Original Article

Prevalence of dysmenorrhea and its impact on daily life activities in first and second year mbbs students.

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ABSTRACT

AIMS: 1. To evaluate the prevalence of dysmenorrhea and its associated symptoms in first and second year female medical students and 2. To evaluate the impact of dysmenorrhea on their daily life activities. Materials and methods: A cross sectional descriptive study was conducted on 200 female student- subjects studying first and second year MBBS students, aged 18-24 years. The female participants were selected based on certain inclusion-exclusion criteria. All the participants were given a semi-structured menstrual status questionnaire to fill, which had questions related to menstruation, variations in menstrual patterns, presence or absence of dysmenorrhea, its frequency, intensity of pain, associated pre menstrual symptoms, class/school absenteeism, and effect on their academic performance including physical activities. Statistical analysis: The data was analysed by chi-square test and the statistical significance of the frequency and percentage of dysmenorrhea and its symptoms were tested and P-value < 0.001 was taken as statistically significant. Results: Majority (69%) of the adolescent girls under the study group with sample size 200, experience dysmenorrhea and its associated symptoms, around 36% of them experience dysmenorrhea every month and 18% of them in most of the months, with P < 0.001 ; statistically significant. 29% of them did not have dysmenorrhea, 2% of them could not recall dysmenorrhea or any kind of abdominal pain. Conclusions: In the present study it was observed that majority of the subjects in their young reproductive age experience dysmenorrhea and other associated symptoms of menstruation in the form of generalized pain, restlessness, fatigue, or in the form of simple unexplained mood disturbances, even though all cannot be attributed as premenstrual syndrome or premenstrual dysphoric disorder. Dysmenorrhea itself has become a major cause of inability to concentrate on their work or studies, class or school absenteeism, inability to perform in their academic activities like physical training or sports, all of which are having a large impact on their daily life activities.

1. Introduction

Onset of menarche in adolescent girls marks a stage of major physiological changes, in terms of physical, endocrinal, emotional and psychological growth. Also it is a transition between childhood to adulthood. Around 15 to 20% of the Indian population comprises young adolescent girls below 20 years. The rule of nature, being continuity of species, it is brought about by the females reproductive ability. In this regard, health of adolescent girls influences not only her own health but also the health of the future generation. Soon after attaining menarche, problems associated with menstruation starts in most of the adolescent girls, in the form of irregular menstruation, menorrhagia and dysmenorrhea. Of all these dysmenorrhea is the most common, often neglected problem faced by many adolescent girls(1).

It is the same population who will be in their teens and going to schools or colleges. Studies show that around 86.6 % of females suffer from dysmenorrhea(2). Studies show that around 10 % of girls in their late teens suffer from severe spasmodic dysmenorrhea which interrupts their social and school life(3).

A dysmenorrhea incidence of about 33.5 % was reported in a study done in Calcutta(4). The burden of disease is not clearly established in India, even though there are many studies of; in rural women of south India dysmenorrhea has been estimated to...
be the greatest cause of time lost from work(5). Dysmenorrhea is a very common problem in Indian adolescent girls -87.87 %.(6). More than 50 % of all menstruating women experience some abdominal discomfort during their period(3).

A similar kind of study also states that dysmenorrhea has become an epidemiological problem(7) and also it has emerged as one of the major causes of sickness absenteeism, restricting them to participate in social, academic, sports and daily life activities(8). It causes moderate to high interference with four of nine life activities (9, 10).

Majority of these adolescent girls do not seek any medical advice for their symptoms, neglect them with their own self medications like NSAIDs, anti spasmodics or taking any of over the counter drugs, which may be any hormonal preparation including oral contraceptive pills, which may have a future complications regarding their reproductive ability (11).

So, it’s a fact that there is lack of awareness among adolescent girls about menstrual health, its associated problems and health seeking behaviour regarding the same. There is a need to educate female adolescent population about menstruation and its associated health issues. Hence an attempt was done to evaluate menstrual problems, especially dysmenorrhea, its severity and its effect on their daily life activities, in female medical students – the future generation Doctors.

**Aims:**

1. To evaluate the prevalence of dysmenorrhea and its associated symptoms in first and second year female medical students and

2. To evaluate the impact of dysmenorrhea on their daily life activities.

**2. Materials and methods:**

A cross sectional descriptive study was conducted on 200 female student- subjects studying first and second year MBBS, aged 18-24 years at Dr.B.R.Ambedkar Medical College, K.G.Halli, Bangalore. The female participants were selected based on certain inclusion-exclusion criteria.

**Inclusion criteria:**

- Age 18-24 years.
- MBBS students.
- Unmarried, nulliparous.
- Having regular menstrual cycles.

**Exclusion criteria:**

- Marriage
- Obesity.
- H/o PCOS.
- H/o chronic disease.
- H/o chronic medications, including OCPs.
- H/o irregular cycles.
- H/o smoking and alcohol consumption.

All the participants were given a semi-structured menstrual status questionnaire (12,8,1,13) to fill, which had questions related to menstruation, variations in menstrual patterns, presence or absence of dysmenorrhea, its frequency, intensity of pain, associated menstrual symptoms, class/ school absenteeism, and effect on their academic performance including physical activities. All the participants underwent for anthropometric measurements of height, weight and nutrition status. General physical examination along with mini mental status examination was done to assess their intelligence and cognition, as the study was based on questionnaire method, which requires memory and cognition.

A grading was done on the basis of % of girls under study who experience dysmenorrhea, its associated symptoms and the most common symptoms on the day before menstruation, day of menstruation and day after menstruation as self inbuilt controls.

Statistical analysis: The data was analysed by chi-square test and the statistical significance of the frequency and percentage of dysmenorrhea and its symptoms were tested and P-value <0.001 was taken as statistically significant.

**3. RESULTS:**

Table 1 gives frequencies and percentage of adolescent girls experiencing dysmenorrhea (Dysmenorrhea status).

<table>
<thead>
<tr>
<th>Adolescent girls with dysmenorrhea status</th>
<th>Frequency (N = 200)</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dysmenorrhea every month</td>
<td>72</td>
<td>36</td>
</tr>
<tr>
<td>Most of the months</td>
<td>36</td>
<td>18</td>
</tr>
<tr>
<td>Occasionally</td>
<td>08</td>
<td>04</td>
</tr>
<tr>
<td>Rarely</td>
<td>09</td>
<td>4.5</td>
</tr>
<tr>
<td>No dysmenorrhea</td>
<td>58</td>
<td>28.6</td>
</tr>
</tbody>
</table>

P< 0.001; *Total girls= 200, Dysmenorrhea Yes’ groups (N) = 142, No dysmenorrhea groups = 58
Table 2: Percentage of ten commonly occurring associated symptoms of menstruation and dysmenorrhea among adolescent girls.

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lethargy and tiredness</td>
<td>36.3</td>
</tr>
<tr>
<td>Irritability</td>
<td>33.9</td>
</tr>
<tr>
<td>Inability to concentrate on work</td>
<td>24.5</td>
</tr>
<tr>
<td>Feeling of heaviness in the lower abdomen</td>
<td>28.3</td>
</tr>
<tr>
<td>Nervousness</td>
<td>21</td>
</tr>
<tr>
<td>Depression</td>
<td>18</td>
</tr>
<tr>
<td>Anorexia</td>
<td>25</td>
</tr>
<tr>
<td>Loss of appetite</td>
<td>15</td>
</tr>
<tr>
<td>Sleeplessness</td>
<td>02</td>
</tr>
<tr>
<td>Headache</td>
<td>18</td>
</tr>
</tbody>
</table>

4. Discussion:

Majority (69%) of the adolescent girls under the study experience dysmenorrhea and its associated symptoms, around 36% of them experience dysmenorrhea every month and 18% of them in most of the months, with P < 0.001 (statistically significant). 29% of them did not have dysmenorrhea, 2% of them could not recall dysmenorrhea or any kind of abdominal pain. The significant common associated problems on all the days irrespectively (day before, day after and days of menstruation) were lethargy, tiredness, irritability depression, mood swings, inability to concentrate on studies or work, class absenteeism or school absenteeism because of the severity of the dysmenorrheic pain.

The results were consistent with some of the previous studies of; 12% of them were to miss a class, number of classes, or total absent from school for a day or more- day before, day after or days of menstruations(6,7,8,13,14,15).2-3% of the them had to miss their sports or physical activities, for 24% of the females it was a major cause for significant disruption in their school and daily life activities(9). Majority (24%) with dysmenorrhea had moderate to high interference with four out of five activities (2).

Only 2% had information or awareness regarding menstruation from health care providers or school health counselors (10). There is need to educate adolescent females regarding menstrual health (19), as majority of the girls almost always suffer the pain and discomfort of dysmenorrhea silently, due to lack of knowledge about reproductive health(1) and to the stoppage of use of over the counter drugs as well as hormonal preparations including oral contraceptive pills (20). Appropriate and early management to any of these complaints is necessary to minimize the future consequences on reproductive health and fertility (21).

5. Conclusion:

In the present study it was observed that majority of the subjects in their young reproductive age experience dysmenorrhea and other associated symptoms of menstruation in the form of generalized pain, restlessness, fatigue, or in the form of simple unexplained mood disturbances. Even though all cannot be attributed as premenstrual syndrome or premenstrual dysphoric disorder, dysmenorrhea itself has become a major cause of morbidity among adolescent girls in the form of; inability to concentrate on their work or studies, class or school absenteeism, inability to perform in their academic activities like physical training or sports, all of which are having a large impact on their daily life activities.

Summary:

Health education regarding menstruation and its associated symptoms are necessary in order to relieve the pain and pre menstrual symptoms, taboos associated with treatment of menstrual ailments and to enhance their daily life activities during menstrual periods, minimize class or school absenteeism, and to avoid the future consequences on their fertility and reproductive ability by the negligence and usage of over the counter hormonal preparations.

6. Bibliography