

Premenstrual syndrome: A cross-sectional study of students across many Indore high schools.

Sangita Hazari, Research Scholar, Malwanchal University, Indore

Dr Reena Thakur, Research Supervisor, Malwanchal University, Indore

Introduction

Many women experience a variety of unpleasant premenstrual symptoms in the days leading up to their monthly menstrual cycle. Many women say that the minor cramps and exhaustion that are normal PMS symptoms diminish once their period starts. Your menstruation issues might range from mild to severe. Abnormal or absent menstruation might be a symptom of a more serious health problem. It's important to keep in mind that every woman's period schedule is unique. While your cycles may seem to be quite consistent, other people may have far greater fluctuations. If you have any changes in your menstrual cycle, you should see a doctor. One of the most prevalent gynecologic disorders among young women who contact doctors is dysmenorrhea, which may be loosely characterised as a difficult menstrual flow or painful menstruation. Some women suffer a cluster of physical and mental symptoms known collectively as premenstrual syndrome (PMS) during the luteal phase of their menstrual cycles (7 to 14 days prior to menstruation). It is often believed that low blood sugar, low prolactin levels, and vitamin inadequacies are to blame for premenstrual syndrome; however, none of these have been confirmed.

Primary dysmenorrhea is most common in young adults (ages 20–24), and its incidence declines with age. PMS, on the other hand, is a complex disorder that mostly affects young women. Every time a woman becomes pregnant, she increases her risk by millions. Primary dysmenorrhea and premenstrual syndrome (PMS) are both associated with severe pain. Due to the lack of an objective marker that can reliably evaluate the presence or intensity of symptoms or even the objective response to treatment, premenstrual syndrome (PMS) is notoriously difficult to diagnose. Premenstrual dysphoric disorder (PMDD) is officially diagnosed in the DSM-IV. Our research used DSM-IV criteria to diagnose women with PMS. Menstrual issues have repercussions not just for the woman experiencing them but also for her family, community, and even the economy of the country. The purpose of the research is to collect data on the prevalence of menstruation difficulties and the causes of those problems among high school graduates with college aspirations.

Methodology

A quantitative cross-sectional method was adopted for this study. Several of Indore's finest secondary institutions took part in the research. One hundred high school women from a variety of Indore schools made up the sample. Using a methodical selection process, students were chosen to participate in the research from each academic department. A self-administered, standardised, and pilot-tested questionnaire was used to compile the data. The original language of this document is English. Women's and men's obstetric and gynaecological records were kept separately from their personal and family medical files. Each person's willingness to take part was first checked over the phone, and only then was the standard, pre-tested questionnaire sent to them. Participants were given a summary of the study's aims, importance, and structure, as well as instructions on how to fill out the survey before beginning. Individuals participating in this research completed a confidential, anonymous, and self-administered survey. All participants confirmed in writing that their participation was entirely voluntary, and they all agreed orally. At any time during a question or series of questions, respondents might halt the process and return to it later. After completing data collection, the researcher briefed the participants about the physiological processes of menstruation and the various menstrual disorders. The software used for data entry and analysis was SPSS 22. One-way analyses such as frequency plots and frequency ratio plots were presented. Standard multivariate analyses, such as bivariate, were compared to the less frequent logistic regression (unconditional). A reversed version of the stepwise regression technique was used to reach this conclusion. The odds ratios (both raw and adjusted) and the 95% confidence interval (between the odds ratio and the true value) were calculated as measures of association. In this analysis, statistical significance was defined as a p-value of 0.05 or below. Extensive research was conducted to see whether it was possible to fulfil the requirements for multiple logistic regression. For this reason, research was conducted on the goodness-of-fit test developed by Hosmer and Lemeshow. In the event that a suitable match is found, the P-value from the Hosmer and Lemeshow test will be rather large.

Results

Individuals aged 13–17 took part, with the median age being 16. Seventy-eight percent of individuals who took part identified as Hindu. A whopping 95% of them didn't have any significant others. Only a third of the parents in this survey had a degree beyond high school. Menstruation begins on average at 14.2 years old, with a range of 1.81 years (13–17). Results showed that almost half of women (44%) had irregular menstrual cycles. Only 4.7% of women in this survey reported having menstrual periods of fewer than 22 days, whereas 82% reported cycles of 22–34 days. More than 83% of women report experiencing dysmenorrhea. The majority (64%) of women who reported having PMS in the previous year also reported having

symptoms between 1 and 8 days before menstruation. According to the diagnostic criteria, just 30% of these women really had PMS. Of women who reported having PMS in the previous year also reported having symptoms between 1 and 8 days before menstruation. According to the diagnostic criteria, just 30% of these women really had PMS. While 84% of women with premenstrual syndrome have dysmenorrhea, just 64% of those who responded do not. Back pain was the most common complaint (56%), but respondents also noted fullness (39%), depression (55%), and fatigue (52%). Irritability (45%), exhaustion (37%), sadness (55%), anxiety/tension (44%), and social isolation/withdrawal (45%) were described as the top five psychological and behavioural symptoms of PMS. Breast tenderness (44%), bloating (45%), acne (37%), headache (30%), and joint or muscle discomfort (19.2%) were the top five physical symptoms of PMS. Of those who answered, over half weren't really involved. Using a multivariate model, researchers were able to determine that just two of the most essential characteristics were independently associated with dysmenorrhea (at the 0.05 level of significance). After doing a multivariate analysis, we found that only five of the initially explored parameters were significantly linked to the incidence of PMS. Both the Hosmer-Lemeshow test ($P = 0.872$) and the goodness-of-fit test ($P = 0.630$) indicate that the suggested parsimonious model provides an excellent fit for the data on dysmenorrhea and PMS.

Conclusion

The likelihood of experiencing dysmenorrhea was found to be four times higher among individuals who reported a personal history of the condition compared to those who reported no such history (either personally or in their families). Premenstrual syndrome was associated with regular menstrual cycles. A student is 1.94 times more likely to have PMS if her menstrual cycle is irregular than if it is regular. Having a mother and a father who both have a bachelor's degree or higher reduces a daughter's chance of developing PMS by 56 percent by the time she reaches adulthood.

Reference

1. Nulufer E, Ayşenur K, Tulay K. Investigation of premenstrual syndrome and contributing factors among university students. Turk J Med Sci. 2010;40(4):565–573. [Google Scholar]
2. Myint T, Edessa Ore-Giron D, Sawhsarka P. Premenstrual Syndrome among Female University Students in Thailand. Assumption Univ J Technol. 2006;9(3):158–162. [Google Scholar]
3. Magfirah. Dating Violence and Premenstrual Syndrome among adolescent girl in Senior High Schools of Purworejo District. Matern Child Health-Reprod Health Study Program Public Health Science. 2011. pp. 1–6.
4. Delara, Delara M, Ghofranipour F, Azadfallah P, Tavafian SS, Kazemnejad A, Montazeri A. Health related quality of life among adolescents with premenstrual

- disorders: a cross sectional study. *Health Qual Life Outcomes*. 2012;10:1–5. [PMC free article] [PubMed] [Google Scholar]
5. Lori MD, Pamela JM, Melissa HH. Premenstrual Syndrome. *Am Fam Physician*. 2003;67:1743–1752. [PubMed] [Google Scholar]
 6. Tenkir A, Fisseha N, Ayele B. Premenstrual syndrome: Prevalence and effect on academic and social performances of students in Jimma University, Ethiopia. *J Health Dev*. 2002;17:181–188. [Google Scholar]
 7. Kathleen M, Lustyk B, Gerrish WG. Premenstrual Syndrome and Premenstrual Dysphoric Disorder: Issues of Quality Of Life, Stress and Exercise. Springer Sci Bus Media LLC (USA) 2010;115:1952–1975. [Google Scholar]
 8. Zegeye DT, Megabaw B, Mulu A. Age at menarche and the menstrual pattern of secondary school adolescents in northwest Ethiopia. *Biomed Central Women's Health*. 2009;9:29. [PMC free article][PubMed] [Google Scholar]
 9. Mahesh A, Zubair S, Tirmizi A, Ali SS. Frequency and associated factors of Premenstrual Syndrome in Medical College Girls. *Med Channel*. 2011;17(1):34–38. [Google Scholar]
 10. Pinar G, Colak M, Oksuz E. Premenstrual Syndrome in Turkish College students and its effects on Life Quality. *Sex Reprod Healthc*. 2011;2:21–27. [PubMed] [Google Scholar]
 11. mployee about Premenstrual Syndrome and Its Effect on Daily Life. *Life Sci J*. 2013;10(1):231–243. [Google Scholar]
 12. Joseph FM. Premenstrual Syndrome; Pathophysiologic Considerations. *N Engl J Med*. 1998;338(4):256. [PubMed] [Google Scholar]
 13. Schmidt PJ, Nieman LK, Danaceau MA, Adams LF, Rubinow DR. Differential behavioral effects of gonadal steroids in women with and in those without premenstrual syndrome. *N Engl J Med*. 1998;338(4):256–257. [PubMed] [Google Scholar]