COMPARING THE PREMENSTRUAL SYMPTOMS BETWEEN YOUNG FEMALES AND ADULT WOMEN

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Abstract

Introduction: Premenstrual syndrome, also known as PMS, is a collection of symptoms that begin one week before menstruation and go away once the menstrual flow starts. Premenstrual syndrome significantly lowers the quality of life for many women of reproductive age, and pharmaceutical therapies have poor efficacy and significant negative effects. All women who have PMS are advised to make lifestyle modifications, which should begin at the beginning of the diagnostic phase of prospective symptom tracking and continue throughout.

Methodology: A cross-sectional survey was carried out about the premenstrual syndrome. A total of 442 women of age group 12-30 and 30-45 were selected. Participants were drawn randomly from various colleges and universities, both private and public hospitals. Before the initiation of the survey, the participants were given a full explanation regarding the purpose of this research, and their consent to participate in the study was obtained. The survey collected the information about symptoms severity in young girls and middle age women

Result: Age was significantly associated with total, affective, or physical premenstrual symptom score. Participants between the age 30-45 were likely to have less PMS symptoms, whereas the symptoms were more severe in other age group, A significant difference in symptoms severity was observed in age groups, with the 12-30 years old age group having the highest figures.

Conclusion: Prevalence of PMS symptoms in young girls are high as compared to adults such as back pain, angry outburst. Premenstrual symptoms can be handled with appropriate pharmacological and non-pharmacological treatments if

recognized in time. As a result, it is recommended that lifestyle changes and counselling be implemented.

INTRODUCTION
1.1 PREMENSTRUAL SYNDROME

Premenstrual syndrome, also known as PMS, is a collection of symptoms that begin one week before menstruation and go away once the menstrual flow starts. The symptoms have a cyclical, repetitive, varied in quality, and intensity in nature. (Nisar, Zehra, Haider, Munir, & Sohoo, 2008)

Additionally, it is characterized by symptoms that often subside towards the end of menstruation, followed by a period of symptom-free time until ovulation.

Health practitioners must be aware of the disease and how to treat it because between 3% and 8% of women have severe PMS and as many as 40% exhibit PMS symptoms. There are now two hypotheses offered as to the cause of PMS. The ovarian hormone cycle is involved in both. the following theories

1. Because blood estrogen or progesterone levels are the same in those with or without PMS, certain women are especially sensitive to progesterone and progestogens.

2. The second hypothesis holds that serotonin, a chemical neurotransmitter known to control mood, is decreased by estrogen and progesterone. The fact that selective serotonin reuptake inhibitors (SSRIs) reduce PMS symptoms by raising serotonin levels is evidence in favor of this theory. Depression and anxiety are also linked to low serotonin levels.

3. The absence of PMS before puberty, during pregnancy, after menopause, and when taking gonadotrophin-releasing hormone (GnRH) analogues are evidence that PMS is triggered by the ovarian cycle.

The concept that PMS is caused by the ovarian cycle is supported by the fact that PMS is absent prior to puberty, during pregnancy, after the menopause, and during treatment with gonadotrophin-releasing hormone (GnRH) analogues (Gnanasambanthan & Datta, 2019)

1.2 CLASSIFICATION

Patients typically suffer symptoms for up to two weeks prior to menstruation, after which they go away. Core PMS is supported by this pattern. However, these symptoms must significantly impede everyday life, whether it be at work, school, or home, in order to distinguish between natural premenstrual symptoms and core PMS. According to statistics, premenstrual syndrome (PMS) affects 25% of women of reproductive age, significantly impairing their everyday lives, while premenstrual dysphoric disorder (PMDD), a severely debilitating type of PMS, affects 3-8% of these women.

Additionally, there are unusual presentations known as variant PMS. These fall into the following categories:

• **Premenstrual exacerbation of an underlying medical or psychological disorder**
Any symptom that one has regularly may become worse during the luteal phase of the menstrual cycle. Diabetes, epilepsy, depression, and migraines are among the illnesses

• **Premenstrual disorders associated with non-ovulatory ovarian function**
Although this is poorly understood and supported by research, it is believed that the ovary's follicular non-ovulatory function may contribute to the development of PMS symptoms.

• **Premenstrual disorders without menstruation**
Women who have undergone hysterectomy with ovarian conservation, had their endometrium's removed, or who have a levonorgestrel intrauterine device may experience this. who all still have periodic ovulatory endocrine cycles while not menstruating. Due to the absence of the reference menstrual cycle, these patients frequently go undiagnosed or receive a bipolar illness diagnosis. (Baker & O'Brien, 2012)
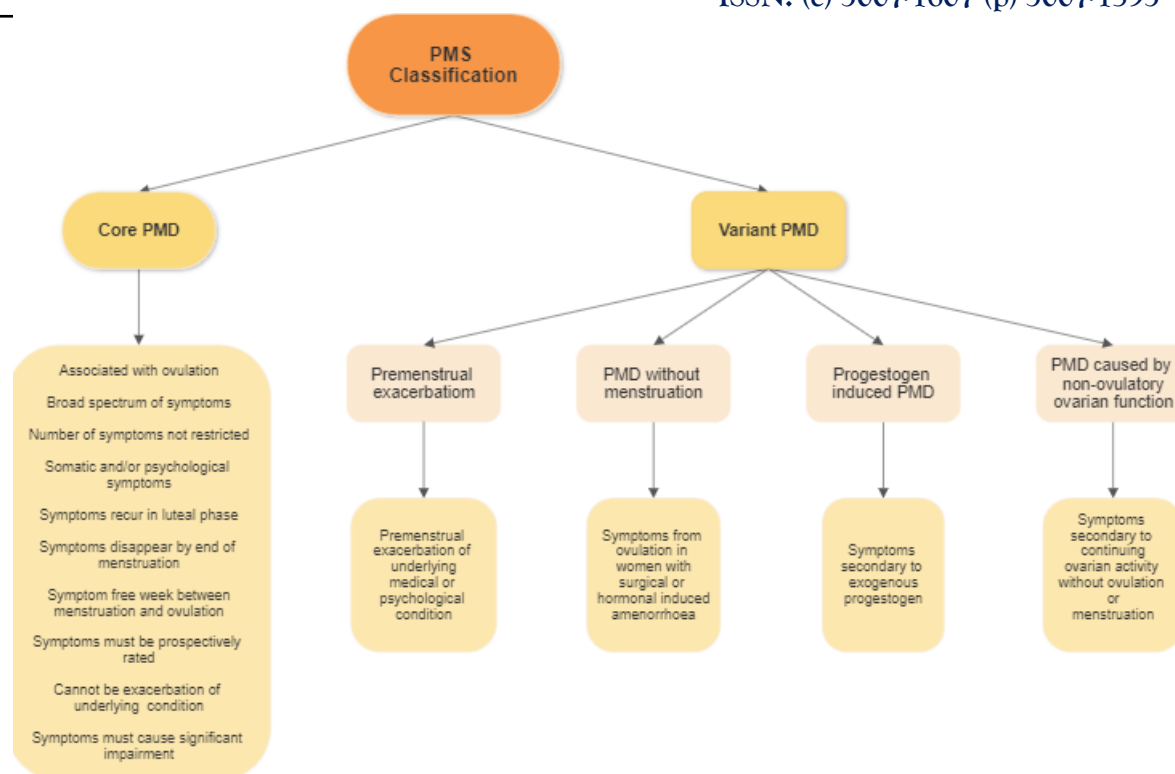
Figure 1CLASSIFICATION

• **Progestogen induced premenstrual disorders**
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1.3 PREVALENCE OF PREMENSTRUAL SYNDROME
Nearly 20% of women of reproductive age experience premenstrual syndrome (PMS), which is more common in women in their mid-20s to mid-30s. The physical and emotional symptoms experienced by affected women during the luteal phase of the menstrual cycle are severe enough to disrupt daily life and social interactions (Quintana-Zinn et al., 2017)
According to epidemiologic research, up to 80% of women of reproductive age experience some of the symptoms associated with the premenstrual stage of the menstrual cycle. Women report moderate to

severe PMS in the range of 24–32%, and Premenstrual Dysphoric Disorder (PMDD), a particularly severe type of PMS, affects 3-8% of them. The presence of at least five symptoms, one of which must be affective, that occur in the late luteal phase, are not a luteal exacerbation of an underlying psychiatric condition, and significantly obstruct social interactions or relationships with others define it as a distinct affective disorder. (Nisar et al., 2008)
During the menopausal transition, more than 50% of women have some level of physical or psychological symptoms, while the intensity of these symptoms varies greatly and the majority of women do not have severe problems. Distressing symptoms, on the other hand, can be crippling for women who encounter them, lower their quality of life, and become the main cause for seeking medical attention (Freeman, Sammel, Rinaudo, & Sheng, 2004)
While some researchers contend that PMS symptoms begin after menarche, especially in the 30s, other studies have shown that the onset of premenstrual complaints occurs primarily between adolescence and the 20s. About 80% of women report having PMS, and 5% of those who do have clinically severe

episodes have been identified. PMS is a significant public health issue that affects young women the most, occurring anywhere between 5% and 76% of the time. According to a study, 70–90% of teenage girls in the United States of America have PMS. In Turkish community research, women aged 15 to 25 were shown to have a prevalence of PMS ranging from 17.2% to 67.5%. (Sahin, Ozdemir, & Unsal, 2014)

Thus, PMS is common in women of all ages and causes significant morbidity, which is clearly detrimental to lifestyle, work performance, emotional well-being, and general health-related quality of life.(Nisar et al., 2008)

1.4 SIGNS AND SYMPTOMS OF PREMENSTRUAL SYNDROME

Premenstrual syndrome (PMS) is a collection of symptoms that are specific to the luteal phase, bother women, and are not better explained by another diagnosis..(Vichnin, Freeman, Lin, Hillman, & Bui, 2006)

There are more than 100 specific symptoms connected to PMS. Mood swings, breast discomfort, headaches, disorientation, and depression are typical examples.(Quintana-Zinn et al., 2017)

Hormonal imbalance, thyroid dysfunction, hypoglycemia, fluid retention, hereditary factors, stress, and psychological issues are known risk factors for PMS. Physical signs of PMS include bloating, breast tenderness and swelling, headaches, weight gain, nausea, and sweating, while psychological signs include restlessness, irritability, and wrath. (Sahin et al., 2014)

Premenstrual syndrome (PMS) is a severe form of premenstrual dysphoric disorder (PMDD). Depressed mood, anxiety, affective liability, persistent anger or irritability, and changes in eating or sleep are important characteristics
(Schiola, Lowin, Lindemann, Patel, & Endicott, 2011)

ICD-10's 10th revision defines premenstrual syndrome (PMS) as the occurrence of one premenstrual symptom among a range of symptoms that are limited to the luteal phase of the menstrual cycle and cease with commensal follicles, including mild psychological discomfort, breast tenderness, feelings of bloating and weight gain, swelling of the hands and feet, various aches and pains, poor

concentration, sleep disturbances, and changes in appetite.(Nisar et al., 2008)

The duration of symptom expression ranges from a few days to two weeks. Symptoms frequently get much worse 6 days before menstruation begins and peak at around 2 days before. The most serious complaints are anger and irritation, which start a little earlier than other symptoms. Although it is typical for symptoms to last into the following menstrual cycle16–18, by definition, there must be a period of time without symptoms prior to ovulation. Women typically have the same symptoms from one period to the next.(Yonkers, O'Brien, & Eriksson, 2008)

1.4.1. ANXIETY

Numerous women report premenstrual symptoms include irritability, mood swings, anxiety, and changes in eating and sleep patterns. While some women may experience premenstrual concerns, others experience mood and anxiety symptoms throughout the entire menstrual cycle. We wanted to know how many women who seek treatment for premenstrual syndrome (PMS) genuinely experience symptoms that are severe and persistent enough to fulfil official standards for mood or anxiety disorders. (Bailey & Cohen, 1999)

1.4.2. DEPRESSION

According to estimates, up to 95% of women experience premenstrual discomfort to some degree. According to the study Premenstrual stress and mood shift, women who experience significant premenstrual discomfort tend to share specific personality traits, such as neuroticism or other related personality disorders. It is hypothesized that these particular personality qualities may contribute to the premenstrual distress experienced by these women or may affect how they perceive the symptoms they feel at this stage of their cycle.(Blank, Goldstein, & Chatterjee, 1980)

1.4.3. MOOD SWINGS

Especially from a Chrono psychological perspective, its impact on mood and behavior has received very little consideration (Bancroft & Sartorius 1990). Additionally, methodological issues have led to a contradictory corpus of data about the menstrual

cycle's impact on how people interpret their moods and behave. In this study, we sought to determine whether using oral contraceptives differs from not using them in terms of how mood patterns alter in relation to the menstrual cycle.(Natale & Albertazzi, 2006)

1.4.4. ANGER OUTBURST

Developing a sense of content validity is challenging due to the nature of Premenstrual Dysphoric Disorder. Not every woman has the same symptoms; some may be predominately depressive, while others may be predominately anxious. The task of distinguishing symptoms of Premenstrual Dysphoric Disorder from those of concomitant mental disorders in women with co-occurring diseases is complicated by the fact that many premenstrual dysphoric disorder symptoms, such as sad mood, overlap with those of other psychiatric disorders.(Hartlage & Arduino, 2002)

1.4.5. ABDOMINAL CRAMPING

Within an hour or two following the commencement of bleeding, spasmodic dysmenorrhea typically develops. It appears as sharp cramping spasms in the lower abdomen, and sometimes in the back and inner thighs. A few days before the menstrual cycle begins, congestive dysmenorrhea may manifest as a dull agonizing ache in the upper and lower abdomen, along with a growing "heaviness," and sometimes constipation, nausea, and a lack of appetite. Additionally, headaches, backaches, and breast soreness could be present. Premenstrual syndrome, which is marked by symptoms of irritation, melancholy, and lethargy, is frequently linked to the discomfort of dysmenorrhea. (Bale & Davies, 1983)

1.4.6. ACNE

There has never been a research to ascertain how the various phases of the menstrual cycle affect acne in women, despite the fact that acne is a widespread condition with a hormonal base.

Although it is commonly established that hormones have an impact on acne, the precise way in which they do so is yet unknown. Numerous studies have shown that women with acne have normal amounts of androgen, and a similar number have shown that these same women also produce more androgen.6-8

Ovulation irregularities were discovered in 58%9 and 57%10 of the women surveyed in two different investigations on acne-prone women. These abnormalities were linked by both investigations to increased testosterone levels.
(Stolla et al., 2001)

1.4.7. BACK PAIN

Given that menstruation disorders affect many women globally and that the majority of nursing staff are female, their significance as an occupational health issue in nursing cannot be understated1). Another major worry for nurses is musculoskeletal disorders (MSD), notably low back pain (LBP). There are numerous physical and workplace risk factors that have been discovered in the nursing profession.
(Smith et al., 2009)

1.4.8. HEADACHE / MIGRAINE

There is a long history of clinical observation as well as epidemiological data that point to a link between migraine and the menstrual cycle. The first migraine attack is most likely to happen during adolescence, and women are more likely than males to develop migraines later in life. Additionally, there is evidence linking migraines to menopause, estrogen replacement treatment, oral contraceptives, and pregnancy. Numerous women also complain of an increase in migraines prior to, during, and after ovulation. The covariation of hormone levels with headache activity is a second topic associated with the research of menstrual migraine. Headache activity has been suggested to rise because of a drop in serum estrogen concentration10 or to an increase in serum estrogen concentration, and it has been hypothesized that migraines are connected to altering levels of progesterone and estrogen during the menstrual cycle.
(Beckham et al., 1992)

1.4.9. INSOMNIA

Insomnia and sleep disorders are common in the general population, but women are more likely to experience them, especially when their hormones are fluctuating. There are gender disparities in the management of sleep complaints in addition to gender differences in the complaint of sleep disruptions and the prevalence of insomnia.

Significant hormonal changes brought on by PMS alter the sleep-wake cycle and result in physiologic changes that impair sleep. Pregnancy itself brings about a variety of anatomical and physiological changes in addition to the hormonal changes. (Nowakowski & Meers, 2019)

1.4.10. BREAST ENLARGEMENT
Frank5 initially outlined the premenstrual condition in 1931. Breast growth, bloating, and a range of psychiatric problems make up the symptom complex. Premenstrual syndrome's actual prevalence is difficult to estimate because of disagreements and misunderstandings surrounding its exact definition and diagnostic standards.

Significant increases in body water and weight have not been noticed in premenstrual women with severe premenstrual syndrome. The work by Andersch et al. contradicts the theory that the symptoms of premenstrual syndrome may be caused by a redistribution of fluid in the body, with an increase in the flow from intravascular to extravascular compartments.(Vellacott, Shroff, Pearce, Stratford, & Akbar, 1987)

1.4.11. NAUSEA
In a recent experiment, women were randomized to take 20g Ethinyl Estradiol/100g levonorgestrol or a placebo across six cycles. There was no significant difference in weight gain or the incidence of headache, nausea, or breast pain. These studies failed to maintain a steady progestogen product and dose, despite the fact that comparisons employing active treatment arms have not shown fewer symptoms or greater compliance in women using the lower estrogen products.

PMS symptoms might include a migraine headache, pelvic pain brought on by endometriosis, premenstrual symptoms, or menstrual discomfort. The avoidance of these uncomfortable side effects may be a stronger incentive for compliance than the numerous well-known substantial health advantages, such as a lower risk of ovarian cancer.(Kwiecien, Edelman, Nichols, & Jensen, 2003)

1.4.12. CONFUSION
Because severe premenstrual syndrome (PMS) or premenstrual dysphoric disorder (PMDD) is essentially an endocrine condition brought on by hormonal changes that occur after ovulation, ovulation suppression using transdermal estradiol or gonadotrophin-releasing hormone (GnRH) analogues is usually successful. These cyclical hormonal shifts should be suppressed as the primary focus of treatment. But it has been noted that persistent "bipolar depression," as described by psychiatrists, frequently goes away when the condition's cyclical premenstrual basis is treated by suppressing ovarian cycles.. (Studd, 2012)

1.4.13. FOOD CRAVINGS
The experimental carbohydrate intervention significantly reduced self-reported feelings of despair, rage, disorientation, and appetite for carbohydrates 90–180 minutes after intake. Additionally, memory word recognition scores considerably improved over those from the placebo run-in month (P .05). On any of these metrics, the isocaloric placebo interventions had no discernible impact. (Sayegh et al., 1995)

1.5 MANAGEMENT OF PMS
All women who have PMS are advised to make lifestyle modifications, which should begin at the beginning of the diagnostic phase of prospective symptom tracking and continue throughout. For mild-to-moderate symptoms of PMS/PMDD, lifestyle changes such as dietary adjustments, exercise, cognitive behavioral treatments, and complementary and alternative medicine may be all that is required. Premenstrual reductions in caffeine, salt, and refined sugars, as well as smaller, more frequent meals, are dietary recommendations to help lessen irritability, sleeplessness, fluid retention, breast tenderness, bloating, and weight gain. Exercise has been demonstrated to dramatically boost mood and reduce tiredness and is thought to increase endorphins. Although no significant evidence conclusively proves that these changes actually decrease PMS/PMDD symptoms, such lifestyle habits can lead to improved overall health. Cognitive behavioral therapy, including relaxation and sleep hygiene, may be effective treatment for physical and emotional premenstrual symptoms and is most effective in women with severe symptoms.

Alternative treatments such as reflexology, massage therapy, biofeedback, acupuncture, and light therapy

may offer significant improvement in premenstrual symptoms such as anxiety, depression, pain, and fluid retention. Although there is no research to firmly show that these adjustments reduce PMS/PMDD symptoms, adopting such lifestyle practises can benefit general health. Premenstrual physical and emotional symptoms may be effectively treated with cognitive behavioral therapy, which includes relaxation techniques and good sleep habits. Women with severe symptoms are more likely to benefit from this type of therapy.

Premenstrual symptoms like anxiety, depression, pain, and fluid retention may be significantly improved with alternative therapies like reflexology, massage therapy, biofeedback, acupuncture, and light therapy. (Jarvis, Lynch, & Morin, 2008)

LITERATURE REVIEW
2.1: Frequency, Intensity and Impact of Premenstrual Syndrome
The purpose of the study was to ascertain the prevalence and severity of Premenstrual Syndrome (PMS) among medical college students, assess the condition's effect on quality of life, and identify risk factors. This investigation is observational. From August to December 2006, the study was carried out at the Isra University Hospital in Hyderabad, Sindh, Pakistan. By convenience sampling, unmarried medical students between the ages of 18 and 25 who have had regular periods for the previous six months were selected. On the daily record of severity of problems (DRSP) for two projected cycles, information on PMS was gathered. After obtaining participants' informed consent, information on health-related quality of life was collected on the medical outcome study Short Form 36 (Sf - 36). Two-tailed t-tests and multivariate logistic regression analysis were used for descriptive and inferential analysis. The average age of the study participants (n=172) was 21.2 + 1.9 years. Nineteen (10.1%) of the 89 females who met the requirements for PMS recording to ICD-10 (International Classification of Diseases 10th Revision) had severe PMS, while 10 (11.2%) had light PMS and 53 (59.5%) had moderate PMS. According to DSM-IV (Diagnostic and Statistical Manual of Mental Disorders Text Revision Fourth Edition) criteria, ten (5.8%) females had premenstrual dysphoric disorder (PMDD). Anger,

irritation, anxiety, fatigue, difficulty concentrating, mood swings, and physical symptoms including breast tenderness and generalised discomfort were the symptoms that appeared most frequently. These symptoms significantly impacted social life, activities, and work efficiency and production. On both a univariate and multivariate analysis, dysmenorrhea (p=0.003) and family history of premenstrual syndrome (p0.001) were found to be substantially associated with premenstrual syndrome. The impacted group had considerably lower Sf - 36 scores on the Mental Component Summary (MCS) and Physical Component Summary (PCS). This study focused on the connection between PMS and reproductive variables. In the adjusted analysis, 122 (70.9%) of the participants reported having some degree of dysmenorrhea, and the majority of these participants belonged to the PMS group. Dysmenorrhea was common among the study subjects and had a substantial and independent connection with PMS. Family history of PMS was another risk factor that was substantially linked. Similar to research from the UAE and the USA, a substantial link between PMS, dysmenorrhea, and family history of PMS was discovered. In contrast to previous research, there was no connection between PMS, age at menarche, or years experiencing premenstrual symptoms. Premenstrual syndrome is a prevalent issue in young girls that has a negative impact on both their mental health and academic performance. It is important to use strategies to identify and treat PMS in young females.(Nisar et al., 2008)

2.2 The phenomenology of premenstrual syndrome
Premenstrual syndrome (PMS), which is more prevalent in younger age groups and hence poses a serious public health concern for young girls, was the focus of this investigation. Premenstrual syndrome (PMS), its prevalence, severity, causes, and effects are all estimated in this study among female medical students in Al-Ahsa, Saudi Arabia. Physical, mental, emotional, and behavioural symptoms that cycle throughout the luteal phase of the menstrual cycle and disappear fast at or within a few days after the start of menstruation are referred to as premenstrual syndrome (PMS). Up to 90% of women who are childbearing age have premenstrual symptoms.

Premenstrual dysphoric disorder (PMDD) is a diagnosis given to less than 10% of those who match the criteria for premenstrual syndrome (PMS) (American Psychiatric Association, 2000).From June to December 2009, this study was conducted at King Faisal University's College of Medicine in Saudi Arabia. 250 medical students attended. They responded to various questionnaires that asked about demographic and reproductive characteristics, physical activity, mental health, and American College of Obstetrics and Gynecology (ACOG) diagnostic criteria for PMS. All of the predictors were subjected to regression analysis. 35.6% of cases had PMS, which was broken down into 45% mild, 32.6% moderate, and 22.4% severe cases. Age, living in a rural area, family income, and PMS in the family all showed significant tendencies. Concentration in class was the main restricted activity (48.3%). Activities restrictions were substantially more common in severe instances. In the PMS group, anxiety and despair were statistically more common. According to a regression study, PMS was substantially linked to older age groups, rural location, a younger menarche age, regular menses, and family history. In Al Ahsa, young Saudi students frequently get PMS. More premenstrual symptoms, impairment of everyday activities, and psychological distress symptoms were all linked to severe PMS. PMS may be anticipated by factors such as older student age, rural domicile, earlier menarche age, regular cycles, and a favorable family history. These findings need to be confirmed by more research on a sizable population sample, particularly using a prospective method, in order to develop techniques for the earlier identification and treatment of PMS in young women. The inclusion of a reproductive health component in college health education programmers could aid in supplying the young students with information, education, and support. (Balaha, Amr, Moghannum, & Muhaida, 2010)

2.3 Differential behavioral effects of gonadal steroids in women with and in those without premenstrual syndrome

Even though these ladies don't show any signs of ovarian malfunction, premenstrual syndrome symptoms become better when ovarian function is suppressed. Researchers conducted a study to identify the part that progesterone and estrogen play in this illness.

First, this study looked at how premenstrual syndrome symptoms in 20 women were affected by ovarian suppression with leuprolide, an agonist analogue of gonadotropin-releasing hormone, or a placebo. In a double-blind, crossover design, four weeks of estradiol and progesterone were administered to each of the ten women whose symptoms had improved while on leuprolide. The approach was also applied to normal women (women without premenstrual symptoms). Results were evaluated based on patients' daily self-reports and twice-weekly symptom-rating scales administered by raters.

Leuprolide was given to 10 premenstrual syndrome patients, and when compared to baseline levels and values for the 10 placebo-treated patients, there was a significant reduction in symptoms. Leuprolide plus estradiol or progesterone caused a significant recurrence of symptoms in the 10 premenstrual syndrome patients, but neither the 15 healthy controls who received the same treatment nor the 5 premenstrual syndrome patients who received a placebo hormone during continued leuprolide administration experienced any changes in mood.

The emergence of symptoms in premenstrual syndrome patients is an aberrant reaction to typical (Schmidt, Nieman, Danaceau, Adams, & Rubinow, 1998)

2.4 The Effect of Premenstrual Syndrome on Quality of Life

Premenstrual Syndrome (PMS) is a prevalent psychosomatic condition that affects between 30% and 50% of women of reproductive age in mild to moderate form and 3% to 8% in severe form. The biological traits of women in their reproductive age, which can begin as early as adolescence, are specifically linked to the symptoms of this condition. The symptoms' destructive impact on these formative years might leave people feeling inadequate and dissatisfied. This study sought to ascertain the relationship between adolescent girls' quality of life (QOL) and premenstrual syndrome (PMS).the research's methodology is descriptive-analytic. The participants were 360 teenage girls enrolled in the second year of high school in the southern part of

Tehran (180 in each group). According to their respective schools, the participants were chosen using a multistage random clustering approach. The premenstrual syndrome symptom daily record scale, the medical study short form-36 (SF-36), and a demographic questionnaire were completed by respondents. When compared to adolescents in good health, those with PMS showed poorer SF-36 scores across the board (P 0.001). There was no discernible difference between the other SF-36 quality of life scores in the range of PMS severity, with the exception of mental health and vitality (P>0.05). However, SF-36 results for mental health and vitality showed a statistically significant difference in severe PMS compared to mild and moderate PMS (P=0.002).Premenstrual syndrome in teenagers is linked to a significant load on QOL. Additionally, the quality of mental health and vigor decline as PMS symptoms worsen (Arbabi, Shirmohammadi, Taghizadeh, & Mehran, 2008)

2.5 Premenstrual syndrome and dysmenorrhea: Symptom trajectories over 13 years in young adults

To find out how common premenstrual syndrome (PMS) and dysmenorrhea are among Australian women, and to see if there are any population subgroups with particular symptom patterns a research was conducted. A prospective cohort study that followed up on 9671 young women who were randomly selected from the national Medicare database for 13 years looked at the prevalence, trend, and symptom trajectories of the various illnesses. MS and dysmenorrhea prevalence across time, their symptom trajectories, and the likelihood that symptoms will be reported during a follow-up. Data from the prospective cohort study's 1973–1978 cohort of the Australian Longitudinal Study on Women's Health (ALSWH) were used in this analysis. Women who were registered on the national Medicare database, which contains practically all Australian residents, made up the research population. From all regions of Australia, women were chosen at random, with a purposeful oversampling of rural and isolated areas. 14,247 women between the ages of 18 and 23 were a part of the 1973–78 cohort at baseline in 1996. This descriptive population-based study reveals that many young women throughout their reproductive years

reported experiencing PMS and at any study point, over a third reported having PMS, and around a quarter reported having dysmenorrhea. Although greater than the 12–14% reported from an earlier study, the incidence of dysmenorrhea supports findings from a recent review of longitudinal and community-based studies indicating 2-28% severe discomfort in adult women. Between 33 and 41% of people reported having PMS, while between 21 and 26% of people reported having dysmenorrhea. The odds of reporting PMS and dysmenorrhea among women who had previously reported them in three consecutive surveys were 0.75 (95% CI, 0.73, 0.76), and 0.70 (95% CI, 0.68, According to data from an earlier study, 2-28% of adult women have significant discomfort from dysmenorrhea, according to a recent assessment of longitudinal and community-based studies .Between 33 and 41% of respondents claimed to have PMS, while 21 to 26% of respondents claimed to have dysmenorrhea. The reported prevalence's of PMS and dysmenorrhea were 0.75 (95% CI, 0.73, 0.76), and 0.70 (95% CI, 0.68, 0.76), respectively. Among young women, PMS and dysmenorrhea are fairly prevalent. Both have a comparatively steady prevalence throughout time, although individual levels show a lot of variety. There were four categories of women that had comparable symptom trajectories. 80% of the women in the research experienced PMS, and for many of them, it was a persistent issue. Only a small percentage of women consistently reported dysmenorrhea, even though it affected 60% of women. Women who had persistent PMS or dysmenorrhea were more likely to smoke, take illegal drugs, smoke, and be obese. The Human Research Ethics Committee of the University of Newcastle approved the Australian Longitudinal Study on Women's Health (ALSWH). The Publications, Analyses and Sub studies Committee of the ALSWH approved the use of the data for this study in August 2012.(Ju, Jones, & Mishra, 2014)

2.6 Prevalence of Premenstrual Syndrome among Medical Students

In order to determine the prevalence of PMS among all female medical students present on the survey day at Basaveshwara Medical College, Chitradurga, a cross-sectional study was undertaken for a period of six months in 2015. The participants first received a

brief explanation of PMS, after which the objectives and protocol were provided to them. Participants who signed the informed consent form were added to the study's participant pool. A self-evaluation questionnaire was supplied that asked about PMS as well as sociodemographic characteristics such age, location of residence, weight, and height. The severity of PMS was determined using the Allen Lawrence, M.D., PMS Self-Evaluation Questionnaire (PEQ), and it was divided into mild, moderate, severe, and disabling categories. The survey was written in English. Symptoms were examined one week prior to, one week during, and one were deemed significant at the 95% confidence interval (CI). Table 1 and Figure 1 indicate that 31.1% of the individuals in the study had PMS, of which 20% had mild symptoms, 7.4% had moderate symptoms, and 3.7% had severe symptoms. None of them were particularly severe, and the majority of participants (68.9%) did not exhibit any PMS symptoms. Table 1 shows how often PMS is among research participants. Symptoms n=270 (%) is the frequency. No PMS 186 (68.9) Moderate PMS 54 (20) PMS 20 (7.4) moderate PMS severity 10 (3.7) Premenstrual syndrome (PMS). Table 2 reveals that among the study population, 45.8% of MBBS final year students and 36.9% of students between the ages of 23 and 25 years displayed greater PMS symptoms than other groups. Students who lived in dorms (34.2%) and who followed a vegetarian diet (36.5%) experienced more PMS symptoms. A greater degree of symptoms were seen in women who had reached menarche at or before the age of 10 and in underweight women (81.9%). Using Chi Square as the site for the analysis, the outcome is The prevalence of PMS among study participants was 31.1%, and mild, moderate, severe, and very severe forms were manifested by 20%, 7.4%, 3.7%, and 0% of them, respectively. Premenstrual symptoms significantly linked with BMI, residence, MBBS year, and menarche age. Conclusion: Premenstrual syndrome is a serious condition that worsens with age and is highly common among college students. Premenstrual symptoms can be treated with the proper pharmaceutical and non-pharmacological methods if they are recognized in time(Akbari et al., 2017)

2.7 The prevalence of premenstrual syndrome and its associated factors among medical students of Urmia university of medical sciences

When a woman reaches sexual maturity, she may experience premenstrual syndrome (PMS), a combination of psychological, physical, and behavioral symptoms that arise in the late luteal phase of the menstrual cycle, go away a few days later when menstruation begins, and recur repeatedly. This study set out to determine the prevalence of PMS among medical students as well as its contributing variables. The study involved 142 medical students from Urmia University of Medical Sciences' Medicine Faculty who agreed to participate. Premenstrual Syndrome Scale and DSM-IV criteria PMS questionnaires were used to gather the research's findings. Based on DSM-IV and ICD-10 criteria, PMS was found in 39.4% of the students and 79.6% of the students, respectively. 60.6% of the symptoms were mild, 25.1% were medium, and 14.2% were severe in severity. The most frequent symptoms are largely changes in mood, a loss of vivacity, depression, and early exhaustion. Students who have used medicines to treat PMS symptoms and have first-degree relatives with a positive history of the condition were shown to have significantly higher levels of PMS (p 0.05). College students have a comparatively high risk of PMS. This high prevalence offers a compelling justification for better diagnosing and treating the disease.(Farrokh_eslamlou, Nabilou, Oshnouei, & Akbari, 2013)

Methodology
Ethical Consideration
This study was approved by the ethical committee of Akhtar Saeed College of Pharmaceutical Sciences. Before conducting the research, an informed consent was also obtained from each and every participant. Research ethics were also taken into account, as no deception or misleading information was employed as the basis for the study.

Study Design
A cross-sectional survey was carried out from February 2023 to June 2023 The target population for this study was random population in Lahore, whose awareness, attitudes and considered barriers towards E-learning were evaluated.

Study population
The research included a total of 410 participants (n=442).. Incomplete forms were excluded while evaluating results. The study was conducted in institutes offering the degree of Doctor of Pharmacy in Lahore, Lahore.

Inclusion criteria
It was performed on population aged from 12 to 45. Population having PMS was only included.

Exclusion criteria
Population aged less than 12 and more than 45 were exclude. Population not having PMS was excluded. Women were ineligible to participate if they were not currently menstruating.

Procedure
Participants were drawn randomly from various colleges and universities, both private and public hospitals. Before the initiation of the survey, the participants were given a full explanation regarding the purpose of this research, and their consent to participate in the study was obtained. The questionnaires were in Urdu and English language and were developed as a soft copy using the Google form and distributed via various social media platforms available online to the participants taking part in the research and hard copy for the illiterate ones. The filled questionnaires were collected at the moment or later at a suitable time indicated by respondents. In some cases, women were not keen to participate in the study because of their busy schedule.

Sample Size
According to census 17, the total population in Lahore estimated was 11.126 million out of which female population was 5.300 million. This data has been collected from official website of District profile, (https://lahore.punjab.gov.pk/district_profile).
Raosoft Calculator® was used to choose the sample size within a 95% confidence level, 5% margin of error and population size of 5.3million , yielding a sample size of 385 participants for the study that was estimated to be representative of the population of pharmacy students currently studying in Lahore. Considering a 15% dropout in mind, in order to get an optimal response ratio, a total of 442 sample size was the final number of responses required for data collection. Different participants were approached via various social media platforms available online or on web.

Questionnaire Development
After reviewing already published literature and going through more than 60 publications on the premenstrual syndrome, we developed a pre-tested and refined self-developed questionnaire for the purpose of research. The developed questionnaire was initially tested by sending it to the supervisor in order to ensure its legitimacy, authenticity and typography for consistency, significance and appropriateness and once it was approved it was shared with the participants. This survey comprised of 37 questions which required not more than 3 to 5 minutes to complete. This brief questionnaire was split into 2 sections/categories. The first section was designed to give a brief introduction about demographics, The second section which is severity of premenstrual syndrome is further divided in to three sub sections, the first one is affective symptoms ,second subsection is physical symptoms and the third or last subsection is impact on relationship/activities.

Method of Data Collection
An online Google form for research was generated. In Feb 2022, the questionnaire was circulated among the desired study population through online communication by using social platform and hard copy was also available .
Women from various colleges, universities and hospitals in Lahore were approached randomly to participate in the study. After giving an introduction regarding the topic and purpose of research and taking consent from the respondent the questionnaire (google form) was sent to them via various social media platforms available or most convenient to use for the respondent. The questionnaire was in English and Urdu language, distributed as soft copy using the Google form and distributed via various social media platforms available online to the participants taking part in the research and hard copy was also available. The filled questionnaires were collected at the moment or later

at a suitable time indicated by respondents. In some cases, the students were not keen to participate in the study because of their busy schedule. Participants were able to read the aim of the research study, the research title, its purpose, its objective and their permission to participate in the study once the questionnaire was provided to them. For ease of comprehension, the study questions were stated in clear, simple, and well-defined words. The research coordinators were accessible to answer any questions at any time to provide ease to the respondents. The data collected was retrieved in June, 2023 from google database and results were calculated

Statistical Analysis Tools
Data analysis was accompanied using Statistical tools. Statistical Package for Social Sciences (**IBM SPSS, version 26.0**), has been used for analysis of the collected data. Then descriptive statistics were applied for calculation of frequencies and percentages.

RESULTS:
Total of 442 women participated in our study. The age of participants was between 12-45. After evaluating the results of filled questionnaires, it was found that PMS cases we had were mostly unmarried (70.8%) ,often had physical activity (44.3%) and not working(71.5%) even though majority had higher education(90.3%), have experienced their first menses at age above 12(51.4). Majority of patients didn't have family history of PMS(80.3%).(Table 1)

Table 1 Frequency distribution of sociodemographic variables available for PMS

DEMOGRAPHICS	FREQUENCY (N=442)	PERCENTAGE %
AGE		
13-30(years)	240	54.3
30-45(years)	202	45.7
MARTIAL STATUS		
Married	129	29.2
unmarried	313	70.8
EDUCATION		
Formal education	399	90.3
No formal education	43	9.7
EMPLOYMENT STATUS		
Working	126	28.5
Not working	316	71.5
PHYSICAL ACTIVITY		
Regular	190	43
Seldom	56	12.7
Often	196	44.3
BODY WEIGHT		
40-50	105	23.8
50-60	179	40.5
60-70	104	23.5
Above 70	54	12.2
USUAL LENGTH OF MENSTRUAL CYCLE		
21-28	272	61.5
28-35	115	26
Irregular to calculate	55	12.4
MENARCHE(YEARS)		

Less than 12	215	48.6
More than 12	227	51.4
DURATION OF BLEEDING		
Less than 3	86	19.5
3-7	307	69.5
More than 7	49	11.1
EVER BEEN PREGNANT		
Yes	102	23.1
No	339	76.9
ORAL CONTRACEPTIVE USE		
Yes	53	12
no	389	88
USE OF DRUG FOR MENSTRAL CYCLE REGULATION		
Yes	78	17.6
No	364	82.4
FAMILY HISTORY OF PMS		
YES	355	19.7
NO	87	80.3

Table 2. illustrate the severity of symptoms among the participants having PMS. We had three different classes of symptoms i.e. affective symptoms, physical symptoms, and symptoms that affect the relations or activity. The symptoms most frequently rated as "**severe**" by all participants included the tendency to cry easily (23.82%), irritability (21%), food cravings (18.3%), mood swings (18.3%),and cramps (19.0%). Mostly were rated as "**moderate**" and includes anxiety(21.3%), desire to be alone(27.4%), angry outburst(25.8%), back pain(31.2%), difficult concentration(25.8%), social isolation(20.1%)

Table 2 Severity of premenstrual symptoms of all study participants (n=442) having PMS

	FREQUENCY (N=442)	PERCENTAGE %
AFFECTIVE SYMPTOMS		
ANXIETY		
No symptoms	128	29
Mild symptoms	184	41.6
Moderate symptoms	94	21.3
Severe symptoms	36	8.1
DEPRESSION		
No symptoms	179	40.5
Mild symptoms	161	36.4
Moderate symptoms	81	18.3
Severe symptoms	21	4.8
MOOD SWINGS		
No symptoms	44	9.9
Mild symptoms	170	38.5
Moderate symptoms	147	33.3
Severe symptoms	81	18.3
TEDENCY TO CRY EASILY		

No symptoms	82	18.6
Mild symptoms	134	30.3
Moderate symptoms	121	27.4
Severe symptoms	105	23.8
DESIRE TO BE ALONE		
No symptoms	99	22.4
Mild symptoms	132	29.9
Moderate symptoms	123	27.8
Severe symptoms	88	19.9
IRRETABILITY OR TENISON		
No symptoms	76	17.2
Mild symptoms	145	32.8
Moderate symptoms	126	28.5
Severe symptoms	95	21.5
ANGRY OUTBURST		
No symptoms	77	17.4
Mild symptoms	144	32.6
Moderate symptoms	114	25.8
Severe symptoms	107	24.2
PHYSICAL SYMPTOMS		
ABDOMINAL BLOATING		
No symptoms	152	34.4
Mild symptoms	146	33.0
Moderate symptoms	101	22.9
Severe symptoms	43	9.7
ABDOMINAL CRAMPING		
No symptoms	70	15.8
Mild symptoms	168	38.0
Moderate symptoms	126	27.1
Severe symptoms	84	19.0
ACNE		
No symptoms	214	48.4
Mild symptoms	132	29.9
Moderate symptoms	69	15.6
Severe symptoms	27	6.1
BACK PAIN		
No symptoms	64	14.5
Mild symptoms	162	36.7
Moderate symptoms	138	31.2
Severe symptoms	78	17.6
DIFFICULT CONCENTRATION		
No symptoms	142	32.1
Mild symptoms	150	33.9
Moderate symptoms	114	25.8
Severe symptoms	36	8.1
HEADACHE		

No symptoms	165	37.3
Mild symptoms	151	34.2
Moderate symptoms	81	18.3
Severe symptoms	45	10.2
INSOMNIA		
No symptoms	211	47.7
Mild symptoms	131	29.6
Moderate symptoms	66	14.9
Severe symptoms	34	7.7
FOOD CRAVING		
No symptoms	109	24.7
Mild symptoms	136	30.8
Moderate symptoms	116	26.2
Severe symptoms	81	18.3
BREAST ENLARGMENT		
No symptoms	226	51.1
Mild symptoms	139	31.4
Moderate symptoms	56	12.7
Severe symptoms	21	4.8
NAUSEA		
No symptoms	232	52.5
Mild symptoms	130	29.4
Moderate symptoms	50	11.3
Severe symptoms	30	6.8
CONFUSION		
No symptoms	217	49.1
Mild symptoms	144	32.6
Moderate symptoms	56	12.7
Severe symptoms	25	5.7
IMPACT ON RELATIONSHIPS/ACTIVITIES		
RELATIONSHIP DISCORD WITH FAMILY OR PARTNER		
No symptoms	225	50.9
Mild symptoms	135	30.5
Moderate symptoms	60	13.6
Severe symptoms	22	5.0
RELATION DISCORD WITH FRIENDS OR CO WORKER		
No symptoms	206	46.6
Mild symptoms	151	34.2
Moderate symptoms	69	15.6
Severe symptoms	16	3.6
POOR WORK PERFORMANCE		
No symptoms	180	40.7
Mild symptoms	146	33.0
Moderate symptoms	80	18.1
Severe symptoms	36	8.1
SOCIAL ISOLATION		

No symptoms	183	41.4
Mild symptoms	126	28.5
Moderate symptoms	89	20.1
Severe symptoms	43	9.9

The symptoms of PMS i.e. affective, physical, symptoms affection the relations or activity to age groups are shown in table 3. Participants between the age 30-45 were likely to have less PMS symptoms, whereas the symptoms were more severe in other age group. No significant difference was found between married and unmarried women. A significant difference in symptoms severity was observed in age groups, with the 12-30 years old age group having the highest figures. Following symptoms were more common and severe in young age i.e. mood swing 66.7% (*p=0.006*), tendency to cry easily 68.6%(*p=0.004*), angry outburst 65.4%(*p=0.021*),

Desire To Be Alone 60.2% (*p=0.017*),irritability or tension 64.2% (*p=0.010*), abdominal bloating 76.6% (*p=0.009*), Abdominal Cramps 71.5% (*p=less than 0.001*), Acne 66.7% (*p=less than 0.001*), Back Pain 69.2% (*p=less than 0.001*), food craving 70.4% (*p=less than 0.001*), breast enlargement 85.7% (*p=0.009*), nausea 83% (*p=0.002*). Some of these symptoms were also common in middle aged women but had less severity in them. Most common symptom in middle aged women were relationship discord with family and friend 68.2% (*p=0.002*), relationship discord with friends or coworker 68.6% (*p= 0.148*)

Table 3 Comparing the severity of symptoms between the young girls and middle aged women.

		Age		
		Young age (13-30)	Middle age (30-45)	P significant value
		Count (%)	Count (%)	
Anxiety	no symptoms	67 (52.3)	61 (47.7)	0.947
	mild symptoms	102 (55.4)	82 (44.6)	
	moderate symptoms	52 (55.3)	42 (44.7)	
	Severe symptoms	19 (52.8)	17 (47.2)	
Depression	no symptoms	103 (57.5)	76 (42.5)	0.423
	mild symptoms	82 (50.9)	79 (49.1)	
	moderate symptoms	46 (56.8)	35(43.2)	
	severe symptoms	9 (42.9)	12 (57.1)	
Mood Swings	no symptoms	18 (41.9)	25 (58.1)	0.006*
	mild symptoms	80 (47.1)	90 (52.9)	
	moderate symptoms	88 (59.9)	59(40.1)	
	severe symptoms	54 (66.7)	27(33.3)	
Tendency To Cry Easily	no symptoms	35(42.7)	47(57.3)	0.004*
	mild symptoms	69(51.5)	65(48.5)	
	moderate symptoms	64(52.9)	57(47.1)	
	severe symptoms	72(68.6)	33(31.4)	
Desire To Be Alone	no symptoms	40(40.4)	59(59.6)	0.017*
	mild symptoms	75(56.8)	57(43.2)	
	moderate symptoms	74(60.2)	49(39.8)	
	severe symptoms	51(58.0)	37(42.0)	
Irritability Or Tension	no symptoms	31(40.8)	45(59.2)	0.010*
	mild symptoms	85(58.6)	60(41.4)	

	moderate symptoms	63(50)	63(50)	
	severe symptoms	61(64.2)	34(35.8)	
Angry Outburst	no symptoms	33(42.9)	44(57.1)	0.021*
	mild symptoms	75(52.1)	69(47.9)	
	moderate symptoms	62(54.4)	52(45.6)	
	severe symptoms	70(65.4)	37(34.6)	
Abdominal Bloating	no symptoms	73(48)	79(52)	0.009*
	mild symptoms	77(52.7)	69(47.3)	
	moderate symptoms	57(56.4)	44(43.6)	
	severe symptoms	33(76.7)	10(23.3)	
Abdominal Cramps	no symptoms	31(44.3)	39(55.7)	Less than 0.001*
	mild symptoms	78(46.4)	90(53.6)	
	moderate symptoms	71(59.2)	49(40.8)	
	severe symptoms	60(71.4)	24(28.6)	
Acne	no symptoms	94(43.9)	120(56.1)	Less than 0.001*
	mild symptoms	81(61.4)	51(38.6)	
	moderate symptoms	47(68.1)	22(31.9)	
	severe symptoms	18(66.7)	9(33.3)	
Back Pain	no symptoms	43(67.2)	21(32.8)	Less than 0.001*
	mild symptoms	63(38.9)	99(61.1)	
	moderate symptoms	80(58.0)	58(42)	
	severe symptoms	54(69.2)	24(30.8)	
Difficult Concentration	no symptoms	74(52.1)	68(47.9)	0.598
	mild symptoms	87(58)	63(42)	
	moderate symptoms	58(50.9)	56(49.1)	
	severe symptoms	21(58.3)	15(41.7)	
Headache	no symptoms	83(50.3)	82(49.7)	0.248
	mild symptoms	81(53.6)	70(46.4)	
	moderate symptoms	46(56.8)	35(46.2)	
	severe symptoms	30(66.7)	15(33.3)	
Insomnia	no symptoms	114(54)	97(46)	0.983
	mild symptoms	70(53.4)	61(46.4)	
	moderate symptoms	37(56.1)	29(43.9)	
	severe symptoms	19(55.9)	15(44.1)	
Food Craving	no symptoms	43(39.4)	66(60.6)	Less than 0.001*
	mild symptoms	63(46.3)	73(53.7)	
	moderate symptoms	77(66.4)	39(33.6)	
	severe symptoms	57(70.4)	24(29.6)	
Breast Enlargement	no symptoms	115(50.9)	111(49.1)	0.009*
	mild symptoms	81(58.3)	58(41.7)	
	moderate symptoms	26(46.4)	30(53.6)	
	severe symptoms	18(85.7)	3(14.3)	
Nausea	no symptoms	126(54.3)	106(45.7)	0.002*
	mild symptoms	59(45.4)	71(54.6)	
	moderate symptoms	30(60)	20(40)	

	severe symptoms	25(83.3)	5(16.7)	
Confusion	no symptoms	116(53.5)	101(46.5)	0.488
	mild symptoms	74(51.4)	70(48.6)	
	moderate symptoms	34(34)	22(39.3)	
	severe symptoms	16(64)	9(36)	
Relationship Discord With Family Or Friend	no symptoms	137(60.9)	88(39.1)	0.002*
	mild symptoms	73(54.1)	62(45.9)	
	moderate symptoms	23(38.3)	37(61.7)	
	severe symptoms	7(31.8)	15(68.2)	
Relationship Discord With Friends Or Coworker	no symptoms	117(56.8)	89(43.2)	0.148
	mild symptoms	85(56.3)	66(43.7)	
	moderate symptoms	33(47.8)	36(52.2)	
	severe symptoms	5(31.3)	11(68.8)	
Poor Work Performance	no symptoms	90(50)	90(50)	0.238
	mild symptoms	89(61)	57(39)	
	moderate symptoms	43(53.8)	37(46.3)	
	severe symptoms	18(50)	18(50)	
Social Isolation	no symptoms	95(51.9)	88(48.1)	0.714
	mild symptoms	71(56.3)	55(43.7)	
	moderate symptoms	48(53.9)	41(46.1)	
	severe symptoms	25(58.1)	18(41.9)	

DISCUSSION

Our questionnaire comprised of two parts one was for young females and the other for middle aged women . Our studies and surveys showed that the young girls are more into PMS as compared to the middle aged women .

Young girls have somehow more symptoms like abdominal bloating , discomfort, tensions , irritability in stomach , headache and many other symptoms as compared to older women . The major symptom observed during the menstrual phase is pain . Girls showing the indication of pain were quite high .

PMS was extensive among the teens as expected, and had a significant and independent association with PMS in the adjusted analysis. Ninghty six percent of the teens reported some degree PMS.

Several studies have reported multiple risk factors associated with PMS, where stress, age, body mass index, and marital status were found to exacerbate the symptoms. These symptoms had their significance in both of the age groups observed in the studies . (Abu Alwafa, Badrasawi, & Haj Hamad, 2021)

According to our study on Pakistani women, physical symptoms prevail in the premenstrual experience of young aged girls , and the more typical symptoms they report experiencing are mood swings, irritability, and stomach bloating and cramp, back pain, and breast tenderness were listed as the most typical symptoms Anxiety, despair, exhaustion, and anger were the most frequently reported symptoms, according to several writers . our surveys have linked premenstrual symptoms experienced by women to skin conditions, bloating in the arms and legs, problems with digestion (including a decrease in appetite), and headaches. Some of the women employ self-care techniques to reduce these symptoms, with the most popular ones being the usage of analgesics and increased hot liquid intake. But some women don't employ any technique whether medication or non-medication technique for their relief .

The limitation we faced during the study was the middle aged women were less compliant towards the questionnaire rather than young girls. This led to inconsistencies in the results, which made it challenging to compare the prevalence of PMS adequately in both groups and turned it into a restriction. This was a major constraint in there.

Major findings from this study suggest that premenstrual symptoms significantly affect health-related quality of life and may result in increased health care utilization and decreased opportunistic approaches
(Vichnin et al., 2006)
These findings indicate that although nearly two third of the teens said they had PMS when asked in the questionnaire, when the reported severity, impairment, and timing of the symptoms were taken into consideration. These data show the importance of determining the severity of the symptoms and their relationship to the menstrual cycle, as numerous studies have shown. The results also challenge the belief that PMS is unusual in teenagers, although the incidence is much lower in middle aged women .(Derman, Kanbur, Tokur, & Kutluk, 2004)

Conclusion:
Premenstrual syndrome is a complex disorder with multiple causes. Adolescent girls are disproportionately affected. We propose that the diagnosis of PMS is frequently underestimated because different PMS criteria are utilized in different research. Furthermore, because PMS symptoms are mostly moderate, adolescent girls are uninformed of the reason and treatment of PMS. Prevalence of PMS symptoms in young girls are high as compared to adults such as back pain, angry outburst. Premenstrual symptoms can be handled with appropriate pharmacological and non-pharmacological treatments if recognized in time. As a result, it is recommended that lifestyle changes and counselling be implemented.

DEDICATION
"Feeling honorable and proud to dedicate my work to my family especially my beloved parents and dearest siblings"

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