Menstrual Cycle Effects on Mental Health Outcomes: An Ethnographic Study

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ABSTRACT. Menstruation causes the body to go through a cycle of changes each month. Premenstrual syndrome, or PMS, is the term used to describe the variety of symptoms that many women experience in the weeks before and during their periods. Some women do not at all suffer from PMS symptoms. However, some women's symptoms may be crippling. We, therefore, examined the relationship between menstruation and mental health in this study and how one person can help the other. According to the current study based on a qualitative approach, 9% to 17% of women experience irritability, upset, or anxiety during their periods. Women report sleeping issues of 6% to 11%, mood swings of 9% to 16%, and bloating and pain of 9% to 16%. Between 8% and 15% of women get headaches around menstruation. Depression and period anxiety are both very typical. Premenstrual syndrome frequently includes these symptoms (PMS). Physical, emotional, and behavioural symptoms known as PMS are present during the premenstrual stage of the cycle and disappear once the period starts. In addition to food cravings, headaches, Mood swings, social withdrawal, exhaustion, and sore breasts, PMS can also cause sadness before and during periods. However, premenstrual dysphoric disorder may be to blame for significant depression before or during periods (PMDD).

Keywords: Anxiety, Depression, Premenstrual dysphoric disorder, Premenstrual syndrome, Women

1 INTRODUCTION

The menstrual cycle is presumed to exert a powerful influence on the behaviour of women. The highest incidence of psychiatric admissions, 49% of acute medical and surgical hospital admissions, and a higher rate of suicide attempts on the four premenstrual and four menstrual days than on comparable days in other parts of the month were all noted by Dalton (1964) [1], who studied the effects of the menstrual cycle on female behaviour. Dalton also discovered that the four premenstrual days and the four menstruation days are when 45% of female industrial workers call in sick. According to Parker, 62% of the violent offences perpetrated by female prisoners occurred during premenstrual week (1960). According to research by Janowsky (1969) [2], mental patients' manic, catatonic, and schizophrenic symptoms worsened throughout the premenstrual and menstrual phases. Many women experience mood swings throughout the menstrual cycle, with the effects being most pronounced during the premenstrual phase (Parker, 1960a) [3]. Many females experience depression or irritability. Headache, backache, nausea, and oedema are physical complaints that often go hand in hand. Premenstrual tension or premenstrual tension syndrome are terms used by gynaecologists to describe the condition in some women due to the severity of these physical and emotional changes (Parker, 1960b). The presenting complaint is psychological more often than physical symptoms (Perr, 1958) [4].

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2 Causes of depression during periods

The exact mechanism by which PMS leads to depression is unknown, it is likely related to the hormonal changes that take place during the second half of the menstrual cycle, the central nervous system's sensitivity to reproductive hormones, genetic factors, and psychosocial factors like stress [5]. Serotonin levels can be impacted by variations in progesterone and oestrogen levels. A chemical called serotonin helps control mood, sleep patterns, and hunger. Low serotonin levels can cause PMS symptoms like moodiness and irritability, odd food cravings, and difficulty sleeping [7]. Along with these signs and symptoms, depression during the menstrual cycle may also have:

- a. Anxiety
- b. Increased anger
- c. Forgetfulness
- d. Increased crying
- e. Absentmindedness
- f. Decreased libido
- g. Sleeping too little or too much
- h. Eating too little or too much
- i. Nausea and
- j. Tiredness or fatigue1

The present study is keeping aim to explore the link between menstruation and mental health and how can one support itself or another. Below the Premenstrual syndrome (PMS) will be explored by using a pie chart.

3 Premenstrual syndrome (PMS)

Everyone is different when it comes to PMS. The severity of symptoms can also vary from one month to another. Some of the most common symptoms include:

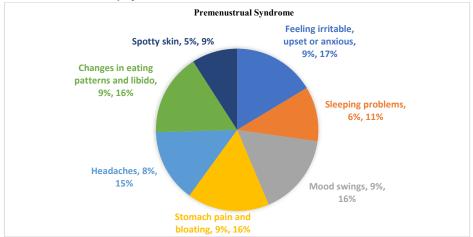


FIGURE 1-Source: Prepared by the researcher

The above chart is depicting the percentage of issues that women are facing during the mensuration period. Women with 9% to 17% are feeling irritable, upset or anxious during their mensuration period and 6% to 11% are facing sleeping problems. 9% to 16 % of mood swings, and 9% to 16 % of women are facing stomach pain and bloating. 8% to 15% of women are facing headaches, while 9% to 16% are facing changes in eating patterns and libido. And 5% to 9 % are facing spotty skin issues. These symptoms are common and normal, yet they can still disrupt mental health. But when women will gain awareness of the symptoms and how they show up for or can take steps to manage them. Below the link between Premenstrual syndrome (PMS) will be explored:

nptoms and depression du	ring menstrual period. Retrieved from; http:	s://flo.health/mens	Tension/ anxietyHopeless-nessFatigue	d-pmdd/pms-
	2		IrritabilityMarked angerExtreme	



FIGURE 2-Source: Prepared by the researcher

The above figure is depicting the link between Premenstrual syndrome (PMS) and depression symptoms among women during such days. As mentioned above in such a condition (Premenstrual syndrome) the women are facing many additional health-related issues such as feeling irritable, upset or anxious, sleeping problems, mood swings, stomach pain and bloating, headaches, eating patterns, libido, spotty skin issues and so on. It does not end up there only, but creates depression symptoms among women as well, for example; tension/ anxiety, hopelessness, fatigue, irritability, marked anger, extreme moodiness, being overwhelmed, trouble concentrating, crying spells and so on.

4 Premenstrual Dysphoric Disorder (PMDD)

Some women may occasionally experience particularly severe PMS symptoms; this condition is referred to as PMDD. Headaches, binge eating, rage, despair, and in some cases, suicidal thoughts are all signs of PMDD. PMDD can significantly affect your day-to-day life. Therefore, there needs to be a remedy for these additional problems that women experience during their menstrual cycles. Due to PMDD, depression may also get worse during the menstrual cycle [8]. While PMS and PMDD share many similarities, PMDD has more severe symptoms. Extreme depression is frequently reported by those with PMDD both before and during their periods. In their reproductive years, approximately 30% of people who have periods experience PMS, and between three and 8% develop PMDD. Premenstrual syndrome and depression are frequently present together. In about half of those receiving PMS therapy, anxiety or menstrual depression also coexist. But the topic of whether depression affects the menstrual cycle emerges. Missed or irregular menstruation might result from depression. Hypothalamus activity is decreased during times of stress or depression. Ovarian dysfunction can result from a hypothalamic disorder since the hypothalamus is the area of the brain that regulates the pituitary gland, which in turn regulates the ovaries [9]. Ovulation and estrogenic production may be impacted by ovarian dysfunction. Ovulation may be interrupted or delayed when the ovaries are not functioning normally [10]. Period irregularities or missing periods could come from this. Additionally, secondary amenorrhea is the absence of periods for three months or longer without pregnancy. Functional hypothalamic amenorrhea is the term used to describe amenorrhea brought on by depression and ongoing stress.

5 Signs of Severe Depression during Menstrual Periods

Premenstrual dysphoric conditions can cause significant depression in women before and during menstruation (PMDD). PMDD is comparable to PMS, however, it is more severe and occasionally incapacitating. Extreme mood swings brought on by PMDD might interfere with a woman's daily activities, interpersonal connections, and career. The majority of the time, symptoms begin a week before menstruation and last during the first few days of the period. Other PMDD symptoms and indicators, besides extreme depression before and during periods, include:

- a. Tension or anxiety
- b. Feeling out of control or overwhelmed
- c. Extreme moodiness and marked anger or irritability
- d. Mood swings and social withdrawal
- e. Sudden tearfulness or sadness
- f. Hopelessness with extremely negative thoughts
- g. Trouble concentrating

h. Problems sleeping2 and so on

6 Coping with Depression on One's Menstrual Period

Making some alterations to their way of life and taking particular medications may help the women manage their depression throughout their period. Keep track of the symptoms throughout the various menstrual cycle phases in addition to tracking them. This could aid the women in figuring out whether their depressive symptoms are related to their menstrual cycle. When women want to talk about depression before and during periods with the healthcare professional, having a thorough log of symptoms from the previous few menstrual cycles can be helpful. It could be simpler to describe the women's symptoms to a healthcare professional if they are thoroughly documented. Make careful to take note of the following symptoms while keeping track of your depression before and during periods:

- 1. Sadness
- 2. Crying spells
- 3. Anxiety
- 4. Irritability
- 5. Loss of appetite
- 6. Food cravings
- 7. Sleeplessness or insomnia
- 8. Trouble concentrating
- 9. Lack of interest in daily activities
- 10. Lack of energy, tiredness

7 Tips for Supporting Mental Health during Menstrual Cycle

If a woman experiences PMS or PMDD around the time of her menstruation, it can be frustrating. The symptoms may influence daily activities, employment, and interpersonal connections. Keep in mind that you are not alone. If women can discover the right tools, they may be able to improve their mental health by their menstrual cycle. The following recommendations are essential for easing the additional health problems that women experience during their periods.

Vitamins and supplements

Before and during periods, several vitamins may help ease the symptoms of depression. A calcium supplement may lessen PMS-related fatigue, altered appetite, and depression, according to recent studies. Milk, cheese, yoghurt, fortified cereals, orange juice, and leafy green vegetables are excellent sources of calcium. Another method to consume enough calcium is through a daily calcium supplement.

Lifestyle Changes

The following lifestyle adjustments can be made by women to lessen the signs and symptoms of depression before and during periods:

- Exercise: Make an effort to move your body for at least 30 minutes most days of the week. Even taking a
 regular stroll in the neighbourhood can help with symptoms of fatigue, attention problems, and period
 depression.
- Nutrition: Make an effort to withstand the frequent cravings that come with premenstrual syndrome.
 Excessive consumption of sugar, salt, and fat can be depressing for certain people. Women should balance these items with vegetables, whole grains, and fruits rather than fully avoiding them. Reducing caffeine intake, giving up smoking, and avoiding alcohol can all assist with premenstrual and menstrual depression symptoms.
- Sleep: Get at least seven to eight hours of sleep every night, especially the week or so before the onset of your
 period. Depression during the time frame could get worse if you do not get enough sleep.
- Stress: Excessive stress can sometimes make depression symptoms worse. You may quiet your body and mind
 by practising deep breathing exercises and relaxation techniques like mindfulness. as possible, stay away from
 stressful or emotional stimuli.
- Medicine: Taking an antidepressant prescription may help alleviate the depression before and during periods if
 other treatment options are ineffective. Selective serotonin reuptake inhibitors³ (SSRIs) are the most used

²Mental health during premenstrual dysphoric disorder (PMDD). Retrieved from; https://flo.health/health-activities/mental-heath/stress-and-anxiety/mood-sswings

³ Medicines used for the treatment of depression: https://flo.health/menstrual-cycle/health/anxiety-depression-during-period

antidepressant medications used to treat depression before and during periods. Serotonin levels in the brain rise as a result of SSRIs' ability to prevent serotonin absorption.

8 Finding Support

The gynaecologist may be able to help if the symptoms of depression during and before the menstrual cycle become overpowering. The International Association for Premenstrual Disorders, which provides online forums, blogs, and local resources that may assist in locating a medical professional experienced in treating PMS, PMDD, and depression during periods, is another resource the ladies can use. It is crucial to get help if a woman experiences severe depression before and during her period, which results in suicidal thoughts. A suicide or crisis prevention helpline might be quite beneficial if you are unsure of who to call. A majority of people experience depressive and anxious symptoms both before and during their periods. It might be a PMS symptom. Although the precise reason for PMS-related sadness is uncertain, it may be brought on by sensitivity to hormonal changes in the second part of the menstrual cycle. In addition to PMS, premenstrual dysphoric disorder (PMDD) and premenstrual exacerbation of pre-existing depression may cause symptoms of depression before and during periods. Missed or irregular menstruation might be a result of depression. Extreme mood swings, severe depression before and during periods, and even suicidal thoughts have all been linked to PMDD. Antidepressants and lifestyle changes can frequently help manage the symptoms of depression before and during periods.

The more important thing to mention, is about sexual intercourse during Mensuration. Some people had some misconceptions about sexual intercourse during mensuration and are calling it an injustice to women when it has been banned to do so. Especially Islam, Christianity, and Judaism are completely apposing to having sexual intercourse during menstruation. For example; The Holy book of Quran-e-Kareem clearly states the reason for this prohibition, which is that menstruation is Adha (a harmful thing). Allah says in Quran in Surah Al-Baqarah, verse 222: "They question thee (O Muhammad) concerning menstruation. Say: It is an illness (a harmful thing), so let women alone at such time and go not in unto them till they are cleansed." (Al-Baqarah: 222). Therefore, to connect the critique of the above 'world religions' on sexual intercourse during mensuration with scientific findings. As Dr Muhiy al-Deen al-'Alabi said, "It is essential to refrain from having intercourse with a menstruating woman because doing so leads to an increase in the flow of menstrual blood because the veins of the uterus are congested and prone to rupture and get damaged easily. Also, the wall of the vagina is susceptible to injury, so the likelihood of inflammation is increased, which leads to inflammation in the uterus and the man's penis, because of the irritation that occurs during intercourse. A man and his wife are often denied of their sexual intercourse with a menstruating woman because of the presence and the scent of blood which may make a man uninterested in sex". Therefore, the major drawback to having sex during periods is the possibility of spreading an STI like HIV or hepatitis⁴. These viruses are bloodborne and can be transmitted by coming into touch with menstrual blood that has been tainted. Additionally, two other infection types can result from sexual activity: STIs and issues brought on by modifications in the normal vaginal flora, such as yeast infections and bacterial vaginosis. Additionally, vaginal-penile intercourse can spread yeast infections and irritate the penis's head. Balanitis⁵ is the name of this illness. There are 20 million new STD cases annually in the US (United States), according to the Center for Disease Control and Prevention (CDC) Trusted Source⁶.

9 METHODOLOGY

An explorative research method was used to identify the problems under study. The present study is based on the primary sources of data gathered by the researcher. Purposive-participatory sampling techniques were used to select the sample of the study.¹¹ A qualitative approach was used to conduct the study¹². The ethnographic tools; interview transcript was prepared and verified by the experts to be conducted with the focused group method.¹³ Observations were also used as an ethnographic tool.^{14,15} For analysis, all the recordings were transcribed by the researcher, and themes were generated based on the content collected from the key-informants of the study.

10 DISCUSSION

⁴ Having sex during period is the risk of passing on a sexually transmitted infection https://www,healthline.com/health/sexually-transmitted-desease/women

⁵ Problems caused by changes in normal vaginal flor. Retrieved from; https://www.medicalnewstoday.com/articles/321667#is-it-safe

⁶CDC report retrieved from; https://www.cdc.gov/nchhstp/newsroom/docs/factsheets/std-trends-508

It is not fair to say that all women are facing the same issues during PMS or PMDD but all the issues whatever or however different from others, are all very disturbing and result in mental health issues. And all the issues usually end up with different kinds of depression symptoms in women during the days of PMS or PMDD. As mentioned earlier during this time (Premenstrual syndrome or PMDD) the women are facing many additional health-related issues such as feeling irritable, upset or anxious, sleeping problems, mood swings, stomach pain and bloating, headaches, eating patterns, libido, spotty skin issues and so on. It does not end up there only, but creates depression symptoms among women as well, for example; tension/ anxiety, hopelessness, fatigue, irritability, marked anger, extreme moodiness, being overwhelmed, trouble concentrating, crying spells and so on. The above mentions issues are sometimes creating misunderstandings in relationships as well, especially in married relationships by resulting in separation (divorce).

11 CONCLUSION

By coming up to conclusion, the above study explored an important subject, is the link between menstruation and mental health and how one support can itself or another. The study has explored the additional health issues that women are facing during their periods but are unknown to many people which later results in distance in relationships. A woman needs a good understanding as well as social support from family and friends. And many studies had found that women are facing less interest towards intercourse during periods which also results in irritation in men against them. Therefore, the spouses should be supportive as well as cooperative towards their women. Most importantly the major drawback to having sex during periods is the possibility of spreading an STI like HIV or hepatitis. These viruses are bloodborne and can be transmitted by coming into touch with menstrual blood that has been tainted. Additionally, two other infection types can result from sexual activity: STIs and issues brought on by modifications in the normal vaginal flora, such as yeast infections and bacterial vaginosis. Additionally, vaginal-penile intercourse can spread yeast infections and irritate the penis's head. Balanitis is the name of this illness. There are 20 million new STD cases annually in the US (United States), according to the Center for Disease Control and Prevention (CDC) Trusted Source. The study has provided some measures to help women to control as well as reduce the symptoms of depression during their menstruation cycle.

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13 REFERENCES

- [1] Dalton, K. The influence of menstruation on health and disease (1964).
- [2] Janowsky, D. S. et al. Premenstrual-menstrual increases in psychiatric hospital admission rates. *American Journal of Obstetrics and Gynecology*, 103(2), 189-191.
- [3] Baker, A. H., Mishara, B. L., Kostin, I. W., & Parker, L. (1979). Menstrual cycle affects kinesthetic aftereffect, an index of personality and perceptual style. *Journal of Personality and Social Psychology*, 37(2), 234.
- [4] Perr, I. N. Premenstrual Tension, Medicine and Law. Clev.-Marshall L. Rev., 7, 52 (1958).
- [5] Kothari, B. Perception about menstruation: a study of rural Jaipur, Rajasthan, Indian Anthropologist, 2010, 40(1):43–54.
- [6] Malhotra. A. et al. Factors associated with knowledge, attitudes, and hygiene practices during menstruation among adolescent girls in Uttar Pradesh, Waterlines, 2016, 35(3):277–305, http://dx.doi. org/10.3362/1756-3488.2016.021.
- [7] Sarkar, I. et al. Determinants of menstrual hygiene among school-going adolescent girls in a rural area of West Bengal, Journal of Family Medicine and Primary Care, 2017, 6(3):583–588, https://dx.doi.org/10.4103/2249-4863.222054.
- [8] Deshpande TN et al. Menstrual hygiene among adolescent girls: a study from the urban slum area, Journal of Family Medicine and Primary Care, 2018, 7(6):1439–1445, http://dx.doi.org/10.4103/jfmpc.jfmpc_80_18.

- [9] McSherry, B. The return of the raging hormones theory: Premenstrual syndrome, postpartum disorders and criminal responsibility. *Sydney L. Rev.*, 15, 292.
- [10] Eijk, A.M et al. Menstrual hygiene management among adolescent girls in India: a systematic review and meta-analysis, BMJ Open, 2016, 6(3):010290, http://dx.doi.org/10.1136/bmjopen-2015-010290.
- [11] Dua, K., Wadhwa, R., Singhvi, G., Rapalli, V., Shukla, S.D., Shastri, M.D., Gupta, G., Satija, S., Mehta, M., Khurana, N. and Awasthi, R., 2019. The potential of siRNA based drug delivery in respiratory disorders: Recent advances and progress. *Drug development research*, 80(6), pp.714-730.
- [12] Chhikara, N., Kour, R., Jaglan, S., Gupta, P., Gat, Y. and Panghal, A., 2018. Citrus medica: nutritional, phytochemical composition and health benefits—a review. *Food & function*, 9(4), pp.1978-1992.
- [13] Chawla, R. and Sharma, S., 2017. Molecular dynamics simulation of carbon nanotube pull-out from polyethylene matrix. *Composites Science and Technology*, 144, pp.169-177.
- [14] Chaudhary, A. and Singh, S.S., 2012, September. Lung cancer detection on CT images by using image processing. In 2012 International Conference on Computing Sciences (pp. 142-146). IEEE.
- [15] Ahmadi, M.H., Baghban, A., Sadeghzadeh, M., Zamen, M., Mosavi, A., Shamshirband, S., Kumar, R. and Mohammadi-Khanaposhtani, M., 2020. Evaluation of electrical efficiency of photovoltaic thermal solar collector. *Engineering Applications of Computational Fluid Mechanics*, 14(1), pp.545-565.