ATTITUDE AND KNOWLEDGE OF MEDICAL STUDENTS OF ISRA UNIVERSITY ABOUT DYSMENORRHOEA AND ITS TREATMENT

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Background: Dysmenorrhoea is the term for painful menstruation. It is a common gynaecological complaint among female adolescent. The objective of this study was to assess attitude and knowledge about treatment of dysmenorrhoea among medical students of Isra University. **Methods:** This study was conducted at Isra University Hyderabad. Non-probability, convenient random selection from MBBS student was done. Participants included were 18–25 years of ages, irrespective of marital status. Girls with irregular menstrual cycles, primary or secondary amenorrhea were excluded from the study. Pre-designed questionnaire was filled by the students. **Results:** A total of 197 female medical students were recruited, dysmenorrhoea was reported in 76%, of these 62.43% had primary and 13.19% had secondary dysmenorrhoea. Majority 89 (59.70%) of the girls had mild G1 to moderate 48 (32.21%) G2 dysmenorrhoea and twelve 8.05% were with sever dysmenorrhoea. The most common symptoms observed were abdominal cramps 94 (63%), irritability 91 (61.07%), headache 41 (24.5%) and vomiting 34 (22.8%). Different attitudes of students were assessed, that 40.6% of subjects can not do their routine work and 19.3% remain absent from education place. Only 69.5% students were using commercial pads, 67% girls were not taking bath and 92.4% were not doing exercise during menstruation, only 15 (7.6%) were doing exercise from the study population. Simple analgesic was the most known drug to 49.7% of participants for relief of dysmenorrhoea pain. **Conclusion:** Dysmenorrhoea is a common problem among young girls, and it significantly affects their class attendance, academic performance and routine work. Even being medical students, strong cultural believes were observed regarding menstrual cycle. Attitudinal changes are necessary to develop, educational strategies, appropriate use of medications and consultation with physician, to empower these young girls regarding healthy life-style.

Keywords: dysmenorrhoea, medical students, associated symptoms, attitude, treatment

INTRODUCTION

Dysmenorrhoea is the term for painful menstruation.[1] It is a common gynaecological complaint among female adolescent.[2] The prevalence of dysmenorrhoea greatly varies between 43–90%. This variation depends on definition of dysmenorrhoea, different ethnic groups, method of data collection and study population.[3] Traditionally dysmenorrhoea is classified into two groups: primary, when menstrual cramps occur without pelvic abnormality its onset usually occurs 6–12 months after menarche when ovulatory cycles begin; and secondary dysmenorrhoea is related to some underlying pelvic pathology.[1,3,4]

The aetiology of primary dysmenorrhoea is not precisely understood but most symptoms can be explained by the action of uterine prostaglandins particularly PG $F_2\alpha$.[4,5] It may be associated with other symptoms such as nausea, vomiting, diarrhoea, back pain, fatigue, headache, dizziness and fainting. These symptoms could be very severe and severity of symptoms is usually assessed by grading of dysmenorrhoea as mild, moderate and severe according to their limitation of daily activities and work performance.[5,6]

Diagnosis of primary dysmenorrhoea depends on history and physical examination which usually is normal. In management the non-pharmacological treatment like heat application to pelvis and supplemental vitamin B_1 or magnesium, low fat diet and herbal treatment may be effective in pain relief.[6,7] The non-steroidal anti-inflammatory drugs (NSAIDs), which inhibit the synthesis of prostaglandins, are highly effective and most common pharmacological treatment used for dysmenorrhoea.[2,7,8] In girls who do not respond to NSAIDs, combined oestrogen and progesterone, depo-medroxyprogesterone acetate, and transcutaneous electrical nerve stimulation (TENS) may be considered. If they do not respond to this therapy then should be evaluated for secondary causes of dysmenorrhoea.[5,7]

In our culture, young girls are not provided with enough knowledge about treatment and consultation with a physician for dysmenorrhoea; however this condition is often considered as normal part of menstrual cycle which will settle with time or after marriage, so mostly home remedies are tried for

relief of pain. They believe that medication will make them habitual, will reduce the menstrual blood flow and also will affect their future fertility. Even they do not take bath or use sanitary pads and do not do exercise during menstruation.

The consequences of untreated dysmenorrhoea causes personal disruption, loss of work, absence from education place and also affects family, social and national economics. Therefore it needs medical and psychological attention for better achievements in life.[2] In view of this observation, current study was carried out to evaluate frequency of dysmenorrhoea, and to assess attitude and knowledge about its treatment, in medical students of Isra University, Hyderabad, Pakistan.

SUBJECTS AND METHODS

This was a descriptive cross-sectional study. It was conducted at Isra University, Hyderabad Pakistan. Subjects were selected randomly from 1st, 2nd, 3rd, 4th and final year female medical students. Subjects between 18 to 25 years of age irrespective of their marital status were included. Subjects with irregular menstrual cycles and amenorrhea were excluded. Informed consent was taken from all participants and pre-design questionnaires were given to the subjects and collected on same day from each class of MBBS. Age, marital status, year of MBBS class, menstrual history, dysmenorrhoea, primary or secondary dysmenorrhoea and its details were recorded. Questions about associated symptoms like abdominal cramps, headache, irritability, nausea, vomiting, diarrhoea and frequent micturition, attitude towards dysmenorrhoea and knowledge about treatment were asked. Severity of symptoms was assessed on multi dimensional scoring system and visual analogue scale. Multidimensional scoring system defined the severity of dysmenorrhoea as mild, moderate and severs. Visual analogue scale using a 10 Cm line represented the continuum of degree of pain; one extremity of the line at mark 10 represented 'unbearable pain' and the other extremity at zero represented 'no pain'. The participants were asked to rate the degree of pain by a mark on the line scale, value was obtained by measuring the distance from zero to that mark.

The data was analysed using SPSS version 11. Mean age of the subjects and age at menarche were calculated. The categorical data were analysed by Chi-square the continuous data were analysed using independent *t*-test and ANOVA as appropriate.

RESULTS

A total of 197 female medical students were included in the study. The dysmenorrhoea was reported in 149 (76%) of them, 123 (62.43%) had primary dysmenorrhoea and 26 (13.19%) had secondary dysmenorrhoea. The primary and secondary dysmenorrhoea was categorised by the onset of pain, whether it was since menarche or 1–2 years later was labelled as primary and if the onset was 3–5 years after menarche was labelled as secondary dysmenorrhoea.

The mean age of total subjects was 20.9±1.7 years. Mean age of girls at menarche having dysmenorrhoea was 13.2±1.1 years and that of having no dysmenorrhoea was 12.7±0.9 years. One hundred and eighty-seven (94.9%) were unmarried, out of these 144 (77%) had dysmenorrhoea and 43 (23%) had no dysmenorrhoea. Ten (5%) were married, and 5 (50%) of the married subjects had dysmenorrhoea. The differences between married and unmarried women were significant (p=0.05). (Table-1).

Menstrual pattern and other factors were found associated with menstrual cramps. Association of the mean age of menarche (13.2±1.1 years) was not found significant (p<0.07). The duration of menstruation from 1–6 days was seen in 145 (82.9%) of girls and length of menstrual cycle from 21–28 days in 134 (89.93%) which were observed statistically significant (p<0.001). There was no significant relationship seen with blood flow periods. Ratio of students with dysmenorrhoea was found more in 1st and 4th year of MBBS class but statistically no significant differences were found (Table-1).

Severity of dysmenorrhoea was graded and scored as no pain (G0), mild (G1), moderate (G2), and severe (G3). Majority (89, 59.70%) of the girls had mild to moderate 48 (32.21%) dysmenorrhoea. Twelve (8.05%) had severe dysmenorrhoea (Table-2).

The common symptoms found were abdominal cramps 94 (63.09%), irritability 91 (61.07%), headache 41 (27.5%), and vomiting in 34 (22.8%) (Table-3). Mean pain score has been shown in Table-4.

Table-5 shows attitude of students towards dysmenorrhoea. It was assessed that 117 (59.4%) girls can do their routine work and 80 (40.6%) could not. One hundred and thirty-seven (69.5%) students were using commercial pads while 60 (30.5%) were using home-made pads. It was observed that most of the girls (132, 67.0%) were not taking daily bath and 38 (19.3%) remained absent from education place during menstruation. One hundred and eighty-two (92.4%) subjects were not doing any exercise during menstruation and only 15 (7.6%) were doing exercise.

Simple analgesic tablets were used for relief of pain by 98 (49.7%) subjects. Herbal

medicines were used by 15 (7.6%) and hormonal preparations by 10 (5.1%). Seven (3.6%) had surgical treatment for severe dysmenorrhoea but they had no knowledge of exact nature of procedure performed (Table-6).

Table-1: Dysmenorrhoea according to Age, Marital Status, menstrual pattern and education

Variables	No. of cases	With dysmenorrhoea	Without dysmenorrhoea	*p* value
Marital status				
Married	10 (5.1%)	5 (50.0%)	5 (50.0%)	0.05
Unmarried	187 (94.9%)	144 (77.0%)	43 (23.0%)	
Age (group)				
Mean age		20.9±1.7	21.1±1.9	0.37
18–21	121 (61.4%)	91 (75.2%)	30 (24.8%)	0.86*
22–25	76 (38.6%)	58 (76.3%)	18 (23.7%)	
Age at menarche		13.2±1.1	12.7±0.9	0.07*
Duration:				
1–6	175 (88.83%)	145 (97.31%)	30 (62.5%)	<0.001
> 7	22 (11.16%)	4 (2.68%)	18 (37.5%)	
Interval:				
21–28	164(83.24%)	134 (89.93%)	30 (62.5%)	<0.001
29–35	33(16.755)	15 (10.06%)	18 (37.5%)	
Flow:				
Normal	172(87.30%)	127 (85.238%)	45 (93.15%)	0.12
Heavy	25(12.69%)	22 (14.76%)	3 (6.25%)	
Education (MBBS)				
1st Year	45 (22.8%)	35 (23.5%)	10 (20.8%)	0.91*
2nd Year	30 (15.2%	24 (16.1%)	6 (12.5%)	
3rd Year	25 (12.7%	19 (12.8%)	6 (12.5%)	
4th Year	79 (40.1%	57 (38.3%)	22 (45.8%)	
5th Year	18 (9.1%)	14 (9.4%)	4 (8.3%)	

*Not Significant

Table-2: Grading of dysmenorrhoea score

Grading	No. of cases	%
G0 (No dysmenorrhoea)	48	24.4
G1 (Mild)	89	45.2
G2 (Moderate)	48	24.4
G3 (Severe)	12	8.1

Table-3: Associated symptoms with dysmenorrhoea

Symptoms	Subjects with Dysmenorrhoea n=197 n (%)
Abdominal cramps	94 (63.09)
Irritability	91 (61.07)
Headache	41 (27.5)
Vomiting	34 (22.8)
Diarrhoea	14 (9.4)
Frequency of micturition	13 (8.7)

Table-4: Severity of dysmenorrhoea and mean pain score

	n (%)	Mean pain score* ±SD
Mild pain	89 (59.70%)	2.4 ± 0.61
Moderate pain	48 (32.21%)	5.0 ± 0.82
Severe pain	12 (8.05%)	8.4 ± 0.99

* One-way ANOVA (p<0.001)

Table-5: Attitude towards dysmenorrhoea

Variables	n (%)
Can do routine work	117 (59.4%)
- Yes	80 (40.6%)
- No	
Commercial pads	137 (69.5%)
Home made pads	60 (30.5%)
Taking daily bath	
- Yes	65 (33.0%)
- No	132 (67.0%)
Absent from education place	
- Yes	38 (19.3%)
- No	159 (80.7%)
Do exercise during periods	
- Yes	15 (7.6%)
- No	182 (92.4%)

Table-6: Management strategy and knowledge of treatment

Management strategy	n (%)
Knowledge about treatment:	
- Yes	100 (50.8%)
- No	97 (49.2%)
Analgesics:	
- Tablet	98 (49.7%)
- Injection	8 (4.1%)
Hormones:	
- Yes	10 (5.1%)
- No	187 (94.9%)
Herbal:	
- Yes	15 (7.6%)
- No	182 (92.4%)
Surgical:	
- Yes	7 (3.6%)
- No	190 (96.4%)

DISCUSSION

The frequency of dysmenorrhoea in our study was 76%, and the same has been reported in another study from Pakistan by Nudrat Elahi.[9] From other studies, the prevalence falls within the range of 71%[1], 80%[10] and 85%[2]. The variation in these results may be attributed to selection of subjects and absence of universally accepted method of defining dysmenorrhoea.

Pain associated with dysmenorrhoea is difficult to measure because it usually is accompanied by other unpleasant sensations so the judgment of pain should be regarded by a multi-dimensional scoring system.[3] Similarly, the grading of severity of dysmenorrhoea was done by verbal multidimensional scoring system and in another study, visual analogue scale divided pain into mild, moderate and severe.[2,3]

As far as the relationship of age with dysmenorrhoea is concerned, it is generally believed that dysmenorrhoea declines with increasing age. In the present study, most participants were of 18–21 year age, although no statistically significant differences were seen between age groups. Ten

married ladies were included in the study, 5 of them had dysmenorrhoea. Some of the studies mentioned that pain improves with increase of parity but inconsistent results were obtained in our study because all the girls were nulliparous. This could be due to small number of married subjects in our study. The associated symptoms significantly affected girls' performance of work at home and their academics. Abdominal cramps, irritability, headache and mood changes were found more frequent than other symptoms which were also prevalent in study of Hispanic adolescent.[2] Daily activities were affected in 80 (40.6%) of girls and 38 (19.3%) could not do routine work, even at their education place. The absenteeism rate from education place and academics vary as 10% reported in a study from Tehran .[1] However, Banikarim has reported higher absenteeism rate (85%) and affected daily tasks or regular activities of females with dysmenorrhoea in their study.[2] Menstrual hygiene is a vital aspect of health education in adolescent girls, in our study majority of the girls (132, 67.2%) were not taking daily bath during menstruation. One hundred and thirty-seven (69.5%) of the students were using commercial sanitary pads and remaining 60 (30.5%) using home-made pads. Similar study was conducted in Mansoura Egypt by Abdel-Hadi[11] and they also found that more women used commercial sanitary pads than home-made pads. This significant use of commercial pads could be due to availability of mass media at home, in high and middle social class and urban residency. Some studies have shown that physical activities, especially mild exercise cause's pain relief in most of the cases.[12–14] In our study, small number (15, 7.6%) of girls were doing exercise during menstruation. They were doing it as a routine and not for relief of pain; they did not know the effectiveness of physical exercise in pain relief. The level of knowledge about treatment was assessed in which 100 (50.8%) of students had knowledge about treatment and 97 (49.2%) had no knowledge about treatment compared with study in USA[2] where 73% of adolescent girls had knowledge of treatment. Most of the girls were taking simple analgesics than NSAIDs. Unfortunately lack of knowledge regarding the role of physician consultation for dysmenorrhoea has been observed in this study.

CONCLUSION

The frequency of dysmenorrhoea was quiet high in our study. It significantly affected the class attendance and routine work of our subjects. Most of them had their strong cultural beliefs of not taking bath and not doing exercise and not taking medicines during menstruation and had no trend to consult physician for their symptoms. They had poor knowledge about available treatment. Therefore attitudinal changes are necessary, to develop, educational strategies to empower these young girls regarding healthy life style and consultation with physician for effective relief of pain.

There is need of educating these young girls regarding healthy life-style and consultation with physician for effective relief of pain.

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