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A Review on Prevalence of Pre Menstrual Syndrome amongst College girls

Mrs. Prem Lata*
*Associate Professor in Physical Education (C.I.S.K.M.V. Fatehpur Pundri Dist. Kaithal (Haryana)

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Abstract

Pre menstrual Syndrome(PMS) is described as collection of physical, cognitive , affective and behavioral symptoms that occur cyclically during the luteal phase of the menstrual cycle and resolve quickly at or within few days of the onset of menstruation. Severe form of PMS is described as Pre Menstrual Dysphoric Disorder. The symptoms of PMS normally involves somatic as well as physical symptoms. Pre Menstrual Symptoms are experienced by upto 90% of women of child bearing age of all over the world including India and 10% are diagnosed as having premenstrual dysphoric disorder.PMS affects the daily life of menstruating women of any age; race; and part of world. A large population of India is also affected with PMS. This review will describe that how girls and females are effected with symptoms of PMS and this hinders them to tackle their daily activities.

INTRODUCTION:

Mary: "1 love it, 1 just love it because I feel it is like a cleansing."

Jackie: "Pain, and sometimes relief. It means I am not pregnant (laughter). Actually, creativity, vivid dreams as well."

God has created woman such that she plays the major role in the perpetuation of human race. Primary reproductive organs of woman are her ovaries. when a girl is born , her ovaries already contains about 400,000 immature eggs(which are known as ova). At puberty, the eggs start maturing, usually one ovum each month. The maturing of the ovum takes place roughly between two menstrual cycles. After maturing , it finds its way from ovary to the fallopian tube and ends up in the womb. Meanwhile the womb develops a thick , soft, velvety lining which is made up of blood vessels. This thick, soft lining in the womb is called endometrium. If an egg fertilized, it will be embedded in endometrium and continue its growth. But if no egg is fertilized, the endometrium is no longer needed and is shed or discarded. This process of discarding of endometrium is known as menstruation. So, it is very clear from this explanation that menstruation is a very normal biological process that ensures the perpetuation of the human race. (Silverthom, 2013)

After the birth of baby girl she is expected to be a wife and then a mother. God has gifted her natural phenomenon known as Menarche. Every girl undergoes this cycle. She has to undergo many physical & emotional challenges before the onset of this cycle. Sometimes these problems hinder a girl's day to day life.

Menstruation means monthly vaginal discharge of blood and cells from the uterine linings. This process usually last from 2 to 7 days in one cycle. During Menstruation, a woman undergoes many hormonal changes and becomes anxious during this phase of time. There occur many physiological changes in females from age of Menarche up to Menopause. (A Singh D. K., 2008). Girl has to face many problems during premensuration like dysmenorrhea, Premenstrual Syndrome, menorrhagia and irregular cycles.. (AR Edilberto, 2011)

Definition:

The diagonstic definition of PMS according to American College of Obestetricians and Gynecologists (ACOG): Symptoms must be present in five days before a woman's period for regular three mentrual cycles and must end within four days after the start of period. Premenstrual Syndrome is set of physical, emotional and behavioral symptoms which occur in last week of luteal phase (1 to 2 weeks before menstruation). These symptoms go away within 4 days after start of bleeding and don't start again until at least 13 days in the cycle. A girl begins to experience these symptoms at anytime during her productive years . After surfacing of symptoms, these remain constant until menopause, but can vary in intensity from cycle to cycle and individual to individual. However, studies show that over 80% of women suffer PMS and its severity is about 2 - 6% amongst women of reproductive age.(CN Soares, 2011)

According to DSM-IV Criteria Symptoms for PMS such as depressed mood, marked anxiety, marked affective labiality and decreased interest in activities have regularly occurred during the last week of luteal phase in most menstrual cycles. The symptoms once begin to remit within a few days of onset of menses (The follicular phase) and remain absent in the week following menses. Five of the following symptoms must have been present most of time during the last week of luteal phase and with at least one of the symptoms being one of the first four. : 1. Feeling sad , Hopeless or Self Deprecating 2.Feeling Tense, Anxious or on Edge 3.labiality of mood interspersed with tearfulness 4.Irritability, anger and interpersonal conflicts 5.withdrawal from social relationships 6.Difficulty in concentration 7.Fatigue 8.Carving foods, change in appetite 9.Insomnia 10.Out of control 11.Physical symptoms such as breast tenderness, weight gain, headache, tightness of clothing, shoes or rings, muscle pain. This pattern of symptoms must have occurred most of months during previous 12 menstrual cycles. Symptoms disappear completely after onset of menses. In menstruating females, the luteal phase means the period between ovulation and the onset of menses, the follicular phase begins with menses. (Diagnostic amd Statistical Manual of Mental Disorders (Fourth Edition) DSM-IV.

By area of 1950s, the list of symptoms had increased. Paper published in 1953 extended the list of symptoms and these were referred to as Premenstruation Syndrome.

PMS symptoms are a combination of two kinds of symptoms i.e. somatic and psycho-emotional symptoms. Some somatic symptoms are breast tenderness, headache, back pain, weight gain and bloating etc., some psycho-emotional and behavioral symptoms are depression, anger, confusion, restlessness, anxiety and loneliness. (CN Nisar, 2008)

Different surveys concluded that PMS characteristics range from 5% to 95% amongst women. Survey by magazine namely Woman's Own Magazine in 1993, 9 out of 10 women claimed to have suffered at least some of the symptoms. Women experience symptoms due to hormonal changes during menstrual cycle and it is also found that PMS is not limited to premenstrual period as it can extend to menstrual period as well.

Prevalance of Pre Menstrual Syndrome:

Many studies showed that PMS and Dysmenorrhea is an Important health problem and students from rural areas have severe or moderate dysmenorrhea which affects health related quality of life of students i.e. psychological status, social environment, work. Studies also concluded that PMS or dysmenorrheal decreases with increasing age.

A study conducted in USA concludes that 70% to 90% of women affected PMS during the child bearing age. But symptoms of menstruation can appear any time between puberty to menopause. About 30% to 40% of women have severe premenstrual syndrome interfering their daily routine activities. Study results showed that it is important for every woman to know all about PMS.

Results of several studies have shown that Premenstrual syndrome affects the health of adolescent girls. These observations or finding have drawn attention of medical fraternity towards its cure. Girls are found affected physically as well as psychologically during this phase of premenstrual syndrome. Keeping in view its large scale implication amongst women for atleast 20 to 30 years of theirs life cycle, it is an issue that needs to be studied which can make way for better ability to cope with premenstrual syndrome . More and more revelations about its implications on half population of this world need to be identified for betterment of physical as well as psychological health of girls and women alike.

Various studies show effects of Pre menstrual syndrome on health related quality life of woman. It has been also shown the adverse effects on inter- personal relationships with partners, family members as well as society.

A study was investigated on complementary and alternative medicine (CAM) therapies for obstetrical and other present therapies which were used by pregnant women. They selected 93 samples for trials. Out of 93, 45 were pregnant and other 13 suffering from dysmenorrheal and 33 were having premenstrual syndrome. Study results suggested low fat (Aman Z, 2005)diet, exercise, fish oil for dysmenorrheal and calcium, magnesium, vitamin B6, chaste, tree berry extract were other supplements recommended for Premenstrual syndrome. (Fredi, 2003)

A study was conducted in Karachi Pakistan to confirm the prevalence of Premenstrual symptoms in women in age group of 15-30 years. They selected 402 women for data collection. The sample was assessed with a checklist with 23 points. The results of study concluded that 98.8% of women were totally unaware about this syndrome. 79.9% of women were found affected with PMS. Results also showed that majority of women suffered with this problem without being aware of this syndrome. Rather PMS significantly affected their life. (Pal SA, 2011)

Researchers investigated a study in Saudi Arabia at a university in Dammam to assess the prevalence and predictors of Premenstrual syndrome of amongst college women. The number of students was 464. They were examined through a self report questionnaire. The sample was expected to identify frequency of symptoms during previous 6 months and 448 women students were found affected with at least one premenstrual symptom and 176 were found affected with severe premenstrual syndrome. It was also concluded that frequency and severity also associated with mental stress, less physical activity and more consumption of coffee and sweets. The researchers recommended for the women affected with severe PMS to practice relaxation techniques and psychotropic therapies. (Rasheed. P, 2003)

A study was conducted in UAE on schoolgirls and prevalence of premenstrual syndrome was 16.4% (n=115. Premenstrual syndrome had a moderate but significant negative impact ($p<0.001$) on the quality of life of affected girls, particularly school performance, social interactions, lifestyle, and emotional well-being. Difficulty in performing school functions and decrease in stigma were the two most adversely affected parameters. Prevalence and

impact of premenstrual syndrome in adolescent schoolgirls in the United Arab Emirates. (Rizk DE1, 2006)

A study was investigated on the topic "Evaluation and management of PMS and PMDD" to review premenstrual disorders, symptoms of PMS and treatment for PMS. They found that about 5% women were affected from Premenstrual Dysphoric Disorders (PMDD). They recommended that symptoms could be relieved with dietary changes and exercise. They also concluded that we could manage these symptoms by providing awareness education about PMS and women should include exercise in their life styles for relief from PMS. (Frackicwicz E.J, 2001)

A study conducted in university of Peshawar on young girls of college to find the frequency of Premenstrual Syndrome. They selected 384 samples for study. The sample filled a 29 items shortened Premenstrual Assessment form based on Moos Menstrual Distress Questionnaire for two cycles. It revealed from data that 53% of women suffered from PMS, 42% with mild symptoms, 18.2% with moderate and 31.7% were having severe symptoms. Common symptoms were body discomfort, anxiety, backache, depression and fatigue. Thus the results of study revealed that PMS is a common problem in young girls. (Aman Z, 2005)

A cross sectional study on topic "The effect of premenstrual symptoms on activities of daily life" was conducted in different countries by selected 4085 women in the age group of 14-50 telephonically in France, Germany, Hungry, Italy, Spain, United Kingdom, Brazil and Mexico for this study. It was found that physical and mental premenstrual symptoms affected quality of life. 35%of women in Europe and Latin America were found affected with moderate to severe PMS which disturbed their daily life activities. (Dennerstein, 2010)

A study was conducted to assess the burden of premenstrual dysphoric disorder on health related quality of life and results found that PMDD affects physical and mental aspects of health related quality of life. It was concluded that PMDD greater than chronic back pain, body pain and mental health scales. (Yang, 2008)

In Western Turkey conducted a study on "Prevalence of dysmenorrheal and its effect on quality of life among a group of female university students." They include 623 female students of Health High School, Damlupinar University, Kutahya. The severity was evaluated with a 10 point usual analog scale. The samples filled a short form (SF-36) for health related quality of life (HRQOL).. Results showed that Dysmenorrhea effects health related quality of life amongst female students. (Unsal Alaettin, 2010)

Prevalence of Pre Menstrual Syndrome in India :

In a research conducted in Gujarat(Anand) on Premenstrual Syndrome in Adolescents.1355 girls of in age group of 10 to 23 years were selected for this study. Premenstrual symptoms screening tool for Adolescents (PSST-A) questionnaire was used to assess PMS and Premenstrual Dysphoric Disorder (PMDD). It was also found that 95% girls were having at least one PMS symptom and 68.8% were having one symptom from moderate to severe PMS. 49.9% were having one or more physical symptoms and 89.8% were having more than one symptom. It was found that 37.1% affected their daily life activities due to PMS and 24.2% remained absent from school or colleges due to PMS. Stress was

found in 50% girls. Results predicted that Age, Weight, Stress also correlated with PMS. (SV Kamat, 2012)

In this research 200 women in the age group of around 40 years, who were attending Bhavan's SPARC Maitreyi's Health Care Programme (HCP) were selected for the sample. Out of 200 women, 107 were selected for final analysis. 35 symptoms of PMS were analyzed in this study. 41 women (38.3%) were found affected with 3 or more symptoms whereas 15 (14.0%) were having 5 or more cyclic symptoms. 5 women (4.7%) were found with severe symptoms. 11 women were seeking treatment for PMTS. (Pre Menstrual Tension Syndrome). The common symptom found that was Mastalgia or Breast Heaviness. They were also affected with anger and depression. (Joshi J.V., 2010)

Place of this study was Tertiary Care Hospital in Rural India (Wardha, Maharashtra). The samples were 118 students in the age group of 18 to 40 years, nursing students and staff members. 67% sample was observed with PMS symptoms, 10% with PMDD and 28.1% was marked with depressive symptoms. 46.4% of sample with depressive symptoms was found with major depression. (Susanta Kumar Pandhy, 2015)

Pragya Sharma conducted a study on menstrual related problems of Adolescent girls of slum area of Delhi. Study included 198 adolescent girls between age group of 13- 19 years having first menarche at least a year ago at the time of study. 67.2% were found affected with dysmenorrheal and 63.1% with one or more symptoms of PMS. 66.1% were found affected with other related problems. 66% sample missed social engagement, bed rest, sleeplessness and decreased appetite. 17.24% girls were absent from class and 25% had to abstain from their work. (Pragya Sharma, 2008)

Dr. Vinod Ramdasji investigated menstrual problems amongst rural school going adolescent girls of Amravati district, Maharashtra. They selected a sample of 435 secondary and higher secondary girl students in the age group of 12 to 16 years.17.9% of sample was having PMS. 81.3% girls were having abdominal pain, 28.5% with cramps, 11% uncomfortable, 6.6% suffered headache, 11.1% backache, 2.5% had depression. During menstruation, 3.4% girls did not have any symptoms of PMS. 62.3% girls reported dysmenorrhea as a common problem. (Wasnik VR, 2015)

In a study conducted at Indore, Madhya Pradesh India for 3months from June to August 2014 at total sample of 310 girls belong to same socioeconomic and dietary background and of same age group(18-25). It was found in study that dysmenorrhea was 84.2% and 15.8% were having no dysmenorrhea . Majority of girls reported PMS (91%). Symptoms were irritability(42.9%), leg cramps(40.1%), emotional instability (29.8%),fatigue (23.4%),dizziness(17.7%), breast pain(16.3%) and anxiety(10.3%). (Tulika Joshi, 2015)

CONCLUSION:

Reviews in present study show a high prevalence of PMS as well as Dysmenorrhea amongst girls as well as females which requires attention. The young college students are the future of the nation and their health is of prime importance. Spread of knowledge regarding premenstrual syndrome is sure to prepare adolescent girls towards negating its ill effects. Hence the researcher is making an effort to highlight the prevalence of Pre Menstrual Syndrome amongst girls and females. An effort should be made to educate girls

regarding identifying Pre Menstrual Syndrome. Health education and appropriate treatment should be provided to the effected girls and females. Further extensive studies are recommended for the treatment of PMS and Dysmenorrhea.

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