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CROSSECTIONAL STUDY OF PREVALENCE OF DYSMENORRHEA AND PRE MENSTRUAL SYNDROME IN COLLEGE STUDENTS

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ABSTRACT: Dysmenorrhea or pain during menstruation is the most common gynaecological complaint among adolescents and college students. A good majority of patients with dysmenorrhea also experience pre-menstrual symptoms (PMS). The objective of this cross sectional study was to assess prevalence of dysmenorrhea, PMS, college absenteeism and knowledge attitudes and practices relating to the same among college going students between the age of 18 to 26 years. **METHODS:** A cross sectional analysis of a total of 420 students using questionnaires related to dysmenorrhea was done. The questionnaire dealt with the regularity of menstrual cycles, occurrence of dysmenorrhea, college absenteeism, premenstrual symptoms and lifestyle attributes of the students. **RESULTS:** The prevalence of dysmenorrhea of varying degrees was found to be as high as 97 percent. Dysmenorrhea was seen in 45.8 percent of students with regular cycles and 97.7 percent of students with irregular cycles. 47.5 percentage of students missed their college working days due to menstruation related complaints. Among the students who had pre-menstrual syndrome, majority of them revealed life style attributes like eating fast food and also consuming over the counter pain medicines. Also psychological and emotional changes were commonly seen during the premenstrual phase. **CONCLUSION:** This study showed that though dysmenorrhea of varying degrees is widely prevalent among college going students, the prevalence of pre-menstrual syndrome was higher. The study suggests that adequate counseling and education about menstrual symptoms and abuse of OTC analgesics if made a part of college curriculum as well as lifestyle modifications could come a long way in helping to alleviate the problems college students face due to dysmenorrhea and PMS.

KEYWORDS: Dysmenorrhea, Premenstrual syndrome.

INTRODUCTION: Premenstrual syndrome (PMS) is used to describe physical, cognitive, affective and behavioural symptoms that occur cyclically during the menstrual cycle and resolve quickly at or within a few days of the onset of menstruation.¹ The American College of Obstetrics and Gynaecology (ACOG) considered if at least one of the 6 affective and one of the 4 somatic symptoms was reported five days prior to the onset of menses in the three prior menstrual cycles and ceased within four days of onset of menses.² The common symptoms are bloatedness, breast swelling, and pain, pelvic pain, head ache, skin disorders and changes in bowel habits and the psychosocial symptoms like irritability, aggressiveness, depression and anxiety.

The following were the aim and objectives of this cross sectional study using a structured questionnaire in college students between 18 -28 years were to:

1. Determine the prevalence of dysmenorrhea and PMS,
2. Determine the incidence of college absenteeism due to menstrual complaints.

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3. Assess the use of OTC Analgesics by students during menstruation.
4. Determine the lifestyle and psychological attributes of students during the premenstrual and menstrual phase.

MATERIALS AND METHODS: This study was conducted in well-known graduate college of arts, social welfare and commerce in the city of Mangalore. The study was single time descriptive cross sectional study.

A total of 420 students attending the college were analysed by personal interviews based on a structured questionnaire. The students were between the age group of 18 to 28 and had attained menarche. The questionnaire dealt with questions regarding the regularity of menstrual cycle, whether dysmenorrhea and pre-menstrual symptoms was present or not and its severity, the incidence of sickness absenteeism during menstruation, consumption of OTC pain medications during periods and psychological as well as lifestyle attributes of the students.

INCLUSION CRITERIA:

1. College going students between the age of 18 to 28 years.
2. Attained menarche.

EXCLUSION CRITERIA:

1. Students <18 and >28 years.
2. Any past gynaecological surgical history (Eg myomectomy, laparoscopy).
3. Known past history of migraine or psychiatric illness.

Percentages were calculated for drawing inferences.

RESULTS AND DISCUSSION: In our study the students predominantly were in the age group of 18 to 25 years. 24.57 percent of patients had regular menstrual cycles whereas irregular cycles were appreciated by 42.8 percent of patients. Ten percent of students reported having menorrhagia that incapacitated them from their daily routine activities. Of these students with regular cycles, 45.8 percent had dysmenorrhea. Dysmenorrhea was more prevalent among patients with irregular cycles as in about 97.7 percent.

35 percent of college students with dysmenorrhea had associated medical problems like anemia, thyroid disorders and polycystic ovarian syndrome.

In a study by Sharma P et al³ Dysmenorrhea (67.2%) was the seen to be the commonest problem among college going students and 63.1% had one or the other symptoms of Pre-menstrual syndrome (PMS).

In approximately 10% of adolescents with severe dysmenorrhea, pelvic abnormalities such as endometriosis or uterine anomalies may be found. Nonsteroidal anti-inflammatory drugs (NSAIDs) are the most common pharmacologic treatment for dysmenorrhea.⁴

In the present study when the severity of dysmenorrhea was studied, 17 percent of students did not express the need for analgesic medication for the dysmenorrhea. 75.8 percent required medications and 6.8 percent patients did not require any medication to alleviate the dysmenorrhea.

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Harel Z et al⁴ felt that patients with premenstrual symptoms that do not respond to treatment with NSAIDs for three menstrual periods should be offered combined estrogen/progestin oral contraceptive pills for three menstrual cycles. If dysmenorrhea does not respond to this treatment it should be evaluated for secondary causes.

Our Study further revealed that Sickness absenteeism was fairly common among college going students and was seen in 47.5 percent of students. Students were forced to miss college working days due to various reasons like menstrual pain, headache, nausea, vomiting and fatigue.

In a similar questionnaire based study of 706 Hispanic female adolescents, in grades 9 through 12, 85% reported dysmenorrhea and of these, 38% reported missing school due to dysmenorrhea and PMS. Menstrual pain was significantly associated with school absenteeism and decreased academic performance, sports participation, and socialization with peers.⁵

Sharma P et al³ also reported that due to dysmenorrhea the daily routine of 60% girls was affected due to prolonged bed rest, missed social activities, disturbed sleep and decreased appetite. 17.24% had to miss a class and 25% had to abstain from work according to their study. Of the vast majority of students who required medication for dysmenorrhea, 75 percent used over the counter non-prescription medication (most often mefenemic acid) and the remaining 25 percent took prescription medication like mefenemic acid and oral contraceptive pills.

Although the advances in the understanding of dysmenorrhea have been significant, it is seen many adolescent girls and college students do not seek medical advice or are undertreated.

In our study 31 percent of students also used alternative medicine like ayurvedic medication for dysmenorrhea.

When symptoms like headache, breast ache, swelling of legs and vomiting were assessed 76 percent of college going students revealed that they had one or more of these during and occasionally just before their menstrual period. Only 19 percent of students had a positive family history of dysmenorrhea. As a result of dysmenorrhea and PMS, 23.8 percent of patients complained of low confidence and decrease concentration during studies.

Emotional outbursts and mood swings were not far behind. They were seen in 19 percent of college students in relation to their menstrual period. 22 percent of students experienced fatigue, weakness and decreased physical activity during their periods. 14.2 percent of students said they had food preferences during their menstrual period. Analysis revealed that diet played a major role and was associated with dysmenorrhea and PMS in. 94.3 percent of students with PMS accepted that they consumed junk food and a diet that was far from healthy.

Health care providers have the important roles of educating students about menstruation-associated symptoms, as well as evaluating and effectively treating patients with dysmenorrhea.⁴ Exercise and any form of healthy sport and meditation were seen in only 20 percent of the total student population. The vast majority of patients with PMS did not follow any exercise form or meditation.

In a similar cross sectional study conducted in 2011 in 300 female medical students, the prevalence of dysmenorrhea was 51% and that of the pre-menstrual syndrome was 67%; Only 9.7% of the students consulted a physician or pharmacist for analgesic medication and 22.1% of students with dysmenorrhoea reported limitation of daily activities.⁶

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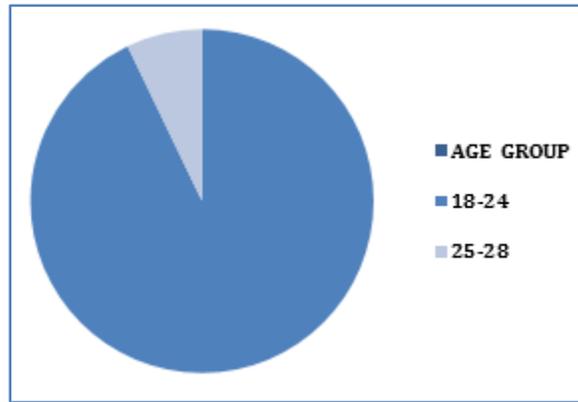


Fig. 1: Age Distribution

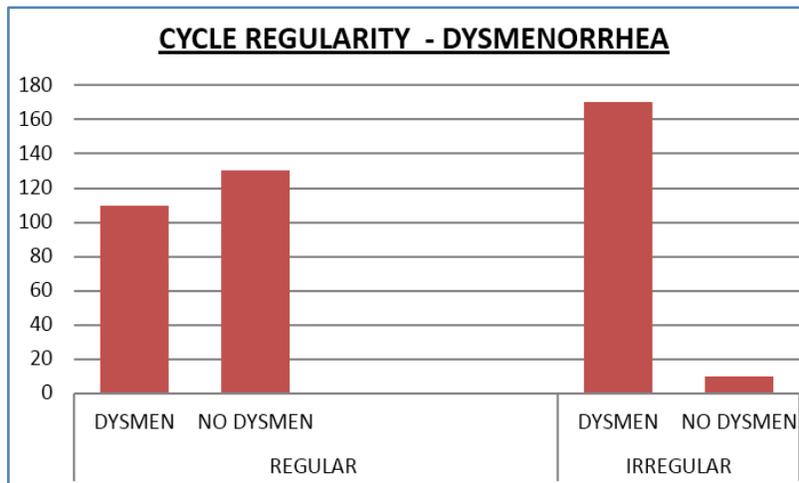


Fig. 2: Cycle regularity with dysmenorrhea bar graph

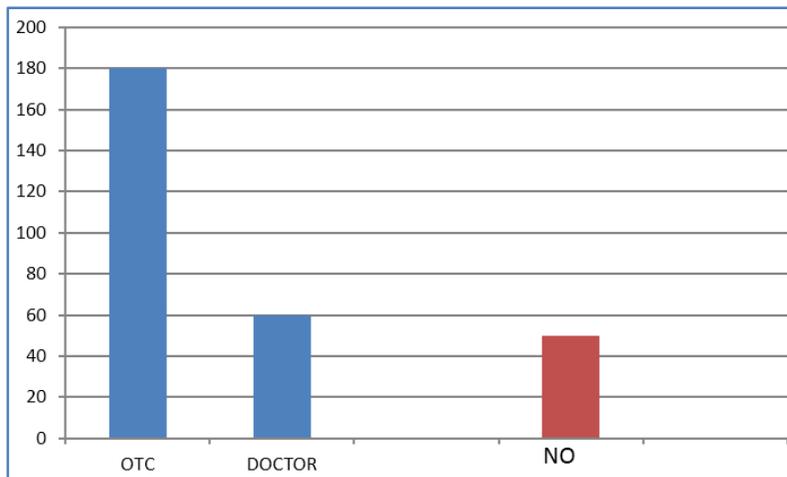


Fig. 3: Medication requirement for dysmenorrhea

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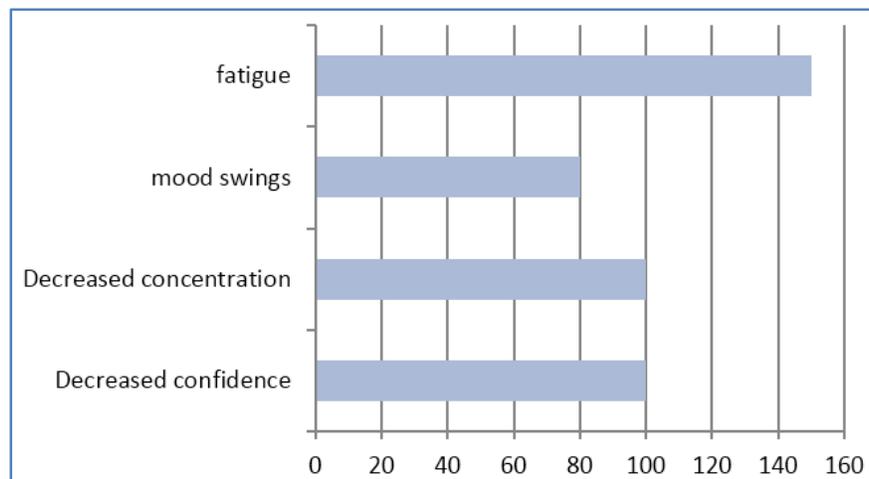


Fig. 4: Psychological manifestations of PMS

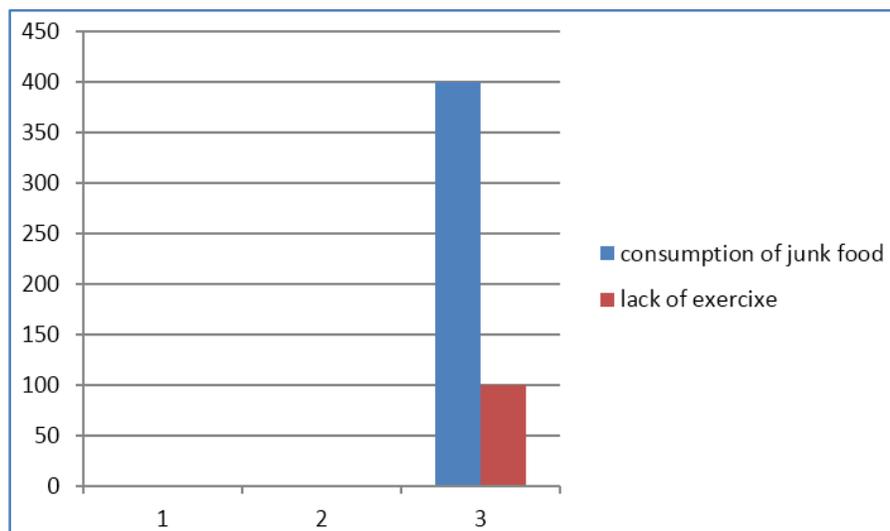


Fig. 5: Lifestyle attributes in dysmenorrhea

The introduction of a menstrual health education into school and college health programme could help in providing support to students and help in their psychological well-being. In our country, is essential to make help readily available for girls, especially for those who may feel ashamed and reluctant to report dysmenorrhoea and PMS. It is one of duties of health care providers to provide outreach and care to the youth, who are our future.

CONCLUSION: This study showed that though dysmenorrhea of varying degrees is widely prevalent (97 percent) among college going students, the prevalence of pre-menstrual syndrome was higher. The need of the hour is to establish menstrual health programmes for adolescents and college students. The study suggests that adequate screening, counseling and education

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about menstrual symptoms and abuse of OTC analgesics if made a part of college curriculum as well as lifestyle modifications could come a long way in helping to alleviate the problems college students face due to dysmenorrhea and P M S

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