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Prevalence, Impact and Management Practice of Dysmenorrhea among Female Students of Hadhrumout University

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Abstract

Dysmenorrhea (pain during menstruation) is one of the most common gynecological complaints among women of childbearing age that affects daily activities and quality of life. This study aims to assess the prevalence, impact and management practice of dysmenorrhea among female students of Hadhrumout University in the period between 1st October 2017-31th March 2018. A cross-sectional study was conducted among 295 Yemeni female students at Hadhrumout University. Data was collected by interview using a structured pre tested questionnaire. The results showed that, the mean age of participants was 21.8 ± 1.73 years. The majority (88.1%) of them were single. The mean age of menarche being 13.3 ± 1.42 years and a bout (67.1%) of them had regular menstrual pattern. The prevalence of dysmenorrhea among female students was (84.7 %). The impact of dysmenorrhea appears in the majority of participants (91.2%), only (16%) consulted the doctor, and the rest took it as a normal course of events during menstruation with self- management (61.2%). The management practices of female university students to treat dysmenorrhea were mostly non-drug solutions and traditional medicine (43.6%). There is high prevalence of dysmenorrhea among the female students of Hadhrumout university and had a significant impact in their daily physical activity and academic performance. Findings suggest that adolescent girls should be educated about proper and effective management of dysmenorrhea.

Key words: Dysmenorrhea, Prevalence, Impact, Management, University Female Students, Yemen.

Introduction:

Dysmenorrhea is defined as painful menstruation. It experienced by 45-95% of woman of reproductive age [10]. It is the commonest gynecological complaint and a leading cause of recurrent school/college absenteeism among female medical students [2,4]. Dysmenorrhea may be categorized into two distinct types: primary and secondary. Primary dysmenorrhea is defined as painful menses in women with normal pelvic anatomy, usually beginning during adolescence [3]. Secondary dysmenorrhea is menstrual pain associated with underlying pathology, and its onset may be years after menarche. Primary dysmenorrhea has been proposed that the release of prostaglandins in the menstrual fluid leads to uterine contractions that give rise to the pain of dysmenorrhea [10,7]. However, it becomes more prevalent during mid and late adolescence with the establishment of ovulatory menstrual cycles [5]. The prevalence of dysmenorrhea is difficult to determine because of different definitions of the condition, the estimates varying from 45% to 95% [11]. A recent systematic review of the world literature on chronic pelvic pain reports prevalence of dysmenorrhea ranging between 17% and 80% [17]. Unfortunately, dysmenorrhea is not well studied world-wide due

to the fact that females suffering from dysmenorrhea have usually been educated that it is "normal" to experience these pains, an incorrect assumption encouraged by families and most health care providers [6,9]. It seems that cultural and social practices regarding menstruation and related pains depend on girls' education, attitude, family environment, culture, and beliefs [16]. In one study, a majority (98%) of adolescents used non pharmacologic approaches to treat dysmenorrhea, with perceived effectiveness of 40% or less [16]. In other studies from different populations, 30%-70% of girls reported at least occasionally self-medicating with over-the-counter (OTC) pain medications [1]. Only half of young girls knew that certain medications could be helpful in relieving menstrual pains [14]. And 27% of girls were unable to recognize any of 3 non steroidal anti-inflammatory drugs (NSAID) listed as possible treatments for dysmenorrhea [12]. We believe that understanding about dysmenorrhea may be limited among many young women, as they receive little health education on this subject. Moreover, lack of past encounters with chronic pain and suffering may also influence the subjective perception of pain. On the other hand, university students represent a population with better knowledge and exposure to other forms of chronic suffering, which possibly results in different pain perception and subsequent decisions on coping approaches. Therefore, this study aims to better understand the prevalence

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of dysmenorrhea, its impact and management practice among female students of Hadhramout University .

Materials and Methods:

A cross sectional descriptive study was conducted in the period between 1st October 2017- 31 March 2018, which targeted the female students of Hadhramout University in Al-Mukalla district city (The capital of Hadhramout government –Yemen). The study population were undergraduate Yemeni female students from different colleges of Hadhramout University. We randomly chose 4 colleges (College of Medicine and health sciences, College of Arts, College of Nursing and College of Girls).

The sample size (295) of female students was distributed proportionally among the chosen colleges according to the total number of female students in each selected college. Then the sample was distributed proportionally among each department in each selected college according to the total number of female students in each department. Participants were randomly

selected from each department. Data were collected by face-to-face interview using a pre-tested structured questionnaire. The questionnaire included questions about students' personal data, the characteristics of menstruation, the impact of dysmenorrhea on their usual activities and management practices followed by females to deal with their monthly problems.

Data were entered into a computer by Statistical Package for Social Sciences (SPSS v 20). Obtained data was analyzed using descriptive statistical tools.

Results:

The socio-demographic characteristics of female university students are shown in Table (1).

Of the 295 participants, about (48.5%) were in the age group of 22-25 years with a mean of 21.8 ± 1.73 years. The vast majority (88.1%) are single, about (90.8%) were living in urban areas, with a variation in where they live while studying at college: home, hostel, came with family to study, live alone or with a friend and live with relatives (77.6%), (14.6%), (4.7%), (1%) and (2%), respectively.

Table (1): Socio-demographic of female university students

Variables	Frequency	Percentage
Age (in years)		
18-21	140	47.5
22-25	143	48.5
26-29	12	4.0
Mean Age \pm SD	21.8 \pm 1.73	
Marital status		
Single	260	88.1
Married	28	9.5
Divorced	7	2.4
College		
Medicine and Health Science	85	28.8
Nursing	21	7.0
Girls	130	44.0
Arts	59	20.2
Living		
Rural	27	9.2
Urban	268	90.8
The residence		
At home	229	77.6
At hostel	43	14.6
Came with family to study	14	4.7
Live alone or with a friend	3	1.0
Live with relatives	6	2.1

Table (2) highlights the menstrual characteristics of Female university students. The mean age of menarche being 13.3 ± 1.42 years. About (67.1%)

of the participants had regular menstrual pattern cycle, and (51.2%) of them had normal cycle duration between 21-35 days, the cycle duration

was less than 21 days in (40 %) and more than 35 days in (8.8%). More than half (55.9%) of female university students within the normal

duration of flow between 3-7 days, and (75.6%) of them with average amount of blood loss.

Table (2): Menstrual characteristics of female university students

Variable	Number	Percentage %
Menarche		
9-16 years	278	94.2
>16 years	17	5.8
Mean menarche \pm SD	13.3 \pm 1.42	
Regularity		
Regular	198	67.1
Irregular	97	32.9
Frequency		
Less than 21 days	118	40.0
Between 21-35days	151	51.2
More than 35 days	26	8.8
Bleeding days		
Less than 3 days	74	25.1
Between 3-7 days	165	55.9
More than 7 days	56	19.0
Amount		
Scanty	18	6.1
Average	223	75.6
Heavy with clots	54	18.3

The majority of female students of Hadhramout University 250 students reported that they have

dysmenorrhea making the prevalence of dysmenorrhea (84.7%).

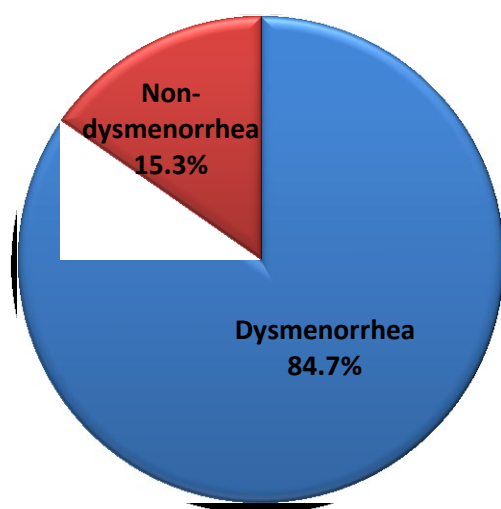


Figure (1): Prevalence of dysmenorrhea in female students of Hadhramout University

Of these 250 female dysmenorrhea students, most (44%) had dysmenorrhea on the first day of the menstrual flow, while (40.8%) had

dysmenorrhea before the onset of menstruation as shown in Table 3.

Table (3): The time of dysmenorrhea of female university students

Pain Time	Number(250)	Percentage %
1-2 days before the period	102	40.8
Few hours - 24 hours during the period	110	44.0
Before and during the period	38	15.2

The impact of dysmenorrhea appears in majority of participated students, (91.2%) have inability to study or concentrate, (90.4%) effects in daily

physical activity and the absence from college about (49.6%) as shown in Table (4).

Table (4): The impact of dysmenorrhea on participants

The impact	Yes		No	
	Number	%	Number	%
Absence from college	124	49.6	126	50.4
Sleep disturbance	183	73.2	67	26.8
Effects in psychological and social condition	215	86.0	35	14.0
Effects in daily physical activity	226	90.4	24	9.6
Inability to study or concentrate	228	91.2	22	8.8

Table (5) gives us more detailed information about the management approaches attended by female university students who have dysmenorrhea. The majority of them (43.6%) used non pharmacological and traditional

management. In the other hand the minority (9.6%) used combination of both pharmacological and non-pharmacological management, however (22.8%) didn't use anything.

Table (5): Management practices of female university students who have dysmenorrhea

Management approach	Number (250)	Percentage %
Use drugs with doctor advice	30	12.0
Use drugs without doctor advice	30	12.0
Use non pharmacological solutions and traditional medicine	109	43.6
Use pharmacological and non- pharmacological solutions	24	9.6
Don't use anything	57	22.8

Discussion:

Menstrual disorders represent an important area of unmet need for reproductive health services for women in developing countries. Dysmenorrhea is one of the most common complaints and gynecological problems among worldwide women. WHO systematic review assessed the geographical distribution of chronic pelvic pain and indicated that the rate of dysmenorrhea was 16 to 81% [17]. In our study prevalence of dysmenorrhea was found to be 84.7%. This is in coordination with a study conducted by Parveen *et al* [18], showing

frequency of dysmenorrhea of 76%. From other studies, conducted in Iran [20] and Australia [12], prevalence of dysmenorrhea is found to be 71% and 80% respectively.

The mean age of menarche in our study was found to be 13.31± 42 years, was similar to the age of menarche in the Arab population that was reported to be around 13 years [2,15]. In the study by Jarrah *et al* [13], it has been revealed that the mean age of menarche was 13.5 years for urban girls and 13.67 years for rural girls. Our study found that (67.1%) of the participants had a regular menstrual pattern cycle. Similar

patterns (69%) were reported in the study conducted by Jarrah *et al* [13].

The current study revealed that 8.8% of participants had oligomenorrhoea and 16% had menorrhagia which was similar to the results of study conducted by Fraser *et al* [7]. In our study 44% had dysmenorrhoea after starting of menstrual flow on first day of menses, while 40.8% experienced dysmenorrhoea prior to starting of menses. These findings somewhat differ from the findings of a study by Pooja *et al* [19] that reported 84% had dysmenorrhoea after starting of menstrual flow on the first day of menses, while 16% experienced dysmenorrhoea prior to starting of menses.

Despite the impacts quantified for comparison with other studies and countries being relatively few (hospitalization or absenteeism) [8,14] easily unnoticed and overlooked impacts on personal life were very common. In our study 91.2% of females with dysmenorrhea had reduced ability to concentrate and/or disturbance with study. Moreover 90.4%, 86% and 73.2% of them had changes in physical activity, reduced psychosocial well-being, and sleep disturbance respectively. As young women are in their most active years, the burden of dysmenorrhea on their lives appears particularly significant.

Our study showed 16% of participants sought formal medical advice for their dysmenorrhea, this is similar to the findings of study conducted by Pooja *et al* [19] where the rate was 16%. This is much lower than that reported by another

study conducted in Eastern India where 60% of girls had sought consultation with a doctor [15]. This is probably because many women consider pain as a normal part of menstruation and prefer avoiding medical contact as far as possible due to embarrassment. Notably, 61.2% of females with dysmenorrhea in our study self-medicated. Compared to the study by Jarrah *et al* [13] it was found that self-medication was practiced by 7.13% of adolescent girls. Although this is lower than what was found in our study, it is important to know whether our participants were aware of the indications, contra-indications, and side effects of the various drugs used.

Conclusions:

The prevalence of dysmenorrhea was high among the female students of Hadhramout university and had a significant impact on their daily physical activity and academic performance and it is related to college absenteeism.

There is a hesitation on part of seeking health care consultation. The findings of the present study suggest that adolescent girls should be educated about proper and effective management of dysmenorrhea. This will encourage better dysmenorrhea effect

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مدى انتشار وتأثير ومعالجة عسر الطمث لطالبات جامعة حضرموت بالملكا، اليمن

أسرار صالح صياد عامر سالمين بلعفير

الملخص

عسر الطمث (ألم أثناء الحيض) هو واحد من أكثر شكاوى أمراض النساء شيوعاً بين النساء في سن الإنجاب والتي تؤثر على الأنشطة اليومية ونوعية الحياة. تهدف هذه الدراسة إلى تقييم مدى انتشار عسر الطمث وتأثيره وإدارته بين طالبات جامعة حضرموت في الفترة ما بين 1 أكتوبر 2017 إلى 31 مارس 2018. أجريت دراسة مقطعية بين طالبات جامعة حضرموت وقد شملت الدراسة على 295 طالبة يمنية. تم جمع البيانات عن طريق المقابلة باستخدام استبيان منظم تم اختياره مسبقاً أظهرت الدراسة أن 250 طالبة (84,7% منهن يعانين من عسر الطمث. أظهرت النتائج أن متوسط عمر المشاركات كان 21.8 ± 1.73 سنة. واغلبيتهن عازبات (88.1%). كان متوسط عمر الحيض لديهن 13.3 ± 1.42 سنة . والأغلبية (67.1%) لديهن نمط الحيض المنتظم. كان معدل انتشار عسر الطمث بين الطالبات (84.7%). وظهر تأثير عسر الطمث في غالبية المشاركات (91.2%). فقط (16%) تشاور مع الطبيب في علاج عسر الطمث، بينما الأغلبية أخذها كمسار طبيعي للأحداث أثناء الحيض مع الإدارة الذاتية (61.2%). كانت ممارسات الطالبات الجامعيات لمعالجة عسر الطمث في الغالب عبارة عن حلول غير دوائية والطب التقليدي (43.6%). هناك ارتفاع في معدل عسر الطمث بين الطالبات في جامعة حضرموت وكان له تأثير كبير في نشاطهن البدني اليومي وأداؤهن الأكاديمي. تشير النتائج إلى ضرورة تثقيف الفتيات المراهقات حول التدبير المناسب والفعال لعسر الطمث.

الكلمات المفتاحية: عسر الطمث ، إنتشار ، تأثير ، معالجة ، الطالبات الجامعيات ، اليمن.