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PREVALENCE OF PRE-MENSTRUAL DYSPHORIC DISORDER (PMDD) AMONG EARLY ADULTS OF SOCIAL WORK STUDENTS IN CHENNAI

Aarathi UnniKrishnan. C.¹, Sathyamurthi Karibeeran²

¹ Student,²COE & Assistant Professor,
Department of Social Work (Aided)
Madras School of Social Work, Chennai, India

Abstract: Introduction: Premenstrual dysphoric disorder (PMDD) is a cluster of emotional, and physical symptoms PMDD is a more serious and severe premenstrual condition that affects about 5% of women during their reproductive years. Although PMDD, like PMS, may include physical symptoms, it always involves a worsening of mood that interferes significantly with the woman's quality of life. A severe form of PMS is known as a premenstrual dysphoric disorder (PMDD). Aim and objectives: The study was aimed to assess the prevalence of PMDD among early adults of MSSW and also to identify the effect of education qualification, BMI range, effect of eating habits such as intake of meat, skipping meals and consumption of fried food, with PMDD. Materials and methods: The study was conducted at Madras School of Social Work, Chennai a total of 72 students were analyzed with a simple random sampling method. Data was analyzed using SPSS 20.0 version. Results: The result of the study showed that education qualification, i.e.) post graduates have positive significance with the PMDD indication. It is evident that certain disparities in the eating habits also have contribution to those respondents who has indication of PMDD. Conclusion: Premenstrual dysphoric disorder (PMDD) is a severe problem with women of reproductive age, which may have contribution to the physical and the emotional experiences of the women, together with similar symptoms appearing in severe form compared to PMS. The effect of changed lifestyle, food habits, and education has impact on the menstrual disorders, including Premenstrual dysphoric disorder. The aim of the study is to analyze prevalence of PMDD and the association with the above said factors.

Keywords: Premenstrual Dysphoric Disorder, Eating Habits, BMI Ranges, Education Qualification, Lifestyle

I. INTRODUCTION

Menstruation is very important in women's reproductive health. Menstruation is due to cyclical hormonal changes in the female, under the control of the hypothalamic-pituitary-ovarian axis. The onset of menstruation in adolescent girls is an important developmental milestone and it has evidence of fully developed reproductive ability. It is a periodic discharge of blood from uterus, which takes place approximately at regular monthly intervals during the effective reproductive years of a woman. The age of onset of menstruation is generally between 11 years and 15 years. Menstrual disorder is a common problem among females that appears during their propagative age. After menarche, female adolescents encounter many common menstrual characteristics such as irregularities in the menstrual cycle, premenstrual pain, premenstrual syndrome, dysmenorrhea, prolonged menstrual bleeding, and emotional disturbances which can affect the health of the adolescent. 75% of girls experience some problems associated with menstruation. The characteristic feature and the menstrual abnormalities of the adolescent thus vary across globe. These are considered to be vary across the age, marital status, lifestyle, food habits, stress, employment, social relationships, and so on. Since ancient times the premenstrual problems with mood and behavior have been acknowledged. Hippocrates first described the "agitations" in women and how "agitated blood" found its way from the head to

the uterus, where it escaped the body a simple tool for diagnosis of the clinically significant premenstrual syndrome. Menstrual disorders configure a vital role in the adolescent and reproductive, but most of these issues are still unearthed. Thus it is necessary to provide adequate attention and care to these folks. The end result of this casualness will be an excessive threat to the future and the older women of the present generation with weakened reproductive and sexual health.

Premenstrual disorders consist of symptoms that develop within the luteal phase of the menstrual cycle, i.e.) psychiatric and somatic symptoms which affect the patient's normal daily functioning. Compared to other disorders, these premenstrual disorders differ as they firmness decreases abruptly after menstruation. The luteal phase begins after ovulation and ends with the start of menstruation [1]. Unlike PMS, PMDD is a more serious and severe premenstrual condition that affects about 5% of women during their reproductive years. Although PMDD, like PMS, may include physical symptoms, it always involves a worsening of mood that interferes significantly with the woman's quality of life. In advance, during the days prior to her periods, a woman with PMDD mostly emotional and physical experiences, that include moodiness, anger, anxiety, hopeless, feeling overwhelmed etc. Which seems out of control to her? These symptoms may cause her to withdraw herself from the social activities and relationships, such as friends, relatives etc. that will be usually found during the days before her periods [2].

REVIEW OF LITERATURE

The literature searches related to the current study showed many researches. A study finding showed that most of the adolescent girls had irregular menstruation, dysmenorrhea, and other related menstrual issues. Among these girls, the other symptoms and the problems are also prominent. The study also throws importance of the health education regarding the menstrual problems and its management which could help the prevention of various gynecological complaints that occur in their future life [3]. Whereas, another study [4] researched on the PMDD analysis of various parameters like BMI, the age of menarche, duration of menstruation, etc. found that only the age of menarche had some bearing on the presence of PMDD. Among the respondents of this study they showed lack of energy/fatigue followed by anger in two third of the respondents. They also had overwhelmed feelings, or out of control and food cravings/overeating, but were least reported symptoms [5]. In their study showed that female with dysmenorrhea were significantly affected in their school activities than those without physical symptoms such as abdomen pain during menses. Comparatively, female students with dysmenorrhea reported depression than those without dysmenorrhea. The collective effects of menorrhagia on school activities and female students' psychosocial relationship revealed as a main factor affecting their daily school activities and relationship with peers and colleagues. A study on the female undergraduates in Nigeria has demonstrated a strong and significant association between academic stress and menstrual disorders and is consistent with studies within and outside Nigeria [7]. Another study on the association between eating of junk foods, skipping of breakfast on menstrual cycle of respondents, but there was no significance found in the study [8]. A study on Prevalence of premenstrual syndrome and premenstrual dysphoric disorder among college students of Bhavnagar, Gujarat, showed the prevalence of PMS as very meager and similarly the moderate and severe PMS. Among that the PMDD was very slight. It also reported the usual symptoms such as "fatigue/lack of energy," "decrease interest in work," and "anger/irritability." Among the School/work efficiency or productivity, Relationships with friends, classmates/co-workers Relationship with your family, Social life activities and Home responsibilities, the most common practical impairment item was "school/work efficiency and productivity [9]. Women with confirmed PMS reported expressively lower quality of life, increased absenteeism from work, decreased work productivity, impaired relationships with others and increased visits to health providers, compared with others. The researchers also reported an absenteeism rate and reduction in productivity. The economic burden associated with PMDD is more related to self-report decreased productivity than to direct health care costs. However, women with PMDD do report increased health services use, with visits to health care providers and use of prescription medications and alternative therapies [10].

Small studies of women with prospectively confirmed PMDD have also reported decreased interpersonal and work functioning and reduced quality of life in comparison with women without PMDD [11-13]. Larger studies of women diagnosed retrospectively according to PMDD criteria have also reported substantial functional impairment in work and interpersonal roles [14]. Another study on the Premenstrual Syndrome: Nutritional and Alternative Approaches, reported that in addition to many other factors, the psycho-social factors play an important role. There is no single deficiency or excess of a particular nutrient, hormone or neurotransmitter can explain all cases of premenstrual syndrome. As a result of the complexities involved, drug treatment which depends on a single-etiology/one-treatment mentality has not met with consistent success. Another approach which combines diet and lifestyle changes, along with the administration of specific nutrients and vegetables, has the ability to affect several systems in the body simultaneously and is the logical and most effective way to approach the treatment of PMS [15]. Junk foods being deficient in micronutrients like vitamin B6, calcium, magnesium and potassium might be responsible for triggering premenstrual symptoms, and has a significant association between irregular menstrual cycles, abnormal flow, dysmenorrhea and PMS with frequent consumption of junk food, found an association between fast food consumption and dysmenorrhoeal. Frequency of fast food intake was significantly associated with dysmenorrhoeal [8].

II. OBJECTIVES

This study was designed to survey and determine the prevalence of premenstrual dysphoric disorder among the early adolescents of MSSW, and also to study the effect of education status, BMI range, intake of meat, skipping meals and consumption of fried food.

1. To determine the prevalence of PMDD among early adults of MSSW.
2. To identify the effect of education qualification and BMI range with PMDD.
3. To identify the effect of eating habits such as intake of meat, skipping meals and consumption of fried food and PMDD.

III. METHODOLOGY

This is a diagnostic study conducted among social work students of Madras School of Social Work, Chennai, age group ranging from 18-24 were selected for the present study. Study population was from female participants attending under graduation and post-graduation courses. Based on the prevalence from the similar previous study from India, sample size derived was 72. Sampling technique was simple random sampling. The inclusion criterion for the study participation was voluntary consent. Study instrument was a pretested, self-administered questionnaire. The questionnaire was developed in English language. The survey was carried out with a semi structured questionnaire to collect data on demographic details, menstrual history, food habits, physical exercises & activities, and their depression, anxiety & stress. The study subjects were briefed and requested to answer the questionnaire.

IV. RESULTS & DISCUSSIONS

Table 1. Age & Education of the respondent.

	Age of the Respondent	Education of the Respondent
Mean	21.1250	1.88
Median	22.0000	2.00
Std. Deviation	2.84302	.333

From the table it can be inferred that the mean age of the respondents are 21.12 and their median age 22.00. The standard deviation of age of the respondents are 2.84. Among these 72 respondents, mean of education of respondents are 1.88 and their median is 2.00, with a standard deviation of 0.33.

Table 2. BMI Ranges.

	Number	Percent
Underweight	14	19.4
Normal weight	40	55.6
Over weight	16	22.2
Obesity	1	1.4
Total	71	98.6
Total	72	100.0

The above table shows the BMI ranges of the respondents of the study. Among the 72 respondents, 55.6 percent falls under normal weight category. 22.2 percent are overweight and 19.4 percent respondents are underweight. Only, 1.4 percent of the respondents are obese.

Table 3. Education of the Respondent * PMDD indicator range.

			PMDD INDICATOR RANGE			Total
			Little	Moderate	Heavy	
Education of the Respondent	Under Graduate	Count	3	6	0	9
		% of Total	4.2%	8.3%	0.0%	12.5%
	Post Graduate	Count	23	38	2	63
		% of Total	31.9%	52.8%	2.8%	87.5%
Total		Count	26	44	2	72
		% of Total	36.1%	61.1%	2.8%	100.0%

Above two-third of the population (87.5%) respondents of doing post-graduation showed the indication of PMDD. Among the 87.5 percent, about 52.8 percent respondents displayed moderate indication of PMDD, whereas the 31.9 percent indicated with the little indication. A minority of 2.8 percent, revealed the strong indication of PMDD. Among the undergraduate respondents (12.5%), there is no indication of strong PMDD. 8.3 percent of these respondents showed moderate indication of PMDD, and the rest 4.2 percent showed little

indication of PMDD. This is evident that as the educational background advances there is a relative account of people showing the indications of PMDD. Similarly, the literature searches showed that the menstrual disorders are more prevalent among the people with progress in the education. The collective effects of menstrual disorders on school activities and female students' psychosocial relationship revealed that it was a principal factor affecting their daily school activities and relationship with peers and colleagues. As the activities and the drudgery related to the education expands they have more indication of PMDD [5]. A number of studies have shown an association between socio-economic, biological, cultural, and lifestyle factors and PMDD. One study according that older ladies and girls with a better level of education suffered from PMDD a lot of times compare to our results. However, previous study has found that younger age was related to a lot of severe symptoms of PMDD, whereas another claim that PMDD ladies tend to own lower education. In a study by, there's no correlation between age and PMDD, and an indirect correlation between education and PMDD risk (women with instruction were less seemingly to expertise PMDD). These discrepancies is also thanks to numerous} ages of the respondents in various studies cultural variations or lack of strict PMDD criteria [6].

Table 4. PMDD indicator range.

	Frequency	Percent
Little	26	36.1
Moderate	44	61.1
Heavy	2	2.8
Total	72	100.0

Table 4 gives the data inferred from the respondents, on how the PMDD has been disturbed. Among the respondents, two third (61%) of them have moderate indication of PMDD. Above one third (36.1%) of the respondents have a little indication of the PMDD. Only, few, 2.8 percent of the respondents found to have a strong indication of PMDD

Table 5. Intake of meat * PMDD indicator range.

			PMDD INDICATOR RANGE			Total
			Little	Moderate	Heavy	
Intake of meat	No Response	Count	4	1	0	5
		% of Total	5.6%	1.4%	0.0%	6.9%
	Never	Count	7	9	0	16
		% of Total	9.7%	12.5%	0.0%	22.2%
	4-6 days per week	Count	11	22	2	35
		% of Total	15.3%	30.6%	2.8%	48.6%
	1-3 days per week	Count	4	9	0	13
		% of Total	5.6%	12.5%	0.0%	18.1%
	Every day	Count	0	3	0	3
		% of Total	0.0%	4.2%	0.0%	4.2%
	Total	Count	26	44	2	72
		% of Total	36.1%	61.1%	2.8%	100.0%

Table 5 shows the PMDD indicator range and the relation with the intake of meat. The results show that 48.6 percent of the respondents who take meat on 4-6 days a week have a probability to have indication of PMDD. Among them, one third of the respondents (30.6%) has moderate indication and 15.3 percent respondents to have little indication of PMDD. And the rest of this 48.6 percent, i.e.) 2.8 percent are noticed to have strong indication of PMDD. However, the people those who do not consume meat, i.e.) 22.2 percent are also identified to have indication of PMDD. Out of these 22.2 percent, 12.5 percent respondents showed a moderate indication, together with another 9.7 percent showing little indication of PMDD. 18.1 percent respondents consuming meat during 1-3 days per week are found to have moderate indication among the 12.5 percent of these respondents. Similarly, 5.6 percent of respondents consuming meat have little indication of PMDD. 6.9 percent of the respondents has not responded to the question, whereas the rest 4.2 percent responded that they consume meat on every day and are having a moderate indication of PMDD. Many scientists have reported the adverse effect of the above mentioned habits on menstrual cycle of young women. So it is important to evaluate the present situation and create awareness among college students about the effect of their dietary habits on the menstrual cycle and also the importance of regular physical activities. Life style modifications particularly decreasing the intake of fast food and promoting healthy eating habits should be emphasized. Similar to that, the intake of meat also increases the indication. Thus, it makes clear that with proper consumption of meat, people will have an influence on the premenstrual dysphoric disorder

Table 6. Skip meals * PMDD indicator range.

			PMDD INDICATOR RANGE			Total
			Little	Moderate	Heavy	
Skip meals	No Response	Count	1	0	0	1
		% of Total	1.4%	0.0%	0.0%	1.4%
	Breakfast	Count	8	17	1	26
		% of Total	11.1%	23.6%	1.4%	36.1%
	Lunch	Count	3	7	1	11
		% of Total	4.2%	9.7%	1.4%	15.3%
	Dinner	Count	1	1	0	2
		% of Total	1.4%	1.4%	0.0%	2.8%
	Usually, I do not skip meals	Count	13	19	0	32
		% of Total	18.1%	26.4%	0.0%	44.4%
Total	Count	26	44	2	72	
	% of Total	36.1%	61.1%	2.8%	100.0%	

Table 6 shows the data of the meals skipped and its effects on PMDD. The table can be inferred as 44.4 percent of the respondents usually are not skipping any of their meals, however 26.4 percent of the respondents have moderate indication and the rest 18.1 percent have little indication of PMDD. Among the respondents, apart from those 1.4 percent who have not responded, others skip either of the meal such as breakfast, lunch or dinner. A total of 36.1 percent responded that they skip breakfast. 23.6 percent respondents who skip breakfast have a moderate indication of PMDD, and that of 11.1 percent of the same have little indication. The remaining 1.4 percent have a strong indication of PMDD among this 36.1 percent. Another 15.3 percent responded that they skip lunch. Out of them, 9.7 percent are found to have moderate indication, 4.2 percent to be little indication and the rest 1.4 percent with strong indication of Pre Menstrual Dysphoric Disorder. 2.8 percent of the respondents responded that they skip dinner, among these 1.4 percent respondents fall uniformly under those indicating moderate and little indications of PMDD.

Table 7. Eat fried food * PMDD indicator range.

			PMDD INDICATOR RANGE			Total
			Little	Moderate	Heavy	
Eat fried	No Response	Count	3	0	0	3
		% of Total	4.2%	0.0%	0.0%	4.2%
	Never	Count	3	1	0	4
		% of Total	4.2%	1.4%	0.0%	5.6%
	Daily	Count	1	4	0	5
		% of Total	1.4%	5.6%	0.0%	6.9%
Food	Less than once a week	Count	8	21	1	30
		% of Total	11.1%	29.2%	1.4%	41.7%
	1-3 times per week	Count	7	12	0	19
		% of Total	9.7%	16.7%	0.0%	26.4%
	4-6 times per week	Count	4	6	1	11
		% of Total	5.6%	8.3%	1.4%	15.3%
Total	Count	26	44	2	72	
	% of Total	36.1%	61.1%	2.8%	100.0%	

Table 7 shows the PMDD indication with that of the respondents consuming fried food, on daily and week basis. It can be inferred that, 41.7 percent responded that they eat fried food less than once in a week. Among these respondents it is found that 29.2 percent of them are having a moderate indication of PMDD. Whereas, 11.1 percent have a little indication and the remaining 1.4 percent have a strong indication of premenstrual dysphoric disorder. The respondents who intake fried food 1-3 times per week are 26.4 percent. Among them, 16.7 percent of respondents are found to have moderate, and the remaining 9.7 percent are having little indication of PMDD. 15.3 percent respondents consume fried foods 4-6 days in a week. 8.3 percent of this respondents have moderate indication, and 5.6 percent of them have little indication. The remaining 1.4 percent of those who eat fried food 4 to 6 times a week are appeared to have strong indication of PMDD. On a daily consumption of fried food, 6.9 percent of respondents responded so. Among these respondents, 5.6 percent are found having moderate indication and the rest 1.4 percent to have little indication of PMDD. Those respondents, who do not intake fried food at all, are 5.6 percent. However, people show moderate i.e.) 1.4 percent as well as little indication i.e.) 4.2 percent shown PMDD.

Tables 5, 6 and 7 show the various food habits and their influence on the indication on premenstrual dysphoric disorder. The present study thus shows that there is not much significance in the eating habits and the menstrual problems as well as the premenstrual disorders. However, there can be said to have an influence of the eating habits, and their lifestyle including the consumption of fried food, meat, skipping meals etc. Changes in food habits can cause inadequate intake of calories, micronutrients, unsaturated fat, phytoestrogens and fiber as well as increasing environmental toxins found that young women who skip breakfast have a significantly higher degree of

dysmenorrhea symptoms than young women who eat breakfast, suggesting a positive correlation between skipping breakfast and menstrual disorders [16]. These factors are speculated not only to influence the present lifestyle, but also to induce gynecologic disorders such as dysmenorrhea and irregular menstruation. Another study found that young women who miss breakfast have an extensively happen to have complexity of dysmenorrheal symptoms than young women who takes breakfast. This suggests that there is a progressive association among the folks who skips breakfast and those who have menstrual disorders. Dysmenorrhea is a risk factor for psychological and reproductive health of females, the current study throw light on the importance of eating breakfast to the quality of life of young women[17].

In an earlier study it was observed that majority of the respondents had variety of food habits, however there was no significant association between lifestyle habits and menstrual cycle and any indication for PMDD. But many scientists have observed and reported the adverse effect of lifestyle habits on the menstrual cycle. Lifestyle modifications like regular physical activities, decreasing the intake of junk foods and promoting healthy eating habits should be emphasized to improve menstrual health of young college students [8]. The extensive increase in the young women consuming junk food, fat food, skipping food intake and other changes with globalization and westernization have a great impact on the reproductive health and related issues.

There is an influence of different way factors on PMDD risk which isn't clearly shown, that is cigarette smoking and alcohol consumption was related to the next PMDD prevalence. Low parity, cycle length and also the length of flow were rumored to be related to the danger for PMDD within certain studies. In some studies, ladies reporting vital life stress were a lot of doubtless to be classified as having PMDD. Studies additionally recommend that the bulk of girls with PMDD have a history of mood disorders, anxiety or temperament disorders, history of sexual abuse which the use of oral contraceptivs decreases the severity of PMDD symptoms [6].



V. CONCLUSION

In the present study it was observed that majority of the respondents have moderate indication of PMDD, and a few respondents to have strong indication of PMDD. Similar to that people acquiring post-graduation are found to have indication compared to that of under graduates, gathering an result, as the education progresses the young women are prone to indicate the symptoms of premenstrual dysphoric disorder. Absenteeism was also found common among the students during menstruation. Partners' perceptions of expelling contributed to women's self-conceptualization, resource accessibility, and also the impact of expelling on daily activities. As friends and peers were critical: at school settings, they checked for stains, attended others to dynamic facilities, or provided emergency provides. Teasing or harassment by feminine, however particularly male, peers were extremely distressing for adolescent ladies. They reported great distress at males being tuned in to their expelling standing and bullying behaviors like males teasing them if their standing was unconcealed. Associating to the eating habits and the PMDD indication scores, the present study and the earlier researches showed no significance in the eating habits and menstrual disorders. An adverse effect of the lifestyle changes and their impact on the menstrual disorders and reproductive health has to be explored further with a large population in the future.

Furthermore, the prevalence of PMDD in our population was comparatively tiny. Finally, the homogeneity of the investigated population (social work students from the Madras School of Social Work) doesn't empower us to generalize the results to the healthy feminine population of any place. However, the big size of the study population, the possible character of the analysis, additionally because the strict criteria for PMDD diagnosing would undoubtedly increase the worth of this subject.

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