

Original Article

Measure the Symptoms Related to Pre-Menstrual Syndrome Among Married and Unmarried Females During their Reproductive Life Span.

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Abstract

Objective The study was aimed to estimate premenstrual syndrome and its consequent symptoms in married and unmarried females during menstrual phase, pre-ovulatory phase and post-ovulatory phase. **Methodology** A cross sectional survey based study has been conducted in young females of 25-35 age groups. Participants were divided into two groups. Group A were with PMS and group B were healthy subjects. The evaluation of manifestations in all three phases was gathered by using PRISM calendar. The data was collected and stored and analyzed by applying Chi-square test by using SPSS v.22.0. **Result** The result revealed that the severity was different among unmarried (55%) and married (50%) in all three phases of Menstrual cycle. Unmarried female shows their symptoms 54.5% in menstrual phase, 27.3% in post ovulatory phase and 18.2% in pre-ovulatory phase, while married females express 50%, 30%, and 20.0% respectively in all the three phases. The significant ($p < 0.05$) result were recorded in menstrual phase by showing back pain, anxiety, breast pain, headache, depression, nausea, abdominal cramps, irritability and swelling in both married and unmarried women. While Diarrhea and vomiting found on-significant ($p > 0.05$). Constipation was additional significant factor present in married females. **Discussion** The present study among unmarried females and married females revealed that premenstrual syndrome (PMS) differs in each of three groups. Women of reproductive age either married or unmarried showing significant symptoms of PMS, however different phases have different percentage among these two groups. **Conclusion** According to our results, we concluded that in unmarried and married females, PMS were found frequently during menstrual phase and remaining two phases has no prevailing clinical manifestation.

Keywords

Premenstrual syndrome, menstrual phase, pre-ovulatory phase, post-ovulatory phase, PRISM calendar.

Introduction

Premenstrual syndrome (PMS) has been variously defined and known as a psycho-neuron-endocrinal disorder of unknown etiology that consists of a myriad of physical and psychological symptoms that occur in the one to two weeks before menstruation and subside a few days after menstruation¹. Premenstrual syndrome (PMS) is a

documented clinical problem since the earliest Greek Hippocrates blamed the agitated blood for shivering, lassitude and heaviness of the head. They explained how the disturbed blood found its way to the uterus where it escaped the body causing the relief of symptoms, the process of menstruation². The cause of PMS is unknown but the underlying mechanism is believed to

involve changes in hormone levels. Symptoms often vary between women and resolve around the start of bleeding. Common symptoms include acne, tenderness of breasts, bloating, feeling tired, irritability, stress, anxiety, increased emotional sensitivity and mood swing. This symptom is present for around six days and varies in severity; from mild to severe. About 80% of women report some symptoms prior to menstruation³. In Pakistan, there has been a limited work on Premenstrual Syndrome (PMS) because Pakistani women think that PMS is part of women's life so they should not complain about it. The PMS diagnostic criteria are based upon WHO's International Classification of Diseases (ICD-10) or the American College of Obstetricians and Gynecologists (ACOG) or Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)⁴.

Severe symptoms may be suffered by about 2-5% of reproductive females that undergo medical treatment⁵. In reproductive females, the ovarian cycle consists of three phases: follicular phase, ovulation phase, and luteal phase, whereas the uterine cycle consists of menstruation phase, proliferative phase, and secretory phase. The endocrine system controls both of the cycles, using contraceptives by married women disturb the hormonal system which interferes with normal reproductive cycles that causes interruptions in daily life activities⁶. The study was aimed to estimate premenstrual syndrome and its consequent symptoms in married and unmarried females during menstrual phase, pre-ovulatory phase, and post-ovulatory phase.

Methodology

A cross-sectional survey-based study was designed and conducted to compare symptoms of Pre-menstrual Syndrome in married and unmarried women in all three

phases of the menstrual cycle. The ethical clearance was obtained from the Institutional Review Board, university approval and patient consent was signed. Data collection was carried out during January 2016 to May 2016. Total 80 individuals of both groups were taken randomly of the age 25-35 years. Subjects under study having PMS were kept in group A while the healthy subjects having no PMS were kept in group B. In both of the groups, the number of subjects remains the same; 40 participants respectively. Subjects under age 25 and those who were on medicine were excluded from the study.

Data were collected using a specially designed PRISM calendar through which clinical manifestations during the whole cycle were recorded. As well as their socio-demographic details, past medical history, dietary habits and exercise habits were questioned. PRISM calendars were provided to each female and instructed them to fill it throughout the cycle for the following three months. Data were computerized into SPSS 16.0 software. Chi-square test was used to compare study parameters and PMS-related problems between those two groups.

Result

All the subjects under the study were between the ages of 25-35 years with the mean of 30 years. The data of participants was consisting of some parameters which were qualitative. The parameters include; back pain, abdominal cramps, anxiety, swelling, irritability, depression, headache, nausea, vomiting, constipation, diarrhea, and breast pain.

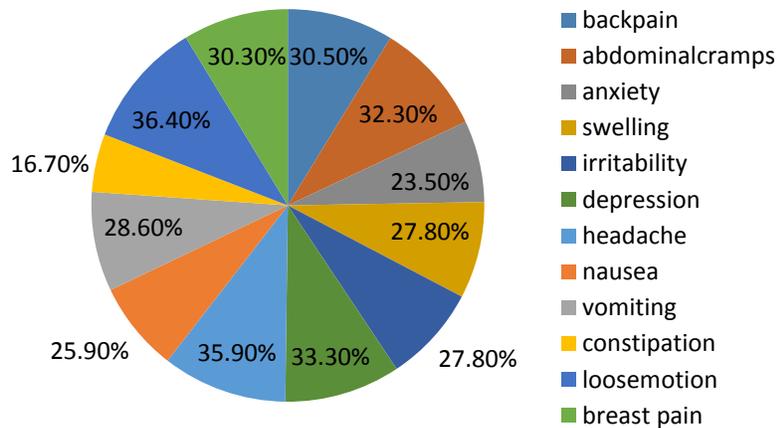
Results were analyzed by Chi-square test, study revealed that the severity of premenstrual syndrome among married and unmarried females were different. About 55% of unmarried females suffering from PMS

as compared to married females 50% in all three phase of menstrual cycle. Study revealed that unmarried females shows their symptoms 54.5% in menstrual phase ,

27.3% in post ovulatory phase and 18.2% in pre ovulatory phase , while married females express 50% , 30%, 20.0% respectively in all the three phases.

Figure 1 PMS Symptoms during Pre-Ovulatory Phase among Married and Unmarried Females. During pre-ovulatory phase, headache (60.2%), vomiting (40%), constipation (42.9%) and diarrhea (57.1%) were found to be significantly ($p < 0.05$) higher in unmarried females as compared to married females. However, other clinical signs and symptoms were significantly equal in both the groups (figure#1).

Pre-ovulatory Phase Among Married Females



Pre-ovulatory Phase Among Unmarried Females

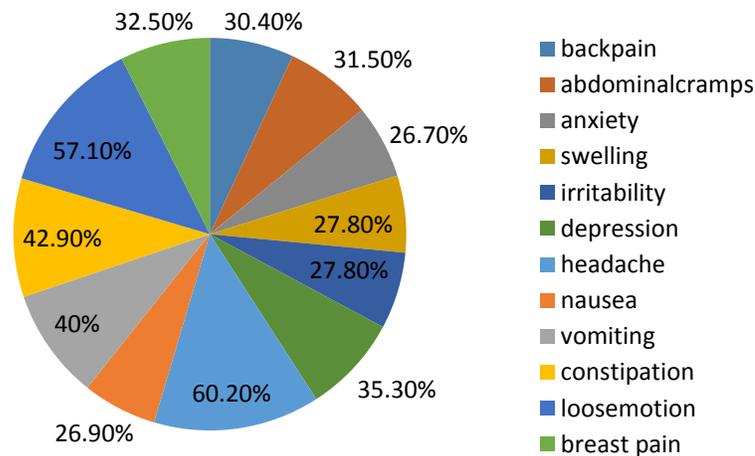
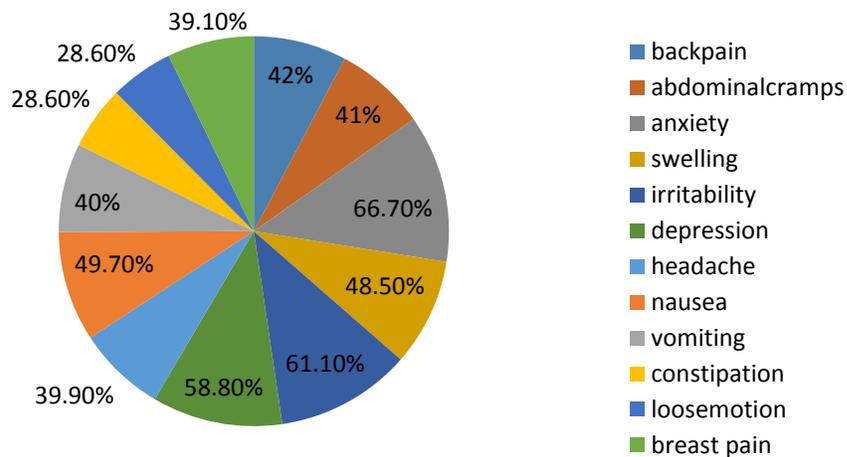


Figure 2 PMS Symptoms during Menstrual Phase among Married and Unmarried Females. During menstrual phase, anxiety (66.7%), diarrhea (28.6%) and vomiting (40%) were found to be significantly ($p < 0.05$) high in unmarried females as compared to married females. Whereas, constipation (61.1%) higher in married females as compared to unmarried females. Other PMS clinical manifestations were remained same in both the groups (figure#2).

Menstrual Phase Among Unmarried Females



Menstrual Phase Among Married Females

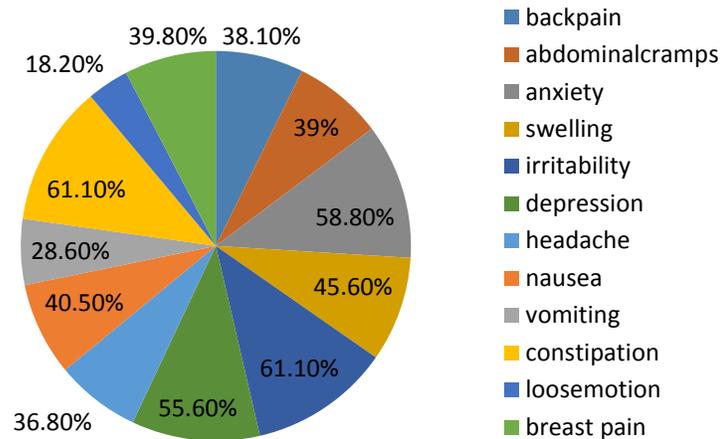
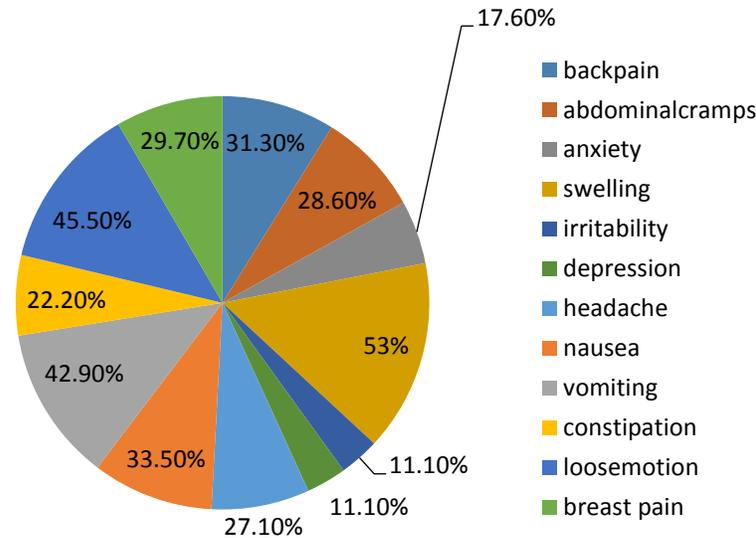


Figure 3 PMS Symptoms during Post-Ovulatory Phase among Married and Unmarried Females. During post-ovulatory phase, back pain (31.3%), anxiety (17.6%), swelling (53%), depression (11.1%), nausea (33.5%), vomiting (42.9%) and diarrhea (45.5%) were found to be significantly ($p < 0.05$) higher in married females as compared to unmarried females. However, headache (59.9%) and abdominal cramps (54.7%) were found to be significantly higher in unmarried females as compared to married females (figure#3).

Post-ovulatory Phase Among Married Females



Post-ovulatory Phase Among Unmarried Females

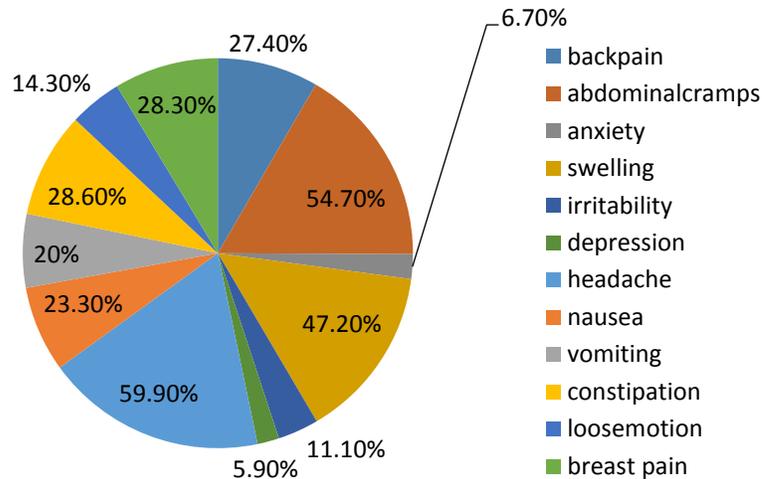


Table 1 Estimation of Parameters Causing of Pre-Menstrual Syndrome Among Married and Unmarried Females.

Parameters	Married females		Unmarried females		p-value
	N= 40	%	N= 40	%	
back pain	20	49.7	20	50.3	0.031*
abdominal cramps	20	49.2	20	50.7	0.034*
Anxiety	21	53.1	18	46.9	0.025*
Swelling	20	50.7	19	49.2	0.012*
irritability	20	50	20	50	0.023*
depression	21	51.4	19	48.6	0.035*
Headache	18	46.6	21	53.3	0.05*
Nausea	21	52.6	18	47.4	0.02*
Vomiting	23	58.3	16	41.7	0.06
constipation	28	72	11	28	0.2
Diarrhea	24	61.1	15	38.9	0.1
breast pain	20	51.1	19	48.8	0.01*

P-value<0.05 is considered as significant by using Pearson’s Chi-square test of independence.

Discussion

The present study among unmarried females and married females revealed that premenstrual syndrome (PMS) differs in each of three groups. About 55% unmarried females showed PMS during their reproductive life span; whereas, 50% married females exhibited PMS. Different studies revealed that, in pre-ovulatory phase symptoms were significantly higher in unmarried females as compared to married females⁷. During menstrual phase, the recording were similar as compared to pre-ovulatory phase, but constipation remained significantly higher among married females as compared to unmarried females. The results of post-ovulatory phase, presented that PMS were found to be significantly increased in married females as compared to unmarried females⁸. Chi-square results revealed that PMS including back pain, anxiety, breast pain, headache, depression,

nausea, abdominal cramps, irritability and swelling were found to be significant (p<0.05) among both married and unmarried females. But the frequency remained different among all the phases, in comparison of married and unmarried females, which disturb their daily physical activity levels. However, diarrhea and vomiting were found to be insignificant among both groups (p>0.05). Diet, physical exercise, use of contraceptives, depression may exacerbate PMS in both married and unmarried females⁹.

It is cleared from our study that women of reproductive age either married or unmarried showing significant symptoms of PMS, however different phases have different percentage among these two groups.

Conclusion

It was concluded that in unmarried and married females, PMS were found frequently

during menstrual phase and remaining two phases has no prevailing clinical manifestation.

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Conflict of Interest

There is no conflict of interest.

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