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Menstrual Problems Among College Students: Prevalens and Treatment Seeking Behaviors

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Abstract

Menstrual problems are highly prevalence, especially among young adults. However, the signs and symptoms of menstrual disorders are typically disregarded. This study aimed to evaluate the prevalence of menstrual problem and treatment seeking behavior. A cross-sectional study was conducted on 261 female college students. Data were collected using a structured questionnaire. Prevalence of premenstrual symptoms was 70.1%, and that of dysmenorrhea was 93.6%. Mothers were the main source (65%) of information about reproductive heatlh. Mood-swings/irritability (88.1%) and dysmenorrhea (93.5%) were most common of premenstrual symptoms and menstrual syndrome, respectively. Half of participants experienced severe dysmenorrhea (53.2%), however medical seeking behavior during menstrual period was poor (18.8%). Participants did not seek treatment because their menstrual problems did not interfere with their daily activities (80.2%). We conclude that health professionals should involve mothers in discussions about menstrual problems as mothers were the main source of information regarding reproductive health.

Keywords:
Menstrual problems, reproductive health, treatment seeking behaviors.

Abstrak

Masalah terkait menstruasi merupakan masalah kesehatan reproduksi yang umum terjadi dengan prevalensi yang tinggi terutama di kalangan dewasa muda. Namun, tanda dan gejala gangguan menstruasi sering diabaikan. Tujuan penelitian ini adalah untuk mengetahui prevalensi masalah menstruasi dan perilaku mencari pengobatan. Penelitian deskriptif cross-sectional dilakukan pada 261 mahasiswi. Data dikumpulkan menggunakan kuesioner terstruktur. Prevalensi gejala pramenstruasi sebesar 70,1%, dan prevalensi dismenore sebesar 93,6%. Informasi tentang kesehatan reproduksi sebagian besar berasal dari ibu (65%). Perubahan suasana hati/iritabilitas (88,1%) dan dismenorea (93,5%) adalah gejala pramenstruasi dan sindrom menstruasi yang paling umum. Lebih dari separuh peserta mengalami dismenore yang parah (53,2%), namun perilaku pencarian medis selama periode menstruasi sangat rendah (18,8%). Peserta tidak mencari pengobatan karena menganggap masalah menstruasi tidak mengganggu kegiatan sehari-hari (80,2%) dan enggan untuk minum obat (8%). Kesimpulannya adalah bahwa profesi kesehatan sebaiknya melibatkan para ibu dalam diskusi umum tentang masalah menstruasi karena ibu adalah sumber utama informasi terkait kesehatan reproduksi.

Kata Kunci

Masalah menstruasi, kesehatan reproducksi, perilaku mencari pengobatan

INTRODUCTION

Menstruation is a natural process that occurs throughout a woman's reproductive life which may be associated with various constitutional disorders [1]. There are various types of menstrual disorders, including dysmenorrhea, premenstrual symptoms, menorrhagia, polymenorrhea, abnormal vaginal bleeding, amenorrhea, and irregular menstruation [1]. Several studies have shown that a large proportion of the female population of reproductive age suffers from menstruation-related health issues [2, 3], whereas 39.7% of women aged 20-29 have vaginal discharge and pruritus vulvae . In Indonesia, the proportions of women with menstrual problems were ranged from 85.9% in Medan to 91.7% in Surakarta [4, 5].

Menstrual problems are one of the most common causes of absenteeism and poor academic performance among young females [6]. The problems can lead to more serious health conditions, such as cardiovascular disease and bleeding [7, 8]. Furthermore, over a third of women (38%) with menorrhagia, a condition with heavy menstrual bleeding, were referred for surgical intervention [9]. A previous study showed that 37.2% of women underwent a hysterectomy within 1-year of a referral for menorrhagia [10].

Many factors can affect menstrual patterns, including age of menarche, smoking, and physical activity [11]. There is also a growing evidence of an association between stress and menstrual problems in women [12]. Although conditions related to menstrual problems are not life threatening, they can seriously decrease the quality of life of many women and affect their mental health and their productivity [2]. The number of female's seeking treatment for premenstrual symptoms is on the increase globally; however, this is not the case in Indonesian context where only a few of female find treatment to overcome their menstrual problems (28%) [13]. Moreover, little is known about treatment seeking behaviors of female with menstrual problems. In this study, we assessed the magnitude of menstrual problems and treatment seeking behaviors among college students of Universitas Islam Negeri (UIN) Syarif Hidayatullah Jakarta, Indonesia.

METHOD

Study design

This was a cross-sectional study conducted from September to Oktober 2014 in Syarif Hidayatullah State Islamic University (UIN) Jakarta, a public university in Indonesia located in Ciputat, South Tangerang, Banten.

Samples of the Study

A total of 300 female students (1st to 3rd year of college) were chosen using systematic random sampling. However, 39 students were not able to reach during the study, resulting in a total of 261 participants included in the study (response rate = 87%). Written consent was obtained, and all the participants were assured that their identity would be kept confidential. A short, 15-minutes briefing was carried out to explain to participants the terminologies used in the questionnaires.

Data collection

Each participant was given a questionnaire to complete. The information collected included items relating to the participants' demographic background, and menstrual pattern (menarche age and cycle length in days), characteristics of blood loss, and history of dysmenorrhea, amenorrhea, and premenstrual symptoms, and treatment seeking behavior. The participants' demographic background included age, mother's education, residence, knowledge about female's reproductive health, sources of information related to female's reproductive health, physical activity, smoking behavior and stress. The reliability

and validity of the questionnaire was checked using the test-retest technique. The same questionnaire was completed by 20 students, with a gap of 3 weeks in between, to determine whether they answered in the same way. The reliability of the questionnaire was 0.807.

Frequency of premenstrual symptoms and menstrual symptoms were classified as usually (4-6 times), sometimes (1-3 times) and never during the last 6 months. The vaginal discharge' frequency and vulvar pruritus were classified as usually (weekly / almost daily), sometimes (2-4 weeks) and never during the last 6 months. The severity of menstrual problems was categorized into 3 levels: 1) severe if symptoms occurred and unable to perform daily activities), 2) moderate if no symptoms and disturbing, but still able to perform daily activities, 3) and mild if symptoms occurred, but do not interfere with daily activities. Information about stress and physical activity was collected using a series of questions adopted from previous studies. Stress was measured using Depression, Anxiety, and Stress Scale Questionnaire (DASS); physical activity was collected using the WHO Global Physical Activity Questionnaire. The total scores of 10 questions were calculated to define the level of knowledge; 1) low (≤5 right answer), 2) adequate (6-7 correct answer), 3) high (≥8 correct answer).

Statistical analysis

EpiData program was used for data entry and documentation of data. After data cleaning using EpiData program, we then exported the data into Microsoft Excel to perform data analysis. Participant characteristics were detailed using descriptive statistics, as were the prevalence of menstrual symptoms and treatment seeking behavior.

RESULTS AND DISCUSSION

Majority of the participant's age was less than 21 years old (95%). Participants' knowledge about reproductive health were more likely to be in average, and the source of information was mostly from their mothers (65%) although only 45% participants lived with their mothers and less than one third of mothers had diploma from primary schools. Participants were more likely to have normal cycle length of menstruation (73%), and had age of menarche ≥ 12 years (86%) (Table 1).

Table 1. Participants' characteristics, n=261

Characteristics	*n	%
Age, years		
<21	248	95,0
≥ 21	13	5,0
Residence		
Live in dormitory/rented room	131	50,2
Live with relatives	13	5,0
Live with parents	117	44,8
Mother's highest education		
Elementary school	37	14.2
Middle school	34	13,0
High school	102	39,1
College/university	88	33,7
Knowledge about health reproduction		
Low	73	28,0
Average	108	41,3
High	80	30,7
Source of information related health reproduction		
Mother	169	64,8
Father	7	2,7
Friends	112	42,9
Relatives	74	28,4
Teachers	163	62,4
Media	225	86,2
Health officer	2	0,8
Duration of menstruation cycle, days		
< 21 (polymenorrhea)	64	24,5
21-35 (normal)	200	72,8
36-90 (oligomenorrhea)	7	2,7
Age of menarche, years		
< 12	37	14,2
≥ 12	224	85,8

*n: number; %: percentage

Half of the participants reported premenstrual symptoms that they sometimes had, including lower backpain, sore breast and mood swings or irritability, while 52.9%

of participants reported never had headache. Participants reported that they had usually dysmenorrhea (53.2%), had never less blood flow (53.3%), and had sometimes backpain (50.5%) and menorrhagia (47.5%) (Table 2).

Majority of participants had mild premenstrual symptoms and other symptoms, while few participants had severe menstrual syndrome (Table 3).

Table 2. The frequency of premenstrual symptoms and menstrual syndrome among college students

	Usually	Sometimes	Never	Total (%)
	n* (%)	n* (%)	n* (%)	
Premenstrual symptoms				
Lower backpain	51 (19,5)	132 (50,6)	78 (29,9)	261 (100)
Fatigue	22 (8,4)	101 (38,7)	138 (52,9)	261 (100)
Sore breast	51 (19,5)	140 (53,7)	70 (26,8)	261 (100)
Mood swings and irritability	82 (31,4)	148 (56,7)	31 (11,9)	261 (100)
Menstrual syndrome				
Dysmenorrhea	139 (53,2)	105 (40,3)	17 (6,5)	261 (100)
Backpain	85 (32,6)	132 (50,5)	44 (16,9)	261 (100)
Menorrhagia	48 (18,4)	124 (47,5)	89 (34,1)	261 (100)
Less blood flow	17 (6,5)	105(40,2)	139 (53,3)	261 (100)
Other symptoms				
Vaginal discharge	20 (7,7)	120 (36,0)	121 (46,3)	261 (100)
Pruritus Vulvae	10 (3,8)	147 (46,3)	104 (39,8)	261 (100)

*n: number; %: percentage

Table 3. Proportions of premenstrual symptoms and menstrual syndrome according to its severity

	Severe	Moderate	Mild	Total (%)
	*n (%)	*n (%)	*n (%)	
Premenstrual symptoms				
Lower backpain	8 (4,4)	84 (45,9)	91 (49,7)	183 (100)
Fatigue	7 (5,6)	39 (31,5)	78 (62,9)	124 (100)
Sore breast	7 (3,7)	64 (33,5)	120 (62,8)	191 (100)
Mood swings and irritability	14 (6,1)	93 (40,4)	123 (53,5)	230 (100)
Menstrual syndrome				
Dysmenorrhea	51 (20,9)	119 (48,8)	74 (30,3)	224 (100)
Backpain	21 (9,7)	102 (47,0)	94 (43,3)	217 (100)
Menorrhagia	8 (4,6)	77 (44,5)	88 (50,9)	173 (100)
Less blood flow	6 (4,9)	30 (24,4)	87 (70,7)	123 (100)
Other symptoms				
Vaginal discharge	3 (2,1)	39 (27,7)	99 (70,2)	141 (100)
Pruritus Vulvae	5 (3,2)	31 (19,6)	122 (77,2)	158 (100)

*n: number; %: percentage

The proportions of premenstrual symptoms and menstrual syndrome according to physical activity, smoking behavior, and level of stress are shown in Table 4.

Participants who had premenstrual symptoms were more likely to be physically active, never smokers, and tended to have moderate level of stress. Similar proportions were shown among participants who had menstrual syndrome (Table 4). While a few participants (18.8%) looked for treatment for their premenstrual symptoms and menstrual syndrome, majority of participants (81.2%) did not seek any treatments. Among those who looked for treatment, general physicians and midwifery were more likely to be their health care providers (59.2%). Participants who did not go to health care providers were more likely to let the symptoms disappeared (64.6%). The reasons for not seeking treatment were largely because the menstrual problems did not interfere participants' daily activities (80.2%) (Table 5).

Table 4. Proportions of premenstrual symptoms and menstrual syndrome according to physical activity, smoking behavior, and level of stress

	Premenstrual symptoms	Menstrual Syndrome
	n*=245 (%)	n*=260 (%)
Physical activity		
Yes	190 (77.6)	200 (76.9)
No	55 (22.3)	60 (23.1)
Smoking status		
Yes	5 (2.0)	5 (2.0)
No	240 (98.0)	255 (98.0)
Stress		
Moderate	61 (24.9)	66 (25.4)
Mild	161 (65.7)	170 (65,4)
Normal	23 (9.4)	24 (9.2)

*n: number; %: percentage

Menstrual problems are generally perceived as minor health concerns, thus irrelevant to the public health agenda. Data on the frequency of menstrual dysfunction and treatment seeking behavior among women in developing countries are limited. The lack of data and the private nature of menstruation preserve the belief that menstrual problems do not warrant the attention of the public health community [6].

Table 5. Reasons for not seeking treatment, n=212

Reasons	n* (%)
Did not interfere daily activities	170 (80.2)
Did not have money	1 (0.5)
Reluctant to take medication	17 (8.0)
Busy	4 (1.9)
Health facility concern	1 (0.5)
Feel shy	4 (1.9)
Feel afraid	15 (7.1)

*n: number; %: percentage

Premenstrual symptoms and dysmenorrhoea are common gynaecologic disorders among female adolescents [9, 14]. This study identified that more than 50% participants had premenstrual symptoms or menstrual syndrome. The severity of dysmenorrhea varied greatly. The differences in severity's level reported may be explained by the effect of culture on perception in pain sensitivity [14]. Focusing on the characteristics of the menstrual cycle, majority of participants (73%) had a normal length of menstrual cycle. However, variations in menstrual cycle duration have been shown in different populations, and intra- and inter-individual variations are also common. For instance, it has been reported that 2.2% of women in India experience shorter (<21 days) and 4.1% longer menstrual cycles (>35 days) [15]. In this study, 25% of the participants reported short and 3% reported long menstrual periods.

Some studies have shown the associations of physical activity with premenstrual symptoms or menstrual syndrome [16, 17], although such associations were not observed in other studies [6, 18]. In this study, participants who had premenstrual symptoms or menstrual syndromes were more likely to be physically active, indicating that physical activity was not related with participants' menstrual problems. Smoking can cause menstrual

disorders because the nicotine contained in cigarettes can cause constriction of the blood vessels, resulting in the flow of endometrial blood vessels to decline [19]. Results of a previous study showed that adolescence and young adults who smoked had 25% greater risk of premenstrual syndromes [20]. However, the effect of smoking on menstrual syndromes could not be seen in this study since participants were mostly nonsmokers (98%). Interestingly, this study observed that participants who exposed to stress were more likely to have premenstrual symptoms or menstrual syndrome. For example, out of 245 participants with premenstrual symptoms, 90.61% of them experienced stress, mild or moderate. Previous study at a university in America also showed that college students with premenstrual symptoms had greater proportions of stress (66.6%) [21]. Menstrual disorders may occur due to the deregulations of the body's response to stressful conditions. Under stress conditions, the hypothalamic-pituitary adrenal axis (hypothalamus) plays a gonadotropin-releasing hormone in the pulse. Therefore, stress can cause irregularities in the menstrual cycle and ovulatory disruption [22].

Treatment of menstrual syndrome should be directed at providing relief from the cramping pelvic pain and associated symptoms. Non-steroidal anti-inflammatory drugs and oral contraceptives are reported as providing the most effective treatment [6]. The use of oral contraceptives by unmarried female is, however, culturally unacceptable in our traditional and conservative community. In this study, only 18% of the students consulted health care provider. This is consistent with other findings that most adolescents with menstrual syndromes self-medicate with the over-the counter preparations [6, 23]. Majority of the participants in this study did not seek for health care provider because they felt menstrual problems did not interfere with their daily activities (80%) and they felt reluctant to take medication (8%).

This study used the validated questionnaire to explore menstrual problems and treatment seeking behavior among college students. However, there are several limitations of the present study; for instance, it was a cross sectional study, so it was not possible to conclude a causative relationship between psychological stress and menstrual problems. The effect of other confounding factors, such as body mass index, use of oral contraceptive pills, lack of sleep, and parents' socioeconomic status were not considered. Moreover, the analysis relied on data obtained using questionnaire, and no history was taken, or medical examination/investigations performed.

CONCLUSION

In this study, premenstrual symptoms and menstrual syndrome are highly prevalent among college students of UIN Jakarta, with highly variable in its severity. Mothers were the main source of information about reproductive health, and the most common of premenstrual symptoms reported were lower backpain, mood swings and irritability, sore breast and fatigue. Those who exposed to stress were more likely to have premenstrual symptoms or menstrual syndrome. Majority of the participants did not seek for health care provider because they felt that menstrual problems did not interfere their daily activities.

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