financial reasons. Students used pads for longer than the required time, used products such as fabric, napkins or toilet paper due to the difficulty they had in accessing menstrual products, and borrowed menstrual products. In a study conducted with 400 students in Palestine, menstrual products were expensive for 14.5% of students, some did not have the money to buy these products, and about a quarter used alternative cheaper products such as toilet paper, diapers and reusable clothing (3). At the same time, 15.3% of the students stated that they always/sometimes had to use menstrual products that they did not like because they were cheaper (3). In a study conducted with university students in our country, it was stated that 80% of the participants found genital hygiene products expensive and 38.7% had financial difficulties when purchasing these products (12). In a qualitative study, almost all women during the COVID-19 period switched from their preferred brand or type of menstrual product to lower-cost and less quality products or temporary menstrual supplies such as toilet paper and paper towels due to changes in financial situation (6). In a study conducted with 471 university students, 14.2% of women experienced period poverty in the last year, and 10% experienced this every month. The most frequently mentioned coping methods were borrowing products (72.8%), using another material instead of a menstrual product (sanitary pad) (52.6%), using pads or tampons for longer than recommended (48.3%), and not using products (26.3%) (8). The literature shows that in cases of period poverty, adolescents and young women address menstrual bleeding with unhygienic methods such as old reusable cloths, tissues, leaves, pieces of wool, or cotton. In one study, it was found that adolescent girls who were unable to afford menstrual hygiene products were more than

twice as likely to experience inadequate menstrual hygiene (20). Another study reported a higher prevalence of urogenital symptoms and infections among those using inappropriate menstrual products (21). Along with our study results, which are compatible with the literature, it is thought to be for this reason the economic problems experienced around the world, especially after the COVID-19 pandemic, have limited women's access to menstrual products and caused them to turn to practices that will negatively affect their reproductive health.

Providing appropriate places and conditions to meet menstrual needs is necessary to maintain menstrual health. A study reported that 71.9% of students used menstrual products for longer than recommended for reasons such as lack of water, soap, privacy, illuminated toilets, garbage bins and sanitary pads at school and university (3). In a study conducted with adolescent and young immigrant women, 61% of the menstruating participants could not wash their hands when they wanted, and the majority (75.9%) did not feel safe using the toilet. It was also reported that one-third of women did not feel comfortable carrying pads with them, and almost all of them (93.2%) were worried that someone might see where the pads were thrown away (22). In a study conducted with 200 women aged 14-24 years, 68% of the participants had unmet menstrual needs, 65% had unmet needs related to transportation and school environment needs, and 42% could not find a clean area at school to change menstrual products according to MPNS-36. In the same study, it was reported that 39% of those who reported attending school regularly did not come to school due to menstruation (23). As a result of this study, the students' mean MPNS "transportation and school environment needs" subscale was relatively low and their needs were higher, similar to the literature.

Problems that arise with period poverty include the use of low-quality products due to inability to access menstrual products, the use of pads for a longer period of time, or the use of products such as toilet paper and cloth other than sanitary pads. These problems are associated with material reliability concerns in women. In a study, the average score for students on the MPNS material reliability concerns subscale was 1.8 ± 0.17 , 90% of them had material reliability concerns, and 31% were often or always worried that menstrual materials would leak or slip out of place (23). As a result of this study, it was similarly determined that the average score for the MPNS material reliability concerns subscale was lowest, and students' material reliability concerns were relatively higher. In addition, as a result of the study, students with problems accessing menstrual products and financial difficulties had lower MPNS "material and home-environment needs" and "material reliability concerns" subscale score averages. It is very important that students have access to sanitary pads of appropriate quality and number in terms of having a positive menstrual experience and maintaining their menstrual health.

In order to maintain menstrual health, it is necessary to use pads appropriately as well as having access to sanitary pads. In this study, 3rd and 4th year students used pads more on busy days than 1st and 2nd year students. It is thought that the fact that 3rd and 4th year students took a course on women's health and received training on menstrual health within the scope of the course brought about this positive result. For this reason, it is important to include issues related to reproductive health in the first stage of educational life.

CONCLUSION AND RECOMMENDATIONS

Policies developed to improve the menstrual hygiene of women and girls around the world, ensure gender equality and support reproductive health are gaining importance day by day. Sustainable Development Goals 6.2 target by 2030 is "Achieve access to adequate and equitable sanitation and hygiene for all, paying special attention to the needs of women and girls and those in vulnerable situations". Therefore, improving the accessibility of a safe water supply, hygiene, sanitation facilities and affordability of menstrual products and promoting maternal education are mandatory and should be part of government-level public health policy to prevent related health

issues, loss of economic output and education opportunities. For menstrual health management, women need to have access to clean and absorbent products and to be provided with private and safe areas where they can use these materials. Women and girls need to have access to menstrual hygiene products of sufficient quality and quantity in order to effectively and adequately ensure hygiene during their menstrual periods. In addition to providing access to clean and absorbent products for menstrual health, health education should also be provided on how and how often the products should be used. Nurses should be instrumental in spreading accurate information by providing training on menstrual health. Nurses should also conduct programs and studies that will create awareness for public health regarding the provision of products and environments. Countries need to take important steps in identifying these needs and providing appropriate services and conditions. Since the Menstrual Practice Needs Scale, which was used in the study to evaluate unmet menstrual needs, is a relatively new assessment tool, it has been used in a limited number of studies in the literature. There is a need for new studies that include a larger sample size evaluating women's menstrual needs and period poverty situations.

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