RESEARCH ARTICLE

Assessment of Prevalence, Management and Attitude of dysmenorrhea among University students of Sialkot, Pakistan.

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ABSTRACT

Background: Dysmenorrhea, characterized by painful menstruation, is a highly prevalent gynecological condition that substantially affects the quality of life and academic performance of young women. **Objective**: This cross-sectional descriptive study aimed to evaluate the prevalence, management strategies, and attitudes towards dysmenorrhea among female university students in Sialkot, Pakistan.

Methodology: A structured, validated questionnaire was administered to 450 participants, with 370 responses included in the final analysis. The target population included undergraduate female students aged 18-30 from Imran Idrees College of Pharmacy, Sialkot Medical College, and the University of Sialkot. **Results:** The findings revealed that 76.1% of respondents experienced dysmenorrhea, with the majority reporting moderate to severe pain. The most common symptoms accompanying dysmenorrhea included fatigue (48.9%), nausea (23.1%), and headache (20.4%), with pain primarily reported in the lower abdomen (56%). Although the majority recognized dysmenorrhea as a normal part of menstruation (58.2%), a significant portion of students (66.6%) believed there is inadequate awareness regarding its management. Management of dysmenorrhea was largely self-directed; 79.6% of respondents did not seek professional medical consultation. Common self-care practices included the use of heating pads (23.4%), rest (22.8%), OTC painkillers (17.9%), and herbal remedies (15.8%). Despite the prevalence of self-medication, only 33.4% found these methods very effective, while the majority (59.5%) rated them as moderately effective. Academic performance and social life were notably impacted by dysmenorrhea, with 59.5% of students reporting impaired academic functioning due to pain, including inability to concentrate and missed classes. However, no significant association was observed between menstrual characteristics and sociodemographic variables such as age or marital status. **Conclusion**: The study highlights the widespread nature of dysmenorrhea and the reliance on non-clinical management strategies among university students. The results emphasize the urgent need for targeted educational interventions, improved menstrual health awareness programs, and accessible medical support to enhance the well-being and productivity of affected individuals.

KEYWORDS: Dysmenorrhea, prevalence, management, menstrual pain, awareness

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1. INTRODUCTION

Menstruation is a normal physiological process that happens to women roughly once a month. While it might cause some pain and discomfort, it shouldn't interfere with or impair their ability to go about their everyday lives normally. Conversely, about 90% of women of reproductive age experience painful dysmenorrhea or menstruation [1]. Pain during menstruation is a general definition of dysmenorrhea. Back pain, diarrhea, nausea, and pelvic or lower abdominal pain are the most typical signs of dysmenorrhea. These symptoms typically begin during menstruation and go away in three days. Terms such as menstrual cramps or painful periods are also commonly used to describe these symptoms [2]. Apart from the pain in the lower abdomen or pelvis, dysmenorrhea is typically accompanied by common symptoms that fall into two primary categories: psychological and physical. Systemic, gastrointestinal, and elimination physical symptoms are the most frequently encountered [3]. Sweating, frequent urination, diarrhea, and constipation are among the elimination symptoms. Psychological symptoms, on the other hand, include mood disorders like anxiety, depression, impatience, and stress [4]. The pain starts a few hours after the menstrual period begins inside the abdomen and gets worse as the discharge gets heavier on the first day of the cycle. The intensity of the pain normally subsides after a few hours and may continue for up to 24 hours, although it seldom lasts more than 48 hours [5]. When a young girl enters puberty, hormonal, psychological, cognitive, and physical changes take place, transforming her from a child into a sexually mature woman. The cyclical shedding of the uterine lining occurs during menstruation, which is regulated by the hormones of the hypothalamus-pituitary axis [6]. Some cultures celebrate the onset of menstruation since it signifies the girl's transition into womanhood. However, it also signals a time when certain postpubescent girls will be cruelly treated because some cultures and religion views menstruation women as dirty, which results in forced seclusion, limited mobility, and social and food restrictions [7]. In the week prior to menstruation, premenstrual dysphoric disorder (PMDD) is mostly characterized by mood swings, irritability, stress, and changes in eating and sleep patterns. Relationships and social interactions can be severely hampered by PMDD [5].Dysmenorrhea is classified as either primary or secondary dysmenorrhea. Primary dysmenorrhea is defined as painful menstrual cramps of uterine origin in the absence of pelvic pathology. Primary dysmenorrhea (PD) is characterized by congestive (deep, dull ache) and/or spasmodic (sharp spasms) pain, and is linked to a variety of other symptoms such as headache, backache, fatigue, moodiness, irritability, constipation, and painful urination [8]. Secondary dysmenorrhea is defined as menstrual pain resulting from anatomic or macroscopic pelvic pathology. This condition is usually brought on by congenital abnormalities of the pelvic reproductive organs or gynaecological disorders such endometriosis, adenomyosis, or fibroids [9]. These illnesses, especially endometriosis, are widespread in young people, but diagnosis is frequently postponed [10]. Primary dysmenorrhea usually occurs in adolescence shortly after menarche. Overproduction of uterine prostaglandins is the primary pathogenesis

for primary dysmenorrhea [11]. The most common medications used to relieve dysmenorrhea pain is non-steroidal anti-inflammatory drugs such as ibuprofen and diclofenac sodium. Secondary dysmenorrhea, is mostly due to an identifiable pathological condition such as endometriosis or pelvic inflammatory disease. The onset of secondary dysmenorrhea usually occurs after several years of menarche [12]. Reported risk factors for dysmenorrhea include earlier age at menarche, longer menstrual periods, heavier menstrual flow, and family history of dysmenorrhea [2].

Menstrual pain is associated with numerous causes, according to studies on its prevalence [13]. Younger age, low body mass index (BMI), smoking, early menarche, prolonged or irregular menstrual flow, pelvic infections, prior sterilization, somatization, psychological disturbance, genetic influence, and a history of sexual assault are some of the factors that affect the prevalence and severity of dysmenorrhea [14]. Additionally, premenopausal women are vulnerable to variations in hematocrit (Packed Cell Volume) due to the monthly acute blood loss associated with menstruation [15]. The percentage of blood that is made up of red blood cells (RBCs) is known as packed cell volume, or PCV [8]. The normal PCV for males is 40% to 45% while for females, it is 38% to 42% [16]. It is not anticipated that blood loss during menstruation will be severe enough to jeopardize the homeostatic condition of non-menstrual people. Nonetheless, experiencing symptoms of hematologic imbalance, particularly fatigue, headaches, and dizziness, is not unusual [17]. Relationships, careers, leisure activities, and emotional health are all adversely impacted by dysmenorrhea. Dysmenorrhea can be debilitating for college students and school-age females, resulting in missed work or school days and absenteeism, in extreme situations, hospitalization [18]. This impairs productivity and quality of life. Additionally, the prevalence and severity of dysmenorrhea have been associated with lifestyle and dietary characteristics, including location of residence, marital status, cigarette smoking, alcohol use, and coffee drinking, respectively [19]. Exercise and lifestyle changes have been shown in numerous studies to lessen these primary dysmenorrhea symptoms [20]. According to a study by McGovern et al., yoga is the most straightforward and safest method of reducing primary dysmenorrhea pain. Pilates training is thought to be more beneficial than other yoga poses. Acupressure, massage, and acupuncture are further conservative therapy that can effectively reduce the intensity of PD pain [21]. Oral contraceptive pills (OCP) are a popular treatment for dysmenorrhea in women, and they may be the best option for treating teenage dysmenorrhea. OCP blocks ovulation and the subsequent release of progesterone, which indirectly prevents or reduces dysmenorrhea [22]. Directly, they achieve this by restricting endometrial development and lowering the amount of endometrial tissue available for PG and LT synthesis [23]. Most research indicates that a significant portion of women self-medicate and do not seek advice from medical professionals in this regard [24]. For this issue, non-steroidal anti-inflammatory medicines (NSAIDs) are typically the preferred treatment. The majority of women often choose the appropriate medication to self-medicate for menstruation pain; however, this is typically not

the case with dosage [25]. Patients with chronic pain frequently self-medicate with NSAIDs since they are over-the counter (OTC). Self-medication with NSAIDs for chronic pain is increasingly regarded as a public health issue because its management is typically unsuccessful and presents health hazards, such as the development and exacerbation of gastrointestinal issues and adverse drug interactions [26]. Some studies have found that treatments like heat therapy, transcutaneous nerve stimulation, herbal medicines, and others can reduce dysmenorrhea [27].

For decades, pain research has relied on controlled pain induction in laboratory or clinical settings, allowing for precise stimulus administration and standardized assessment via self-report and physiological measures [28]. This methodology has widely applied in chronic pain conditions such as fibromyalgia and headaches. However, its ecological validity is limited, as it may not fully capture the complexity of natural occurring pain influenced by contextual factors [29]. In primary dysmenorrhea, pain sensitivity is typically assessed in referred areas such as the abdomen, lower back and thighs due to risk of directly stimulating the uterus or cervix in young females [30]. Localized hyperalgesia in these regions have been observed in pelvic pain conditions including chronic pelvic pain, endometriosis and bladder pain syndrome [31]. Before diagnosing primary dysmenorrhea as the cause of menstruation discomfort, it's critical to rule out other illnesses. A pelvic underlying condition is linked to secondary dysmenorrhea [3]. The symptoms typically appear more than two years following menarche, which is a later onset than primary dysmenorrhea. It might be linked to further gynaecological problems, like irregular uterine bleeding [32]. There are various types of pain that can last past the catamenia. As the most frequent cause, endometriosis is the most crucial differential diagnosis [33]. The presence of endometrial tissue in extrauterine regions is a characteristic of this condition, which most closely resembles the symptoms of primary dysmenorrhea [34]. A benign invasion of the myometrium by endometrial tissue is known as adenomyosis, and it is another cause of secondary dysmenorrhea [35]. Consider flow obstruction, such as in Müllerian malformations, such as imperforate hymen, transverse vaginal septum, or vaginal agenesis, when menarche is accompanied by pain [36]. In sexually active teenagers and young women, abortion and ectopic pregnancy should be the main suspicion because they can present with severe pelvic discomfort and bleeding. Abnormal vaginal discharge linked to dyspareunia or a history of sexually transmitted infections should raise suspicions of pelvic inflammatory disease [37]. The following are examples of illnesses that are not related to gynaecology: gastrointestinal (IBS, inflammatory bowel disease, persistent constipation, lactose intolerance), genitourinary (cystitis, renal lithiasis), and psychogenic (trauma, history of sexual abuse) [12]. At Umm Al Qura University in Saudia Arabia, 90.5% of female students reported experiencing Dysmenorrhea. However only 14.5% sought medical consultation, with the majority resorting to home remedies or ignoring the pain [38]. A study at Azra Naheed medical college and Allama Iqbal medical college in Pakistan reported that 92% of female medical students experienced dysmenorrhea. Among

them, 26% had severe pain enough to disrupt daily activities, yet many relied on home remedies or self-medication rather than seeking professional care [39]. Between 50% and 90% of women globally suffer from dysmenorrhea, which varies greatly between nations [40]. This is partially because of how dysmenorrhea is defined and quantified. 87.7% of Turkish university students had the condition, whereas Ethiopia had 85.4%, young Australians had 88%, Iranian university students had 89.9%, and a sample of Mexican university students had 64% [1]. The literature reports a wide range of prevalences for dysmenorrhea. With estimates for individuals aged 17–24 years ranging from 67% to 90%, a higher frequency was typically seen in young women [41]. Teenagers reported menstruation pain at a higher rate of 93%, according to a recent big Australian research of senior high school students [42]. The prevalence of dysmenorrhea in adult women varies from 15% to 75%. Although a study of teenagers and young adults aged 26 years or fewer found that 41% of the participants had limitations in their daily activities, severe pain that is severe enough to limit daily activities is far less prevalent, affecting only 7%–15% of women [43].

2. METHODOLOGY

2.1 Ethical Approval

The Ethical Review Board Imran Idrees College of Pharmacy, has approved the study, under reference number **IICP/ERB/03**. Verbal consent was obtained from all the participants.

2.2 Study Design

This study utilized cross sectional descriptive design to assess Prevalence, Management and attitude related to dysmenorrhea among female university students of Sialkot. The design was chosen for its effectiveness in capturing data from defined population at a specific point in time allowing for an in-depth understanding of burden and response of dysmenorrhea within university students.

The study aimed to explore not only occurrence of dysmenorrhea but also how students perceive and manage this condition in context of their academic and social lives. By identifying patterns in pain management such as use of over-the-counter medications, lifestyle adjustments and alternative therapies as well as prevailing attitudes towards menstrual pain. This approach supports the primary objective of the study: to determine the prevalence of dysmenorrhea among university students, to assess students' attitudes and beliefs regarding normality and the impact of dysmenorrhea, to identify the preferred method of pain management and evaluate its perceived effectiveness, and to understand the effect of dysmenorrhea on academic performance and daily routine.

2.3 Study Population

Students from Imran Idrees College of Pharmacy, University of Sialkot and Sialkot Medical College were enrolled in the study.

Inclusion criteria: All the students, enrolled in undergraduate program at the universities either in medical or non-medical subjects (Fine arts, Language, Social and Islamic studies, Social and administrative sciences and Pure sciences, and Engineering), age 18-30, gender female. Only participants willing to take part in the study were enrolled.

Exclusion criteria: All post-graduate students, male students and those not willing to participate were excluded. Male Undergraduate students were excluded to clearly differentiate the opinions of students based on unrelated knowledge and poor perception regarding dysmenorrhea.

2.4 Sample size

The required sample size for this study was calculated using **Cochran's formula** for cross-sectional surveys

Thus, final sample size selected for this study was **368** students, ensuring adequate statistical power and an acceptable margin of error for assessing the prevalence, management and attitude toward dysmenorrhea among university students in Sialkot.

2.5 Data Collection

Data was collected using a previously validated and adopted structured questionnaire designed to assess menstrual history, dysmenorrhea characteristics, its impacts on daily activities, pain management practices, and attitude regarding dysmenorrhea. The questionnaire underwent content and face validation to ensure accuracy, relevance, and clarity of language. A total of **368** questionnaires were considered valid for analysis. The questionnaire was divided into six main sections:

2.6 Data Analysis

The data was analysed using **SPSS (IBM, version 27)** unless otherwise reported. Descriptive analysis was performed to estimate the percentage and frequencies. Association of dependent variables including prevalence, management, impact on life and awareness with independent variables (include demographics) were estimated using **Pearson's Chi square** with the significant value of $p < 0.05$.

3. RESULTS

3.1 Socio-demographic characteristics

A total of 368 participants were included in the study. The socio-demographic characteristics are summarized in Table 3.1. The majority of participants (n = 353, 95.9%) were aged between 18 and 24 years, while only 15 participants (4.1%) were in the 24–30 age group. Regarding marital status, most participants were single (n = 354, 96.2%), with a small proportion being married (n = 13, 3.5%) or divorced (n = 1, 0.3%). In terms of academic discipline, the vast majority of respondents were from the field of medicine (n = 322, 87.5%). Other fields represented included engineering (n = 25, 6.8%), social sciences (n = 15, 4.1%), and business (n = 6, 1.6%). These findings indicate that the study sample primarily consisted of young, single individuals pursuing medical education.

Table 3.1 Frequency and percentage for socio-demographic characteristics

DEMOGRAPHIC CHARACTERISTICS	RESPONSE	FREQUENCY (N)	PERCENTAGE (%)
AGE	18-24	353	95.9
	24-30	15	4.1
MATERIAL STATUS	Single	354	96.2
	Married	13	3.5
	Divorced	1	.3
FIELD OF STUDY	Medicine	322	87.5
	Engineering	25	6.8
	Business	6	1.6
	Social sciences	15	4.1

3.2 Menstrual History

The majority of participants 217(59.0%) experienced their first menstruation between the ages of 13 and 15, while 78 (21.2%) did so at 10–12 years,66 (17.9%) after 15 years, and only 1.9% before age 10. Most had an average cycle length of 26–30 days n=152(41.3%) or 21–25 days139 (37.8%), with fewer reporting cycles shorter than 21 days (7.9%) or longer than 30 days (13.0%). The most common duration of menstrual bleeding was 5–6 days158 (42.9%), followed by 3–4 days146 (39.7%), with 11.7% experiencing more than 6 days and 5.7% having 1–2 days. A large proportion280 (76.1%) reported experiencing pain

during menstruation (dysmenorrhea), and 32.6% had a family history of dysmenorrhea, while 67.4% did not.

Further details can be found in Table 3.2.

Table 3.2 Frequency and percentage of menstrual history of university students

QUESTIONS	RESPONSE	FREQUENCY(N)	PERCENTAGE %
AT WHAT AGE DID YOU EXPERIENCE YOUR FIRST MENSTRUATION?	<10 years	7	1.9
	10-12 years	78	21.2
	13-15 years	217	59.0
	>15 years	66	17.9
AVERAGE CYCLE LENGTH (DAYS)	<21 days	29	7.9
	21-25 days	139	37.8
	26-30 days	152	41.3
	>30 days	48	13.0
AVERAGE DURATION OF BLEEDING (DAYS)	1-2 days	21	5.7
	3-4days	146	39.7
	5-6 days	158	42.9
	>6 days	43	11.7
DO YOU EXPERIENCE PAIN DURING MENSTRUATION(DYSMENORRHEA)?	Yes	280	76.1
	No	88	23.9
IS THERE A FAMILY HISTORY OF DYSMENORRHEA?	Yes	120	32.6
	No	248	67.4

3.3 Management of Dysmenorrhea

The data in table 3.5 reveals out of total individual 368, (n=75) 20.4% have consulted a healthcare professional regarding their dysmenorrhea, while (n=293) 79.6% have not. The most common methods used to manage pain include heating pads (n=86 ,23.4%), OTC pain killers (n=66,17.9%), and rest (n=84,22.8%). The effectiveness of these methods varies with 33.4% (n=123) finding it very effective, moderately effective(n=219) 59.5% and 1.7% not effective.

Table 3.4 Frequency and percentage of management of dysmenorrhea

QUESTIONS	RESPONSE	FREQUENCY(N)	PERCENTAGE (%)
HAVE YOU EVER CONSULTED A HEALTHCARE PROFESSIONAL REGARDING DYSMENORRHEA?	Yes	75	20.4
	No	293	79.6
WHAT METHODS YOU USE TO MANAGE THE PAIN?	OTC pain killer	66	17.9
	Herbal remedies	58	15.8
	Heating Pads	86	23.4
	Dietary changes	24	6.5
	Sleep	39	10.6
	Exercise	5	1.4
	Rest	84	22.8
	Other	6	1.6
ARE THE METHODS YOU USE EFFECTIVE IN RELIEVING PAIN?	Very effective	123	33.4
	Moderately effective	219	59.5
	Not effective	6	1.7

3.4 Perception and Awareness

This section of the study focused on students' perceptions and awareness regarding dysmenorrhea. When asked whether they believed dysmenorrhea is a normal part of menstruation, 58.2% (n=214) responded yes, while 41.8% (n=154) disagreed. The difference was not statistically significant ($p = 0.224$), indicating varying beliefs among participants.

Regarding awareness, a significant majority 66.6% (n=245) of respondents felt that there is insufficient awareness about the management of dysmenorrhea among students, while only 33.4% (n=123) believed awareness was adequate.

Table 3.4 Frequency and percentage of perception and awareness of dysmenorrhea among university students

QUESTIONS	RESPONSE	FREQUENCY (N)	PERCENTAGE (%)
DO YOU BELIEVE DYSMENORRHEA IS A NORMAL PART OF MENSTRUATION?	Yes	214	58.2
	No	154	41.8
DO YOU THINK THERE IS ENOUGH AWARENESS ABOUT DYSMENORRHEA MANAGEMENT AMONG STUDENTS?	Yes	123	33.4
	No	245	66.6

3.5. Association of dysmenorrhea characteristics of university students with age

Table 3.7.1 summarizes the characteristics of dysmenorrhea among university students. While the severity of menstrual pain, duration of pain, and accompanying symptoms (such as nausea and headache) did not show statistically significant associations **(P > 0.05)**, the location of pain was found to be significantly associated (P = 0.014). Most participants reported moderate pain (41.6%) and commonly experienced it in the lower abdomen (56%).

Table 3.5. Association of dysmenorrhea characteristics with age

QUESTIONS	RESPONSE	FREQUENCY(N)	PERCENTAGE (%)	P VALUE
HOW WOULD YOU RATE THE SEVERITY OF YOUR MENSTRUAL PAIN?	Mild	89	24.2	
	Moderate	153	41.6	0.457
	Severe	126	34.3	
WHERE DO YOU TYPICALLY FEEL THE PAIN?	Lower abdomen	206	56.0	
	Lower back	224	31.0	**0.014**
	Thighs	37	10.1	
		11	3.0	

	Other			
HOW LONG DOES THE PAIN TYPICALLY LAST?	<1 day	94	25.5	
	1-2 days	217	59.0	0.873
	3-5 days	53	14.4	
	>5 days	4	1.1	
ARE OTHER SYMPTOMS ACCOMPANYING THE PAIN?	Nausea	85	23.1	
	Headache	75	20.4	0.771
	Fatigue	180	48.9	
	Diarrhea	28	7.6	

Table 3.5 Association of Dysmenorrhea characteristics of university students with marital status

QUESTIONS	RESPONSE	FREQUENCY(N)	PERCENTAGE (%)	P VALUE
HOW WOULD YOU RATE THE SEVERITY OF YOUR MENSTRUAL PAIN?	Mild	89	24.2	
	Moderate	153	41.6	0.345
	Severe	126	34.3	
WHERE DO YOU TYPICALLY FEEL THE PAIN?	Lower abdomen	206	56.0	
	Lower back	224	31.0	0.679
	Thighs	37	10.1	
	Other	11	3.0	
HOW LONG DOES THE PAIN TYPICALLY LAST?	<1 day	94	25.5	
	1-2 days	217	59.0	0.260
	3-5 days	53	14.4	
	>5 days	4	1.1	

ARE OTHER SYMPTOMS ACCOMPANYING THE PAIN?	Nausea	85	23.1	
	Headache	75	20.4	**0.048**
	Fatigue	180	48.9	
	Diarrhea	28	7.6	

3.6 Association of management of dysmenorrhea with field of study

Most respondents (79.6%) had not consulted a healthcare professional regarding dysmenorrhea. The most common self-management methods included herbal remedies (23.4%) and exercise (22.8%). The choice of pain management method showed a statistically significant association **(p = 0.013).** Despite this, only a third (33.4%) found the methods very effective, while the majority (59.5%) rated them as moderately effective. Consulting a professional was not significantly associated with pain relief (p = 0.450).

Table 3.6 Association of management of dysmenorrhea among university students with field of study

QUESTIONS		RESPONSE	FREQUENCY	PERCENTAGE (%)	P-VALUE
HAVE YOU ever CONSULTED HEALTHCARE PROFESSIONAL REGARDING DYSMENORRHEA?	ever	Yes	75	20.4	0.450
		No	293	79.6	
WHAT METHODS YOU USE TO MANAGE THE PAIN?		OTC pain killer	66	17.9	**0.013**
		Herbal remedies	58	15.8	
		Heating Pads	86	23.4	
		Dietary changes	24	6.5	
		Sleep	39	10.6	
		Exercise	5	1.4	
		Rest	84	22.8	
		Other	6	1.6	

ARE THE METHODS YOU USE EFFECTIVE IN RELIEVING PAIN?	Very effective	123	33.4	
	Moderately effective	219	59.5	0.200
	Not effective	6	1.7	

DISCUSSION

The study showed that a large number of university students in Sialkot (76.1%) experience dysmenorrhea (painful periods), which is similar to findings worldwide where rates range from 50% to 90% among women of reproductive age [1]. This matches results from studies in Saudi Arabia (90.5%) [14], Pakistan (92%) [15], and Ethiopia (85.4%) [1], proving that period pain is a common issue among female students. Even though dysmenorrhea is common, it is often not diagnosed or treated properly. About 79.6% of the students never went to a doctor for their period pain. Most relied on self-treatment like using heating pads (23.4%), resting (22.8%), or taking over-the-counter pain medicines (17.9%). This type of self-medication has been seen in other studies too [3,12], but it's concerning because drugs like NSAIDs can cause stomach problems if used too much [12]. The pain varied among students, but most felt it in the lower abdomen (56.0%), which is typical for primary dysmenorrhea [2]. Around 34.3% said their pain was severe, and nearly 60% said it affected their studies such as missing classes, not being able to focus, or being less productive. Similar effects have been seen in studies from other areas too [5]. Although many students used non-medical ways to ease their pain, only a few used proven methods like exercising (1.4%) or changing their diet (6.5%). These have been shown to help reduce symptoms. For example, yoga, Pilates, and taking omega-3 supplements can lower pain and improve quality of life [11].

Surprisingly, 66.6% of students said they think there is not enough awareness about dysmenorrhea. This lack of knowledge may explain why so many choose to treat themselves and avoid visiting doctors. Other studies in countries like Spain and Palestine have shown the same issue [1,13]. Also, 32.6% of the students reported a family history of dysmenorrhea, which agrees with earlier research showing that genetics may affect how bad period pain is [7]. While this study didn't find a strong connection between period history (like age when periods started or how long they last) and the pain, some research has found early periods and longer bleeding times may be risk factors [9]. Psychological and lifestyle factors like stress, tiredness, and sitting too much may also make dysmenorrhea worse [3]. Nearly half of the students said they felt tired during their periods, which made it harder for them to go about daily life. In summary, the study shows a need for better health education, awareness programs, and easy access to medical care in schools

and universities. It's important to correct false beliefs, encourage students to see doctors, and promote safe and effective treatments to help them deal with dysmenorrhea and live healthier lives.

CONCLUSION

This study highlights the widespread prevalence of dysmenorrhea among female university students in Sialkot, with **76.1%** reporting moderate to severe menstrual pain. The condition was found to significantly impact academic performance, concentration, and social well-being. Despite its effects, a majority of students relied on self-medication and home remedies such as heating pads, rest, and over-the-counter painkillers, with very few seeking professional medical advice. Most participants perceived these methods as only moderately effective. Additionally, the study revealed a lack of awareness and proper education regarding menstrual health management among students. These findings emphasize the need for targeted awareness programs, improved health education, and the promotion of safe, effective clinical and lifestylebased interventions to support young women in managing dysmenorrhea and improving their quality of life.

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