

Original Article

Menstruation; A Cause Of Recurrent Emotional Stress In Young Females

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Abstract

The event in the early & late proliferative period of the menstrual cycle can be experienced as physical, psychological, physiological & emotional indicators, sometimes it is well observed as premenstrual syndrome (PMS) among reproductive aged women, specifically characterized by emotional & physical symptoms that consistently occur during the luteal phase of the menstrual cycle. The purpose of our study was to determine the frequency and severity of occurrence of these characterizing symptoms as well as to compare these with PMS in young girls. We also investigated about the impact of these conditions on the quality of life. Women aged 17-35 years with pre-menstrual pain were recruited in the study. PMS related data was collected on record of severity of pain while emotional stress score were calculated by using Sadaf Stress Scale (SSS). According to our results 48% of these women reported sharp pain with 39% having pain in abdomen back and thigh region. According to SSS 26% lies in moderate emotional stress, 30% in mild and 11% in severe emotional stress. Those women having severe intensity of pain reported 80% moodiness, 60% irritability and 40% abnormal laughter. The present results showed consistent and strong relationship between PMS symptoms and level of interference in all domain of women's quality of life. We can conclude that PMS is the most common problem in women that distresses their educational performance and emotional well-being. There should be modified strategies for the detection and management of PMS on women for better quality of life.

Keywords

Sadaf Stress Scale, Premenstrual Syndrome, Emotional Stress, Pain

Introduction

Menstruation a reproductive cycle solely conducted & regulated by hormonal abrupt releases & fluctuations under the control of HPO-axis involving the glands and reproductive organs (Wilson, 1996; Norman, et al., 1997 and Messinis, 2006). During this 28days menstrual cycle body go through many physiological events (Grayce, 2014) results to develop several pre & peri-menstrual symptoms. The set of physiological, psychological & behavioral symptoms starts to appear just before the onset of menstruation & subside till the 3-4day of bleeding, termed as premenstrual syndrome 'PMS' (Govind, et al., 2007). PMS highly prevalent gynecological condition & according to a familiar study in Pakistan, reported high prevalence of PMS with varying intensities (Hashim, et al 2014) not only this, but numerous other researches conclusions also supports that PMS is highly prevalent as every female experiences at least 1-2 symptoms though the severity varies. Pandey, et al., 2013 concluded PMS with 100% of prevalence and according to many other studies the prevalence rate lies up to 95%in females vary with symptomatic severity (Khater, 2011) but only 2-5% suffers from severe symptoms. Recurrent long term encounter, a considerably significant factor to develop stress in young reproductive aged females suffering with PMS because any chronic trigger/stressor can develop stress response when exceeded its threshold (Chrousos, et al., 1992). Stress is a condition that develops when body faces circumstances (stressors) interrupting the chain of body's homeostasis cascade, triggers the stress response mechanisms to cope up

with the situation and bring the equilibrium back but in the mean while body must experience some characterizing symptoms of stress which intensity must be under the influence & potential of stressors. But the frequency & occurrence of stress symptoms are more likely to relate with the category of stress, the body dealing with at the time (Sadaf, 2014). Periodic menstrual cycle, with recurrent encounters of pre & peri-menstrual symptoms co-relate it with the chronic negative stress, as defined by (Sadaf, 2014) 'when a long term stressor Is present around for a phase or prolong period of life results in chronic stress that could be dangerous in many ways first, because of people get used to it and ignore this stress harming their mental and physical health secondly persistence pressure can lead to even more retarded health conditions.' The menstrual distressing PMS symptoms like pelvic pain & rest are potential stressors to develop emotional stress in menstruating females by establishing unpleasant & uncomfortable impacts reflect behavioral and emotional status develop characterizing symptoms of emotional stress in females during pre & peri-menstrual phase. The purpose of our study was to determine the frequency & severity of occurrence of menstrual characteristics symptom as well as to compare these with PMS in young girls. And also investigate its impact on their quality of life.

Methodology

A cross-sectional study design with sample size (N=100). The participants were selected from different fields like students, house wives & working women.

All selected subjects were healthy reproductive age females between 17-35 years of age & not diagnosed with any medical disease condition to make sure that all the reported symptoms were not due to any pathological condition but physiological menstrual distress. Both married & unmarried females were included in the study whereas, pregnant and menopausal women were excluded. Firstly a pre-questionnaire comprised of 20 questions was filled by every participants in which we asked basic information related to their menstrual cycle like age of menarche, cyclic regularity, blood flow, daily physical activity/exercise & other related questions. The pre-questionnaire was designed to focus on data collection related to PMS & symptoms, their rate of prevalence & its relating link with stress occurrence. An important criteria was set in order to get the most accurate answers, we asked the subjects to fill the questionnaire within first 3days of their menstrual cycle so that the participants can able to answer exactly according to that condition they were experiencing at that time. In the 2nd step for emotional stress evaluation we asked the subjects to fill the SADAF STRESS SCALE (SSS). In which 15 emotional stress associated symptoms are included. Participant rated the symptoms according to their experienced severity & frequency of occurrence. The data was analyzed by using SPSS method. SADAF STRESS SCALE (SSS): SSS is a tool for stress evaluation. It's a questionnaire type scale measures the various types of stresses in ages 14 and above. There are different associated symptoms provided in the scales for different 7 types of stress. For stress evaluation and intensity determination calculation & scoring are also provided. According to the scores the stress level were categorized as normal, mild, moderate and severe. By calculating the data according to formula & following the provided scoring in the SSS manual we can evaluate & score the level or intensity of symptoms from normal, mild, moderate & severe level of stress.

Results & Discussion

Our present study results positively establish a connection between chronic negative stressor (PMS) & emotional stress. Pelvic pain, one of the characterizing menstrual distress symptom is highly reported by females as shows in fig 1 the pain intensity during PMS reported by participating females.

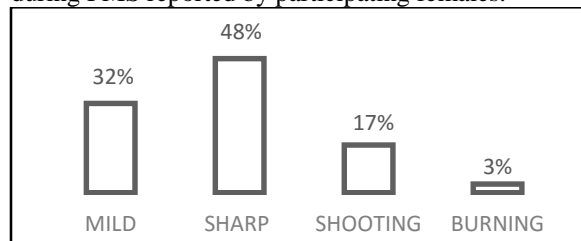


Fig 1: Pain intensity during PMS

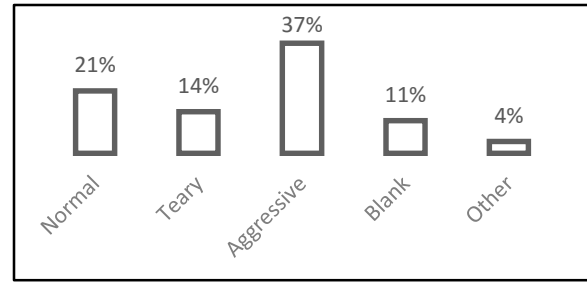


Fig 2: Mood changes during period

The pain prevalence as presented by our study result is 100% because every female reported with a certain type & intensity of pain. Sharp was most highly reported type of pain by 48% of females. PGs as hyper contractility & inflammatory cascade inducer consider to be the key factor behind the menstrual pain, cramps/bloating, MM, sleep disturbance and other GIT symptoms (Mannix, 2008; Baker, et al., and Bernstein, et al., 2014). With periodic PMS encounters the mood instability also monitored as females experience different sets of mood wavering during their cycle. Aggressiveness, the most reported mood change by 37% females whereas other mood were also reported by participant's considerable scale, as shows in fig. 2. The exact etiology of PMS is not known yet but due to its periodic appearance just after the leutal phase and probable aggravation with onset of menstrual flow relates PMS with the hormonal events involve the ovarian changes & corpus leutum formation consider an initiator to bring on the cyclic mood changes and symptomatic appearances that supported by, an ovulatory asymptomatic phase followed by ovulatory symptomatic phase (Govind, et al., 2007). Chronic negative stressor (PMS) with its repetitive encountering waves can potentially leads the body to swim into emotional stress because our study results shows that all the pain perceiving females endorse the emotional stress symptoms of SSS with high frequencies & varying intensities (Fig: 3).

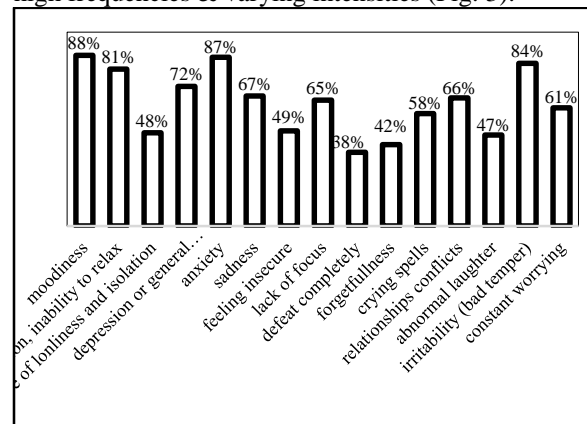


Fig 3: Frequency of emotional stress symptoms according to SSS reported by females

Hormonal fluctuations exclusively progesterone and estrogen consider core factor in PMS symptoms generation. Progesterone is a primary precursor in the biosynthesis of the adrenal corticosteroids impaired corticosteroid production results in a decrease in the ability to handle stress, e.g., surgery, trauma or emotional stress. If estrogen not maintained by progesterone peak it results in; irritable mood, bad temper, chronic fatigue and headache. Decreased estrogen also associated with negative mood swings ‘crying spells, anxiety, and depression’(Sellman, 1996) but there are many theories regarding to the etiology behind cyclic mood changes and physical symptoms related to PMS and an established statements still needed more explorations (Stearns, 2001 and Govind, et al., 2007).

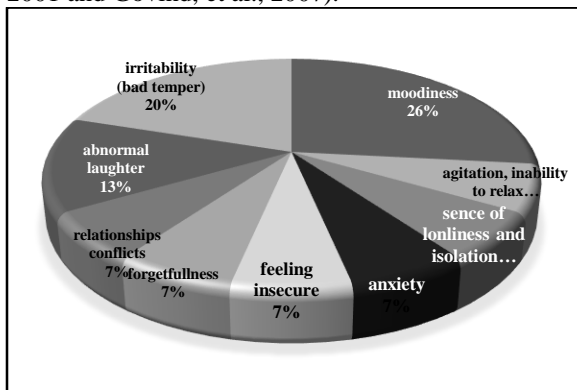


Fig.4: Frequency of emotional stress symptoms reported by females perceiving sharp pain

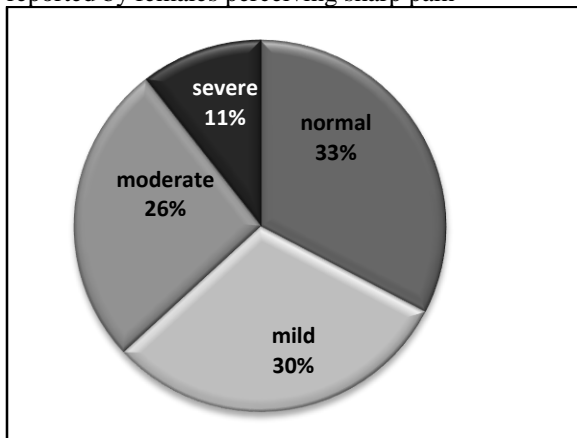


Fig 5: Severity level of emotional stress
PMS can cause severe physical and emotional disability when it gets severe or intense (Stearns, 2001 and Govind, et al., 2007) and if accompanied with dysmenorrhea(pelvic pain) can produce significantly intense emotional and physical stress symptoms ultimately leads the body towards more exertion producing profound physical and emotional stresses which also demonstrated by results of our study that those females reported with dysmenorrheal and PMS symptoms, also evaluated with severe , moderate, and

with mild emotional stress and along with this they also perceives emotional stress symptoms comparatively more frequent, evaluated with varying severity categorized on the basis of symptoms and their intensities the participants experienced (as shows in Fig: 4). Overall 67% females were evaluated with different stress severity level, which is a very considerable proportion that every female bearing a load of emotional stress of unlike burden. Along with this the rest of 33% female were also reported different PMS & emotional stress symptoms with slighter intensity so they placed in normal level of stress, as presented in fig: 5.

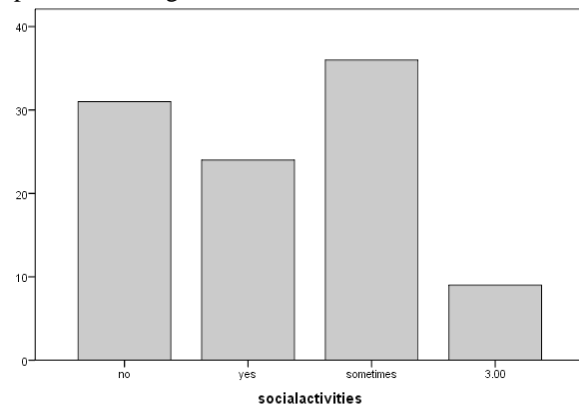


Fig. 6: Limiting social activities.

The figure showed that 45% reported that they limits their social activities during menstruation, 25% females reported that they always limit their social activities while 30% females reported that they don't limit/skip their social activities. This chronic stress also impacts the quality of life and capability to cope with routine activities as in our study significant number of participants reported that they always or sometimes skip their social/educational or interpersonal activities reflects the intruding effect of menstrual distress on quality of life.

Conclusion & Recommendation

Our research results demonstrate a very high prevalence rate of PMS in young adult females because a large proportion of participants reported characterizing symptoms of physical & emotional menstrual distress (PMS) & endorsed the theory that every women at least perceive 1-2 symptoms of PMS. We also evaluate 67% females with different severity level of emotional stress & the rest of population were also reported emotional stress symptoms but with slighter intensity & frequency. Hence it's a supportive study to suggest that these gynecological conditions profoundly stressed up the body physically and emotionally and continuous symptomatic alterations lead to hindrances in daily life. So we conclude that with recurrent pattern of menstrual distresses i.e.; PMS leading to physiological & psychological stress can

profoundly establish emotional stress symptoms in young adult females. We recommend that menstrual symptoms must get concerns to make timely detection possible if symptoms getting more intense or frequent because it's vital to adopt healthier management strategies & balance quality of life.

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