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DYSMENORRHOEA: PREVALENCE, IMPACT AND KNOWLEDGE ASPECT OF TREATMENT IN FEMALES OF REPRODUCTIVE AGE IN TERTIARY CARE TEACHING HOSPITAL

Parul A. Patel [*], Bharti N. Karelia and Kiran G. Piparva

Pharmacology Department, P.D.U. Govt. Medical College, Rajkot-1, Gujarat, India.

ABSTRACT: Objectives: To describe the prevalence, severity, impact and treatment aspects of dysmenorrhoea in females of reproductive age group in tertiary care teaching hospital. **Material and Methods:** This was a questionnaire based survey type study. Detail information regarding demographic profile, menstrual history and dysmenorrhoea was analysed. Severity of dysmenorrhoea was evaluated by a Menstrual Distress questionnaire (MDS). Visual analogue scale (VASP) was used to measure pain. Analysis was done by mean, SD and Chi square. **Results:** Out of 350 females, 198 (56.57%) females had dysmenorrhea. Dysmenorrhoea was observed more common in unmarried females (93.43%) and in age group of 15-19 year (48.28%). Regularity of menstrual cycle had no statistically significant association with dysmenorrhea. Most common domain of MDS score was Pain (92.93%) followed by Negative affect (71.71%), Behavioural change (61.11%) and concentration (54.54%). By VAS score, severity of pain was mild to moderate in majority of females (82.33%). Only 27.78% females had taken treatment. **Conclusion:** Dysmenorrhea is a very common problem and affects quality of life in reproductive aged females. Dysmenorrhea will require the attention and can be better managed by appropriate change in lifestyle, assurance and medicine.

INTRODUCTION: Dysmenorrhoea, or painful menses, is the most common gynecological disorder in women of reproductive age. The prevalence of primary dysmenorrhoea in the absence of organic pelvic lesions, ranges from 43% to 90% among various population. [1] It is a painful or cramping sensation in the lower abdomen often accompanied by other biologic symptoms, including fatigue, dizziness, sweating, headaches, backache, nausea, vomiting, diarrhoea, all occurring just before or during the menses.[2]

Dysmenorrhoea is primary or secondary on the basis of absence or presence of pathology. Primary dysmenorrhoea is seen only in ovulatory cycles usually developing within 6 to 12 months of menarche with no underlying pathology or organic basis. [3] Secondary dysmenorrhoea is usually due to pelvic pathology and it is not common in adolescent girls, however some adolescent girls may suffer secondary dysmenorrhoea following pelvic inflammatory disease or an abortion.[4]

Pain is a common complain of menstruating women. [5] Dysmenorrhea is not a disease but it has definite negative effects on daily activities and work of women in and out of the home and may deteriorate their living. However, it is often disregarded by many of women and consider the pain as a normal part of the menstrual cycle.

Thus, many women fail to report their pain. It is mostly neglected by not only females themselves but also by health care professionals. Data regards to natural history of dysmenorrhoea over the reproductive age are lacking. So the current study is planned to evaluate the prevalence, severity, knowledge aspect of treatment and impact of dysmenorrhea in females of reproductive age group in tertiary care teaching hospital.

MATERIAL AND METHODS: This was a questionnaire based survey type, cross sectional study. The study was started after approval from institutional ethic committee. Study included females of reproductive age, studying or working (medical and paramedical, students and staff) in a tertiary care Hospital. The questionnaire was provided to students at class hours while staff to their duty hours. Consent was taken before fill up form. The questionnaire was prepared with reference to previous literature. It includes two parts. First part of the questionnaire includes socio-demographic (age, weight, education, marital status, work profile) and medical history (obstetric and gynecological details).

The second part contain Menstrual Distress Questionnaires (MDQ) and visual analogue scale. [5] A modified menstrual distress questionnaire used to score the severity of dysmenorrhoea, was prepared by choosing 18 most relevant questions. Visual analogue scale for pain (VASP) [5] was used to measure pain during menstruation. The VASP consists of a 10 cm horizontal scale divided into 10 parts and marked 1 to 10 from 'no pain' corresponds to '0' from left extreme to 'worst possible pain' corresponds to '10'on the extreme right. Participants were asked to place a mark on the 10cm line at a point that corresponds to the level of pain intensity they usually feel during menstruation. Participants were asked to report the symptoms experienced during their most recent menstrual period. Sample size is calculated is 350 at 95% level of confidence interval with a margin of error 10%. [4] Analysis was done using descriptive statistics, percentage, mean, standard deviation and chi square Test.

RESULTS: 350 forms were filled up by under graduate, post graduate students as well faculties. Among them Prevalence of dysmenorrhea was 56.57%. 29.71% had no complain of dysmenorrhea and 13.71% forms had inadequate information/ incompleted. Majority of participants were graduate 245 (70%), followed by post graduate 61 (17.43%) and paramedical students 44 (12.57%). The most common age group was 15-19 year (48.28%) with mean age was 21.33 ± 4.92 years. Majority (93.43%) participants were unmarried and among the married women (6.75%), only 3.71% had dysmenorrhea. Association of family history was positive in only 24 (12.12%) females.

Majority females had age of menarche was 13-15 years and Dysmenorrhea (43.14%) was also more common in same group **Table 1.**

TABLE 1: AGE OF ATTAINING MENARCHE AND DYSMENORRHEA

Age at menarche(year)	Total No of cases (%)	Dysmenorrhea present (%)
<10	1 (0.29)	1 (0.29)
10-12	59 (16.86)	33 (9.43)
13-15	268 (76.57)	151 (43.14)
>15	15 (4.28)	10 (2.86)
Not attended	7 (2)	3 (1.51)
Total	n =350	n =198

Out of 266(76%) females with regular menstrual cycle, 143 (40.86%) had dysmenorrhea. While 71(20.29%) having irregular menstrual cycle and among them 47(13.42%) were suffering from dysmenorrhea, so regularity of menstrual cycle had no statistically significant association with dysmenorrhea. (Chi square test, p-0.060) Regarding duration of Menstrual cycle majority of females 205 (58.58%) had intermediate duration (20-30 days) followed by long 80 (22.86%), and short 22 (6.28%) (**Table 2**).

Majority of females 145 (73.23%) had complained of dysmenorrhea on the 1st day of period and duration of persistent of dysmenorhea ranged from 12 hrs to 24 hrs in 73 (36.87%) females.

TABLE 2: RELATION OF MENSTRUAL CYCLE (REGULARITY AND DURATION) WITH DYSMENORRHEA

Type of menstrual cycle	Dysmenorrhea (%)	No. Dysmenorrhea (%)	Total No. of cases (%)
Regular	143 (40.86)	123 (35.14)	266 (76.00)
Irregular	47 (13.42)	24 (6.86)	71 (20.29)
Not answered	8 (2.29)	5 (1.43)	13 (3.71)
Total	n =198	n =152	n= 350
Duration of Menstrual cycle			
Short (<20days)	13 (3.71)	9 (2.57)	22 (6.28)
Intermediate (20-30days)	120 (34.29)	85 (24.29)	205 (58.58)
Long (>31 days)	45 (12.86)	35 (10)	80 (22.86)
Not answered	20 (5.71)	23 (6.57)	43 (12.29)
Total	n =198	n=152	n=350

Most common domain of MDS score was pain (92.93%) followed by negative affect (71.71%), behaviroural change (61.11%) and concentration (54.54%) (**Table 3**). In pain domain, muscular cramps (26.77%) and backache (22.73%) were most common presentation. Irritability (20.20%) was most common symptom from the negative affect domain. Dysmenorrhea affected day to day activity. Sickness absenteeism was also reported. Altered behavioral changes were reflected in the form of lowered school or work performance (21.72%), taking napes & stay in bed (18.18%). Difficulty in concentration was reported in 24.24% females (**Table 4**).

TABLE 3: MOST COMMON DOMAINS OF MDS IN DYSMENORRIC STUDY POPULATION (N=198)

Domain	Prevalence (%)
Pain	184 (92.93)
Negative affect	142 (71.71)
Behavioural change	121 (61.11)
Concentration	108 (54.54)
Autonomic reaction	66 (33.33)
Water retention	60 (30.30)
Arousal	24 (12.12)
Control	24 (12.12)
Total	n =198

TABLE 4: DYSMENORRHOEA SYMPTOMS BY MDS QUESTIONNAIRE IN STUDY POPULATION (N=198)

Symptom	Prevalence (%)
Cramps	53 (26.77)
Difficulty in concentration	48 (24.24)
Backache	45 (22.73)
Lowered school or work performance	43 (21.72)
Irritability	40 (20.20)
Take naps, stay in bed	36 (18.18)
Dizziness, faintness	30 (15.15)
Restlessness	28 (14.14)
Skin disorders	24 (12.12)
Total	n =198

Majority cases (69.70%) had mild pain followed by moderate pain (12.63%) by VASP (**Table 5**) Majority of the females 128 (64.64%) had not taken any treatment, only 55 (27.78%) females had taken treatment. Among the treatment most common drug group was NSAIDs followed by antispasmodic and in NASIDs group the most commonly used drug was Tablet Mefenemic acid.

TABLE 5: SEVERITY OF DYSMENORRHOEA BY VASP*

VASP Score	Severity	No of cases (%)
1-4	Mild	138 (69.70)
5-7	Moderate	25 (12.63)
8-10	Severe	16 (8.08)

VASP Score: mean =4.73; SD =2.14

*19cases not attended VASP (Visual Analogue scale for Pain)

DISCUSSION: Dysmenorrhoea is one of the most common problem affecting majority of the females of reproductive age group. It substantially compromises the overall quality of life of the sufferer almost like a chronic illness. Added to the constant embarrassment and disruption of routine life, the girls in Indian society suffer more when their culture and belief keep them away from medical consultation.[5]

The findings of the present study estimated an overall prevalence of dysmenorrhea was 56.57% among the females of reproductive age. Similar findings were reported by Chaudhari A and Singh A (59.82%) study conducted in Chandigarh.[5] Comparatively higher prevalence had been reported by Kumbhar SK et al. (65.02%) in Andhra Pradesh.[6] However, prevalence rates reported for dysmenorrhea vary greatly from study to study population. The mean age of the study population was 21.33 ± 4.9 years which was similar to study conducted by Singh A.et al.[7] The complain of dysmenorrhea (43.14%) was high at the menarche age of 13-15year, this findings were supported by study of Mohamed Eman M. in Assiut City, Egypt.[8] Dysmenorrhea was most commonly observed in female attaining menarche in the 13-15 year of their age group.

In the current study we found that, there was no association between regularity of menstrual cycle and dysmenorrhea. Such association also not found in study of Shah M. et al.[9] Family history was positive in 24 (12.12%) cases from the dysmenorrhic females which was comparatively lower than study conducted by Kadapa and Kumbhar SK et al.(74.1%)[6] and done by Kiran B.et al (50%).[10] Majority of females(73.23%) had onset of dysmenorrhea on the 1st day of period. While duration of persistant of dysmenorrhea remain from 12 hrs to 24 hrs in majority of females (36.87%), this findings were lower than the study done by Chaudhuri A and Singh A which was (64.8%).[5]

According to the present study, most common domain of MDS score was pain (92.93%) followed by negative affect (71.71%), behavioural change (61.11%) and concentration (54.54%). Among the subjects having pain, majority had muscular cramps (26.77%) and backache (22.73%).

Irritability (20.20%) was most common symptom from the negative affect. These findings were comparatively lower in the study of the Chaudhuri A and Singh A.[5] Sickness absenteeism was also reported. Altered behavioural changes include lowered school or work performance (21.72%), taking napes & stay in bed (18.18%) were observed. Difficulty in concentration was reported in 24.24% females. Opposite to this, in the study of Chaudhuri A and Singh A. like school or work performance (64.1%), taking napes & stay in bed (50.8%) and difficulty in concentration (74.2%)[5] were comparatively lower. The records of visual analogue scale for pain scores in this study show that in majority of the cases pain was mild (69.70%) followed by moderate pain (12.63%). this findings were opposite to the study of the Chaudhuri A and Singh A, in which majority of cases pain was moderate (54.68%) followed by mild pain (28.91%).[5] This indicates that most of the females, having mild pain have a significant impact on their life.

Current study result shows that majority of the females (64.64%) had not taken any treatment; only (27.78%) females had taken treatment. among this most commonly used drug groups were NSAIDs followed by antispasmodic. Tablet Mefenemic acid was commonest drug from NSAID group. This findings were comparable with the study done by Kiran B et al. in which 57.84% students in Chennai and 60.82% in Bangalore had not taken any treatment and 42.16% and 39.18% students had taken treatment in Chennai and Bangalore respectively which was comparatively higher than the present study.[10]

Although dysmenorrhoea affects day to day activities, there is unawareness about management of dysmenorrhea among the females of reproductive age. The reason revealed from our study was that they believed that pain during menstruation is a normal while few tolerate which have negative impact to their day to day activity and quality of life. Therefore, educating young females about consulting a doctor for their menstrual period problems, will cause the more effective pain relief.[11]

CONCLUSION: Dysmenorrhea is a very common problem and affects quality of life in reproductive

aged females. Therefore, It becomes necessity to educate young females about various aspects of menstruation like taking sufficient and correct nutrition, appropriate diet, observing personal hygienic practices, doing mild physical activity, practice yoga or meditation, taking medication under a physician's supervision and consulting for any psychological problems during their menstrual period.

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