

Premenstrual Syndrome among Health Care Providers

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ABSTRACT

An observational cross-sectional study carried out in Kohi Goth Hospital from 25-07-2019 to 25-01-2020.

Objective of Study: The objective of study was to access the frequency of premenstrual syndrome among health care providers (Doctors and paramedical staff) and to list the major clinical features of premenstrual syndrome among those health care providers.

Methodology: Out of 200 health care providers reported having PMS 100 (50%) were Doctors and 100 (50%) were paramedical staff who were interviewed and studied in further details using a pre-designated semi structured Data Collection Questionnaire which included socio demographic and clinical profile of the responders. In socio demographic profile age, marital status, designation (doctors and paramedical staff) were asked while clinical profile includes those signs and symptoms of respondent that has occurred in at least 2 or 3 periods of their last menstrual cycles and resolved completely by the end of leaving a symptom free week.

Results: A total of 200 subjects meeting the inclusion criteria were included in the study. The lowest age of subjects was 20 years and the highest age was 40 years. The highest number of health care providers 125(62.5%) belonged to age class 20-24 years, 60(30%) were in age category of 25-30 years and 15(7.5%) were in age group of 31-40 years. There were 100(50%) doctors and 100(50%) were paramedics. Out of 200 health care providers 75(37.5%) were married and 125(62.5%) were unmarried. Out of 200 study participants premenstrual syndrome (PMS) was found in 152(76%) subjects and 48(24%) were without the syndrome. Out of 125 (62.5%) study subjects who were in the age category of 20-24 years PMS was found in 110(80%). Out of 60(30%) subjects of age category of 25-30 years PMS was found in 35(58.3%) and out of 15 (7.5%) subjects of age category of 31-40 years PMS was found 7(46.6%). Out of 152(76%) of subjects with PMS, loss of appetite was found in 40(26.3%), strong desire for food found in 10(6.5%), subject felt thirsty, were 24(15.7%), excessive sleep was found in 25(16.4%), loss of sleep was found in 15(9.8%), increased sexual desire was found in 3(1.9%). Decrease sexual desire was found in 4(2.6%). Loss of confidence was found in 18(11.8%) and social Isolation was in 50(32.8%). Out of 152 subjects symptoms of swelling was found in 20(13.1%). Breast swelling was found in 29(19.1%). Nausea was experienced by 15(9.8%). Weight was gained by 9(5.9%) subjects. Headache was experienced by 30(19.7%) subjects. Fatigue was found in 80(52.6%) subjects and constipation was found in 21(13.8%).

Conclusion: Premenstrual syndrome is a condition that affects adolescent more frequently. The diagnosis of PMS is miscalculated since diverse criterias were used in published studies. This study was shows that PMS is a common problem among women of reproductive use group. Marital status and age do not affects the prevalence of PMS. Fatigue, social isolation loss of appetite, feel thirsty, loss of confidence and excessive sleep were most common psychological symptoms, while headache, breast swelling and constipation were most common physical symptoms. Largely ignored both clinically and scientifically in Pakistan, PMS merits further biosocial investigations and doctors should pay attention and adopt comprehensive measure in order to reduce the recurrence and improve the quality of life.

INTRODUCTION

Premenstrual syndrome is distressing physical, psychological and behavioral symptoms, not cause by organic disease, regularly occur during the same phase of menstrual cycle and disappear during remainder of cycle¹. Premenstrual syndrome is believed to affect upto 80% of women of reproductive age. Severe premenstrual syndrome, or premenstrual dysphoric disorders affecting 3-8% of women, imposing an enormous burden on these individuals and their families.² A patient who underwent hysterectomy without removing ovaries can still suffer pain related to PMS. This syndrome is known as "ovarian cycle syndrome". Symptoms of premenstrual syndrome include emotional hypersensitivity, irritability, mood swings, depression, anxiety, fear of loss of control and social withdrawal, nervousness and tension are core elements of PMS- somatic symptoms includes feeling of bloatedness fatigue, myalgia, breast tenderness, headache, food craving and poor co-ordination³. Women are affected during the leuteal phase of menstrual cycle and the syndrome includes virtually all symptoms that affect any systems in a cyclical manner. The fact that no biological marker has been identified only adds to our lack of understanding. There is no universal definition of PMS as so many symptoms have been associated with this condition, but there is no doubt that it does not occur prior to puberty, after menopause, or during pregnancy. Premenstrual dysphoric disorder is extreme predominantly psychological end of PMS spectrum estimated to occur in 3-9% of women⁴. Previously is said that it is a disease of multiparous women. The symptoms beginning after

child birth and often following postnatal depression. It is probable, however, that this group of women report their symptoms, whilst younger and less educated women experience equally severe problem but not recognized them as such⁵. Significant number of women who present with PMS have another underlying problem such as perimenopause, thyroid disorder, migraine, chronic fatigue syndrome, irritable bowel syndrome, seizures, anemia, endometriosis, drug, alcohol abuse, menstrual disorders as well as psychiatric disorders.

The confirmation of leuteal phase timing with the relieve of symptoms by the end of menstrual cycle is diagnostic providing the symptoms are such severity to impact on the patient's normal functioning⁶. As estimated 80% of menstruating women in leuteal phase defining PMS is further complicated in that there are no gold standard biological, behavioral, or other measures to validate and compare differing definitions of PMS. It is generally recognized belief in medicine that adolescent undergodysmenorrhoea, but that PMS is rare in this adolescent group⁷. Treatment of PMS includes painkillers, rest, drinking more fluids and exercise most effective treatment found to be dietary changes, evening primrose oil, vitamin B2 and exercise⁸. Thus premenstrual syndrome is a debilitating condition that may seriously affect the life of its sufferers. The specific hormonal and psychological conditions of adolescence can make the treatment of premenstrual syndrome quite and challenging⁹.

Objective of Study: The objective of this study is to:

1 To determine the frequency of premenstrual syndrome among health care providers (doctors and paramedical staff).

2 To enlist clinical features of premenstrual syndrome among these health care providers.

Operational Definition: A health care provider is a person who delivers proper health care in a systematic way professionally to any individual in need of health care services which include physicians, operating department practitioners, dentists, physician assistants, nurse practitioners, nurses, pharmaconomists/pharmacists, dietitians, therapists, psychologists, chiropractors, physical therapists, optometrists, paramedics. Premenstrual syndrome is a collection of physical, psychological and emotional symptoms related to a woman's menstrual cycle.

METHOD AND MATERIAL

Study Design: Cross sectional study.

Setting: This study will be conducted among health care providers (doctors and paramedical staff) of Kohi Goth Hospital, Karachi.

Inclusion Criteria:

- 1 Age 20-40 years.
- 2 Regular menstrual cycle.
- 3 No history of any medical disorder.

Duration of Study: 6 months starting from 25th July 2019 till to 25th January 2020

Sampling Technique: Non-probability convenient sampling

Sample Selection: Healthcare providers who fulfilled the inclusion criteria were selected from OPDs, Wards, Operation theatres, Laboratories and Pharmacy departments of the Kohi Goth Hospital.

Exclusion Criteria: All health care providers who are:

- 1 Pregnant.
- 2 Breast feeding their child.
- 3 Having menstrual irregularities.
- 4 Using birth control pills.
- 5 Using psychotropic agents.
- 6 Perimenopausal.

Methodology: These health care providers were interviewed using A predesignated and semistructured data collection questionnaire. Each responder were personally contacted to take history and complete data collection questionnaires. Data collection questionnaires includes socio-demographic profile includes age, mental status, designation (doctors, paramedical staff). Clinical profile includes all those signs and symptoms of respondent that has occurred in at least 2 or 3 periods of their last premenstrual cycles and resolved completely by the end of leaving symptoms free week.

RESULTS

A total of 200 subjects meeting the inclusion criteria were included in the study. The lowest age of subjects was 20 years and the highest age was 40 years. The highest number of health care providers 125(62.5%) belonged to age class 20-24 years, 60(30%) were in age category of 25-30 years and 15(7.5%) were in age group of 31-40 years. Age distribution of patients is presented in Table 1. Characteristics of study participants is shown in Table 2. There were 100(50%) doctors and 100(50%) were paramedics. Out of 200 health care providers 75(37.5%) were married and 125(62.5%) were un-married as shown in Table 3. Out of 200 study participants premenstrual syndrome (PMS) was found in 152(76%) subjects and 48(24%) were without the syndrome. Age wise stratification is shown in Table 4. Out of 125 (62.5%) study subjects who were in the age category of 20-24 years PMS was found in 110(80%). Out of 60(30%) subjects of age category of 25-30 years PMS was found in 35(58.3%) and out of 15 (7.5%) subjects of age category of 31- 40 years PMS was found 7(46.6%). Out of 100(50%) of doctors, PMS was found in 75(75%) and among 100(50%) of Paramedics 84(84%) had PMS. As shown in Table 5. Distribution of Psychological symptoms among study

participants is shown in figure 2. Out of 152(76%) of subjects with PMS, loss of appetite was found in 40(26.3%), strong desire for food found in 10(6.5%), subject felt thirsty, were 24(15.7%), excessive sleep was found in 25(16.4%), loss of sleep was found in 15(9.8%), increased sexual desire was found in 3(1.9%). Decrease sexual desire was found in 4(2.6%). Loss of confidence was found in 18(11.8%) and social Isolation was in 50(32.8%). Distribution of Physical symptoms among those subjects with PMS is shown in figure 3. Out of 152 subjects symptoms of swelling was found in 20(13.1%). Breast swelling was found in 29(19.1%). Nausea was experienced by 15(9.8%). Weight was gained by 9(5.9%) subjects. Headache was experienced by 30(19.7%) subjects. Fatigue was found in 80(52.6%) subjects and constipation was found in 21(13.8%).

Table 1: Distribution of Cases According to Age n=200

Age Group	N (%)
20-24 Years	125 (62.5)
25-30 Years	60 (30)
31-40 Years	15 (7.5)
Total	200 (100)

Table 2: Characteristics of Subjects n=200

Characteristics	N (%)
Doctors	100 (50)
Paramedics	100 (50)

Table 3: Marital Status n=200

Status	N (%)
Married	75 (37.5)
Un Married	125 (62.5)

Table 4: Age Wise Stratification of Subject's with PMS

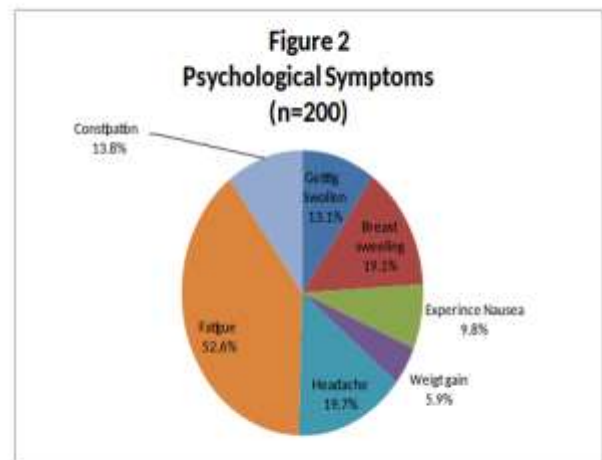
Age Group	N (%)	PMS* n(%)
20-24 Years	125 (62.5)	110 (80)
25-30 Years	60 (30)	35 (58.3)
31-40 Years	15 (7.5)	7 (46.6)
Total	200 (100)	152 (76)

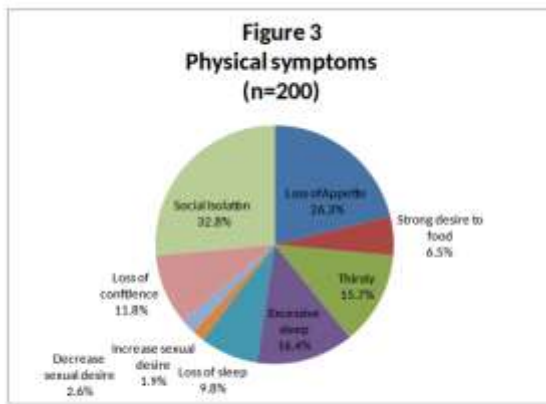
Premenstrual Syndrome

Table 5: Characteristics of Study Subjects with PMS

Characteristics	N (%)	PMS* n(%)
Doctors	100 (50%)	75 (75)
Paramedics	100 (50%)	84 (84)
Married	75 (37.5%)	45 (60%)
Un Married	125 (62.5%)	107 (85.6)

Pre Menstrual Syndrome





DISCUSSION

The analysis of PMS essentially should emphasize on three important elements:

- 1 Manifestations of the syndrome should occur during the late phase of the physiological menstrual cycle and decline after the start of cycle within few days.
- 2 Discomfort should be present for few consecutive menstrual periods.
- 3 Symptoms should be periodic and no other medical or emotional cause is identified¹⁰.

Many succeeding research papers have concluded that reduced luteal phase hormone production or altered luteal segment hormonal ratio is responsible for PMS. A dissimilarity of other hypothesized causes of disease have been invalidated. Philosophies that favor increased prolactin levels, low glucose levels or insufficiencies of trace elements in women with disease are not identified by research. No precise laboratory investigation that can rule out PMS. We conclude that confirmation of PMS requires acceptable behavior and one should keep away from undue managements. Around 30% of women of procreative age are assumed to grieve from disease. One literature of nearly 400 teenagers stated that the prevalence of PMS was 14%. The occurrence of the disease in our study was 76%. This was the maximum ratio compare to the available publications. In a study carried out in Beijing on 454 women of reproductive age 15-49 years showed that prevalence of PMS in those women were 30-40%. The frequency of symptoms occurring in PMS were irritation, depression, anxiety, diarrhea, lack of concentration and hypersomnia fatigue, headache¹¹. Our study does not correlate with above study as fatigue is frequent among our study population but differ from above study as headache, diarrhea, depression, irritation, anxiety, lack of concentration and hypersomnia were not a frequent observed¹².

A study carried out in Turkey premenstrual syndrome and associated symptoms in adolescent girls were frequently observed¹³. Study includes 170 teenagers who are 10-17 years. The most frequent physical symptom is dysmenorrhea (57.1%) while psychological was stress (87.6%) and nervousness (87.6%). Our study was not consistent with above study as most frequent observed physical symptom in our study was fatigue (52.6%) while age group in our study was 20-40 years as compared with adolescent girl 10-17 years. Most frequent psychological symptom were loss of appetite (26.3%) and social isolation (32.8%). Study carried out in Bulgaria, occurrence, intensity and period of appearance of most psychosomatic symptoms characteristics in adolescent girls were observed in PMS. Study includes 186 girls, age between 16 and 18 years. The most frequent physical

symptom was headache (39%) while most frequent psychological symptom was irritability¹³.

Our study is consistent with above study as most frequent physical symptom was headache (30%) while psychological were fatigue (80%) and social isolation (50%). A study conducted in America showed 76% prevalence of PMS with very high frequency of psychological symptoms¹⁴. Our study also correlate with above study as PMS was found to be 76% in our population. Prevalence of PMS was observed to be 88% in a sample of 75 adolescent girls in one study carried out in 1998. The symptoms most commonly reported were food craving, breast swelling, stressed feelings, and dissatisfaction with appearance. In our study frequency of symptoms were 76% except breast swelling (19.1%). Other symptoms were not frequently observed. An observational study was conducted at Peshawar (Pakistan) on 384 young girls (unmarried) of medical college, showed that frequency of PMS was 53% and order of incidence of symptoms up in PMS was general body discomfort (90%), anxiety (77%), backache (77%), fatigue (75.9%) and depression (77%), loneliness (social isolation), low self-esteem (loss of confidence) (42%), nausea (36%) and headache (42%)¹⁵.

Our study is correlate with above study as fatigue and social isolation are frequent among study group while others not observed frequently. A prospective longitudinal study carried out in Scandinavia in 2001 on 299 women age 21-35 years results of study showed that irritability, nervousness and tension irrespective of associated sad mood were core elements of premenstrual syndrome. Data from Chinese study concluded on 16 women, living in urban areas to explore PMS showed that significantly having the higher symptoms during premenstrual phase were fatigue, increased sensitivity to cold, increase sleep, abdominal discomfort, painful and tender breasts and decrease sexual desire and the percentage of women who experience severe mood changes and irritability, loss of appetite are range from 13%-25%¹⁶.

In our study fatigue 52.6% while 16.4% increase sleep and decrease sexual desire in 2.6%, loss of appetite 26.3% other variables are not observed in study population. It is obvious from review of literature and discussion that no single feature constantly occurred in a diversified geographic population. In our society topics like PMS and menstruation are rarely discussed openly and people feel embarrassed to discuss the psychological problems. Treatment of PMS with NSAIDs, anxiolytics and hormones may reduce the severity of symptoms and improve quality of life¹⁷.

CONCLUSION

Premenstrual syndrome is a condition that effects teenagers more frequently. The management of PMS is miscalculated since diverse measures for PMS are used in available literature. PMS influences a women's health-related quality of life, non attendance and reduced work productivity, and women might benefits from the suitable treatment of symptoms, not only symptoms resolution but possibly in better health related value of life, work productivity, and reduced nonattendance.

This study shows that premenstrual syndrome is a mutual problem among women of procreative age group. Marital status and age affects the prevalence of PMS. Fatigue, social isolation, loss of appetite, loss of confidence excessive sleep are among the most common psychological symptoms while headache, breast swelling and constipation were more common physical symptoms. Majority of the girls cannot do their routine work very well during this phase. A daily symptoms diary is needed to make a diagnosis of PMS and PMDD because most somatic and psychological conditions get worse premenstrually. In Pakistan PMS is largely ignored, so it required further investigations and doctors should pay attention in order to reduce the incidence and improve quality of life.

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