Survey on prevalence and impact of dysmenorrhea among a reproductive age group in adolescents girls

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Abstract
Background: Dysmenorrhea represents a significant global issue that profoundly affects the quality of life for women. It results in a high rate of absenteeism from work and educational institutions. This monthly challenge, accompanied by various associated symptoms, not only decreases women's study potential but also impairs their concentration.

Keywords: Dysmenorrhea, quality of life, associated symptoms, google form

Introduction
Dysmenorrhea is defined as a painful menstruation of sufficient magnitude to incapacitate a woman to do day to day activities. Painful menstruation before and during periods [1]. Dysmenorrhea is derived from the Greek words ‘Dys’ means difficult/painful, ‘Meno’ means month, and ‘Rrhea’ means flow [1].

- Dysmenorrhea is symptoms complex like cramp like pain in lower abdomen Pain radiating to the back, legs, Gastrointestinal, Cardiovascular, and neurological symptoms [2]. Prevalence rate of dysmenorrhea is 70.2% [3].
- 60-93% school college girls having complaint of primary dysmenorrhea [7,8].
- Dysmenorrhea is associated with obesity, anxiety, nausea vomiting, fainting, PCOS, nutritional deficiencies and sometimes pelvic pathology [5]. So, study has been done on girl’s students of three colleges.

Aim and Objectives
This study aimed to assess the major symptoms of dysmenorrhea in female students, its prevalence, and awareness among medical students aged 15-40. This also aimed to investigate the severity of the problem and its associated symptoms. Dysmenorrhea ranks among the most frequently reported gynaecological complaints and is a major cause of absenteeism in schools, colleges, and workplaces.

Purpose of selection of topic
Painful menstruation is one of the most common reported gynaec complaint and it is one of most common reason behind absentee in school, colleges, and workplace according to surveys conducted by WHO.

Materials and Methodology
A survey-based study on Dysmenorrhea was conducted among female students at Bakson HMC & Hospital (Gr. Noida, U.P), Shree Mahalakshmi Mahila HMC & Hospital (Gujarat), and Madhav HMC & Hospital, along with Madhav College of Physiotherapy (Rajasthan). A total of 432 female participants aged 15-40 were included. A cross-sectional observational study was carried out over six months. An online self-administered questionnaire was employed through Google Forms. Data was recorded and analysed using Microsoft Excel, with statistical analyses performed using frequency tables, bar charts, and pie charts. Ethical clearance was obtained from the college’s ethical committee.
Discussion

In this study, we explored the experiences of female students in various medical fields, aged 15 to 40. Our main goal was to understand how dysmenorrhea affects their lives. Dysmenorrhea is when women experience painful periods, and it can disrupt their studies and daily activities. To learn more about dysmenorrhea, we created a questionnaire. It helped us understand how much pain these students felt before, during, and after their periods. We also asked about other symptoms like back pain, leg pain, and headaches, nausea, vomiting etc. linked to dysmenorrhea. We wanted to know how they managed their pain, whether by changing positions, using certain postures, or taking medications. Additionally, we checked if they had any underlying medical conditions, like PCOS or ovarian cysts etc. Comparing our findings with previous studies, we found both similarities and differences. Our study included a wider age range, making our data more relevant to typical medical college students. This diversity in participants gave us more realistic insights into dysmenorrhea.

In the future, we plan to expand our research to include more colleges and students. This will help us gather even more accurate data and raise awareness about dysmenorrhea and how it affects students' lives.

Fig 1: Pain before Menses

Fig 2: Pain during menses

Fig 3: Pain during menses is associated with?
In the 21 to 30 age group, out of 278 students, 124 suffered from mild pain, 58 experienced moderate pain, 79 had no pain, and 17 had a history of severe pain before menses. During menses, 72 had mild pain, 134 had moderate pain, 19 had no pain, and 2 faced severe pain. Associated symptoms included generalized body pain in 20, GIT upset in 32, nausea and vomiting in 35, and no associated symptoms in 171 female students. In the 31 to 40 age group, among the 6 students, none experienced mild pain, 2 had moderate pain, 1 had no pain, and 3 had a history of severe pain before menses. During menses, 1 had mild pain, none had moderate pain, 2 had no pain, and 3 faced severe pain. Associated symptoms included generalized body pain in 0, GIT upset in 0, nausea and vomiting in 1, and no associated symptoms in 5 female students. Below graph illustrates that pain relief during menses was achieved by lying down in 58% of cases, with no relief in 20%, and through the application of a hot bag in 15% of total female participants. [Fig.-4]

**Results**

In this study, 436 female students participated, with 152 falling in the 15-20 age group, 278 in the 21-30 group, and 6 in the 31-40 groups. Findings showed that many female students in the 15-20 and 21-30 age groups experienced mild pain, whereas in the 31-40 age group, the majority experienced severe pain before menstruation. Relief methods varied, with lying down being preferred in the 15-30 age groups and painkillers in the 31-40 group. Additionally, the 31-40 age group experienced nausea and vomiting alongside dysmenorrhea. These results underscore the urgency of addressing Dysmenorrhea and its associated challenges as a top priority [6].

**Conclusion**

The study reveals that dysmenorrhea frequently affects female students in medical colleges, significantly disrupting their daily lives and academic pursuits. Many encounters pain-related issues before and during their menstrual cycles [8], typically experiencing mild to moderate pain, along with symptoms like leg and back pain. Females in age group 15-20 yrs. do experience menstrual irregularities, with mild weakness being the most reported symptom during menses. Which is common and it is generally not associated with any abnormal pathology [3, 10]. Lying down provides maximum relief. Some students experience menstrual irregularities and mild weakness during menses. These findings emphasize the importance of prioritizing the management of dysmenorrhea and related issues, allowing female students to focus on their studies and lead more comfortable lives. Further systematic replication on a larger scale is needed to gather more accurate data and address these issues effectively.

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