

## ORIGINAL ARTICLE

**Dysmenorrhea Awareness among Female Medical Students**SUMAIRA FATIMA SABIR<sup>1</sup>, JUNAID IQBAL<sup>2</sup>, NIMRA SHAHID<sup>3</sup><sup>1</sup>Senior Registrar Department of Obstetrics & Gynaecology, Lahore General Hospital, Lahore<sup>2</sup>Assistant Professor Department of Physiology, Azra Naheed Medical College, Superior University Lahore<sup>3</sup>Senior House Officer Stroke Medicine, Maelor Hospital United KingdomCorrespondence to: Sumaira Fatima Sabir, Email: [doctorsumaira01@gmail.com](mailto:doctorsumaira01@gmail.com), Cell: 0333-4070876**ABSTRACT****Background:** Dysmenorrhea is a problem of reproductive age, and effects quality of life, and is a common health concern among young females.**Objective:** To evaluate the prevalence of dysmenorrhea among female medical students and awareness of treatment options**Study Design:** Cross Sectional Study**Place of Study:** Azra Naheed Medical College and Allama Iqbal Medical College**Duration:** Two months from 01-01-2017 to 28 -02-2017**Methodology:** An open ended questionnaire was given to 300 female medical students in two medical colleges, data on prevalence, severity of symptoms, treatment taken and limitations caused by dysmenorrhea obtained and analyzed.**Results:** Total 300 students were enrolled in study. Dysmenorrhea was reported in 276 students, out of which 148 students had bearable pain, 78 students had difficulty in their daily routine activities and 50 students were not able to perform daily activities. Home remedies and medicines were used by students for pain relief. The mean age of menarche was calculated as 12-13 years.**Conclusion:** Dysmenorrhea is a very common problem, and by increasing awareness to seek medical help in young girls will help them in performing their routine activities smoothly and thus decreasing the burden of problem.**Keywords:** Dysmenorrhea, Medical students, Prevalence, NSAIDS, OCP**INTRODUCTION**

Dysmenorrhea is the main disorder of reproductive age women's and can impact the quality of life. The predominance of dysmenorrhea different in various populations, additionally changes in it types. Dysmenorrhea is characterized as a subgroup of pelvic pain which presents as painful feminine cycle<sup>1</sup>. Dysmenorrhea is categorized into two primary type as essential dysmenorrhea and secondary dysmenorrhea. In primary dysmenorrhea there's painful menstrual cycle in females with typical pelvic anatomy, mainly presents in young age. It is watched as it were in ovulatory cycles, for the most part inside 6-12 months of menarche<sup>2</sup> with no pathology or organic cause, whereas secondary amenorrhea may be a menstrual pain related with basic pathology and most of the times presents a long time after menarche. Secondary dysmenorrhea generally show around 25 years of age related with a few gynecological pathology as endometriosis and ovarian cyst. The predominance of primary dysmenorrhea ranges from 67-90% among those between 17-24 years of age<sup>3,4</sup>.

Around 10-15% of females with primary dysmenorrhea have extreme pain, which impacts their work, contribute to school absenteeism, and impacts quality of life. The correct predominance of dysmenorrhea is difficult to decide since of assortment of symptomatic criteria and subjective highlights of the side effects<sup>5</sup>. In numerous nations it is the repetitive cause of short term work and school absenteeism in young teen girls<sup>6</sup>.

Primary dysmenorrhea usually begins around the onset of menstrual cycle and may proceed for as less as 8 hours to as long as 3 days<sup>7</sup>. The side effects of dysmenorrhea begins with onset of monthly cycle and

proceeds for few days, and are characterized by pain that radiates from the lower abdomen to the inward thighs<sup>11</sup>. The etiology of primary dysmenorrhea isn't precisely known but a few components contribute to it as increase of synthesis and secretion of prostaglandins $2\alpha$ , expanded vasopressin and oxytocin which increases the discharges of prostaglandins and stimulation of the sort C pain fibers<sup>8</sup>. Several variables as younger age, low body mass record, smoking, early menarche, delayed or abnormal menstrual stream, perimenopausal physical complaint, pelvic diseases past sterilization, mental unsettling influence, hereditary impact, and a history of sexual attack impacts the predominance and seriousness of dysmenorrhea<sup>9,10</sup>.

There are a few strategies utilized for the help of pain during feminine cycle as rest (58%), drugs (52%), warming cushion (26%), tea (20%) exercise (15%) and herbs (7%)<sup>12</sup>. There is prove that both nonsteroidal anti-inflammatory drugs and oral prophylactic pills are viable<sup>13</sup>, but their failure rate can be between 20-25%<sup>14</sup>. In young people moderate to severe pain that influences the quality of life and not diminished by pharmacological treatment requires medical consideration and diagnosis of any fundamental pathology<sup>6</sup>. The objective of this study is to determine the predominance of primary dysmenorrhea and to see its affect among medical students and their awareness about different accessible treatment.

**MATERIAL AND METHODS**

**Study design:** This cross sectional study was conducted in two medical colleges of Lahore, Allama Iqbal Medical College & Azra Naheed Medical College. The study was conducted after the approval of ethical committee. Total of 300 students were enrolled in study 150 from each medical

college. Participants were given information about the purpose of study and informed consent was sought prior to data collection.

**Inclusion criteria:** Random selection of female medical students between ages 17 to 22.

**Exclusion criteria:** age other than in inclusion criteria, Abdominal or back pain due to any other cause

**Data collection:** an open ended questionnaire was given to the medical students and data was collected on socio demographic characteristics (age, living condition as living in hostel or at home ,socioeconomic class) and factors affecting menstrual cycle ( age of menarche , length of menstrual cycle and interval between two cycles) prevalence, severity of pain( as mild ,moderate and severe according to pain intensity score from 1-10) ,other symptoms, pharmacological treatment or other remedies as rest, hot beverages , heat pads, and the effect of pain on the quality of life.

**Data analyses:** The obtained data was then analyzed using the SPSS. The statistics obtained are compared with standard studies

**RESULTS**

A total of 300 students participated in study out of which 276 reported dysmenorrhea, the pain severity is then numerically scored as 1-3 mild, 4-6 moderate and 7-10 severe. The results obtained shows that prevalence of dysmenorrhea in study population was 92%, 53% had mild pain, 28% had moderate pain and 18% had severe pain during menstruation. The students who has problem performing there daily activities found to be 24%, and college absenteeism found to be only 6% associated with severe dysmenorrhea.

For the relief of pain 48% participants used home remedies as rest, heat pads, hot drinks and herbal medicines while pharmacological therapies in form of tablets were used by 52% of participants. In this study the group using the pharmacological medications 42% students used NSAIDS for pain relief and 56% were using simple antispasmodics while only 2% had been prescribed oral contraceptive pills.

The mean age of menarche was calculated as 12-13 years. The average length of cycle calculated from study was 29.5 days .While evaluating the socioeconomic status of the students it was found that 72% students belong to upper middle class, 10% belong to lower middle class and poor families, 18% students belong to rich families. Regarding their living around 42 % students living in their own homes, 5% living with their relatives, and remaining 53% living in hostel .Most of them living in good condition with good personal hygiene. There was no difference in prevalence of dysmenorrhea among different classes or different living conditions it was randomly distributed although participants living at home had more access to the medications.

Table 1: Pain during menstruation

Pain	Frequency n
Mild	156
Moderate	66
Severe	54
No pain	24

There was one case of primary dysmenorrhea that underwent surgery and diagnosed as a case of endometriosis.

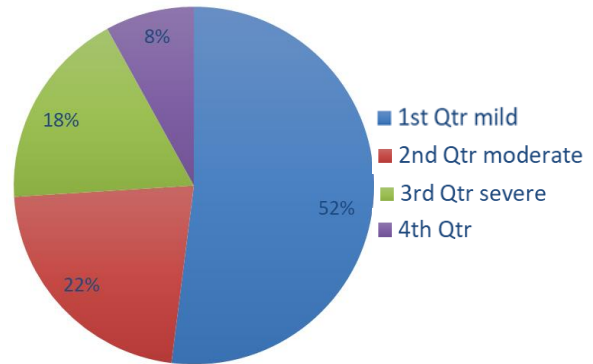


Figure 1: Pain During Menstruation

Table 2: Pain relief methods

Pain relief method	Frequency n	Types n
Home remedies	134	Rest 139
		Heat pads,hot drinks 56
		Herbal medicine121
Pharmacological therapies	156	NSAIDS 66
		Antispasmodics 87
		OCPs 3

Table 3: Menstrual cycle characteristics

characteristic	Category	frequency
Age at menarche	<12 years	47
	12-13 years	202
	>13 years	51
Length of cycle	<28 days	29
	28-32 days	225
	>32 days	44

**DISCUSSION**

The prevalence of primary dysmenorrhea is found to be 92% showing it to be a common complaint of young girls, and the findings are consistent with other studies in other parts of world<sup>15</sup>. In our study 52% of participant had mild pain and mostly relieved by simple home remedies as shown in another study which also shows that simple measures are helpful in relieving pain<sup>12</sup>. While 40% of the participants had moderate to severe pain in this group pharmacological drugs in form of NSAIDS, antispasmodics and oral contraceptive pills (OCP) are used for the pain relief. The main aim of treatment of primary dysmenorrhea is pain relief and for that if home remedies did not work NSAIDS, antispasmodics and Oral contraceptive pills are used. NSAIDS are usually first-line drugs for dysmenorrhea and should be tried for at least three menstrual periods<sup>16,17</sup>. Most commonly effective NSAIDS for pain relief are aspirin, naproxen, and ibuprofen<sup>18</sup>, they help in relieving pain and also prevent associated symptoms as nausea and diarrhea<sup>19</sup>. If NSAIDS are not helpful in relieving pain OCP can be used alone or in combination with NSAIDS and is mostly effective in relieving pain immediately<sup>20,21</sup>,OCP acts by suppressing ovulation and inhibit endometrial proliferation<sup>13</sup> antispasmodics as drotaverine 80 mg with

or without combination with NSAIDs (ibuprofen)400mg are used and combination therapies are superior for pain relief<sup>22</sup>.

There were only 6 absenteeism form college due to pain, as participants having moderate to severe pain mostly used pharmacological drugs for pain relief which shows that there was not a major effect on quality of life which is also depicted by another study<sup>25</sup>, while 24% students had difficulty in performing daily life activities which is shown by other studies as restricting daily life activities<sup>23</sup>.

## CONCLUSION

Primary dysmenorrhea is in general considered as a normal part of menstrual cycle, and hence tolerated by adolescents leading to its under reporting or not reporting at all<sup>13</sup>. So, they do not seek medical treatment for it <sup>24</sup>, which effects negatively there quality of life making contribution to poor work performance leading to anxiety and in case of chronic pain leading to depression. Although not a major problem but there daily life activities are restricted, this problem is faced by almost more than 80-90% of girls making it a major gynecological complaint of adolescents. This can be solved by taking proper history and examination and advising them most suitable medication, as a result improving their sleep, academic performance, minimizing mood changes, and improving overall quality of life.

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