

Premenstrual dysphoric disorder-its prevalence and associated factors in nursing staff of medical college of central India.

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ABSTRACT

Background

Premenstrual dysphoric disorder is a severe form of premenstrual symptom which is characterized by various mood symptoms, anxiety and somatic symptoms that appear during luteal phase and subside within a week of onset of menstruation. Data related to prevalence of PMDD in Indian population is sparse.

Aim

The aim of this study was to study the prevalence of PMDD in nursing staff of teaching hospital and its associated demographic and menstrual factors. And to identify most frequent symptoms of PMDD.

Material and methods

A cross-sectional survey was conducted in our hospital and 35 nursing staff was approached. Data was analysed for sociodemographic factors and menstrual factors. DSM5 criteria was used for diagnosis of PMDD. Data was analysed using EPI INFO 7.0 SPSS 26. Chi sq test was used to analyse qualitative variables.

Results

Prevalence of PMDD was found to be 57.1% which was quiet higher compared to other studies. The most common symptom reported was decreased interest in daily activities like work and study, followed by difficulty in concentration and marked affective lability. PMDD was found to be associated with regular menstrual cycles.

Conclusion

Prevalence of PMDD is high among nursing staff. It was found to have significant negative impact on quality of life of patients, thus it requires early screening and appropriate intervention.

Keywords-Premenstrual, Somatic symptoms, Mood symptoms.

Introduction

Around 80% of women in reproductive age experiences some or the other physical and psychological discomfort in premenstrual period corresponding to luteal phase of menstrual cycle [3]. These are mostly psychosomatic in nature triggered by changing levels of sex hormones varying from sadness of mood,irritability, mood swings emotional lability,low self-esteem, lack of concentration, bodyache,

edema, weight gain, breast tenderness, and paresthesia. [1]. Symptoms begin 1-week prior to onset of menses and subside within few days [1].

Symptom severity may vary from mild to severe. Premenstrual dysphoric disorder is a severe variant of premenstrual symptoms [1,4]. The morbidity due to PMS is mainly determined by the duration, chronicity, and the resulting emotional distress or impairment in work, relationships, and other activities [6,8]

Women with PMDD report significant impairment in personal relationships, work efficiency, and increased absence from work and college. We planned this study considering PMDD being a relatively under-investigated area in Psychiatry in India.

This study was aimed to determine prevalence of PMDD in the study population, to evaluate association of dependent variable and independent variables, to study association between menstrual variables and PMDD. The main objective of the study was to assess prevalence of PMDD among nursing students of our hospital, and the specific objective was to assess associated menstrual, psychiatric, or familial factors.

MATERIAL AND METHODS

The study was conducted in a medical hospital from January 2021 to March 2021. All nurses working in different departments were included. This was an institution-based cross-sectional study. Study subjects were selected as per following inclusion and exclusion criteria.

INCLUSION CRITERIA

All female nurses in the age group 18-25 years were selected.

EXCLUSION CRITERIA

1. Nurses not consenting for study
2. Any medical co-morbidity.

This was a convenience-based cross-sectional study, single center. Hence, no predefined sample size was taken. All the subjects present during the study period were included after informed consent. Following data was collected: Age, Ethnicity, Socio-economic strata, Education, illness, Relationship status, number of pregnancies, family history suggestive of PMDD, regularity and duration of cycle, and number of cycle days.

RESULTS

We interviewed a total of 35 nursing staff. The mean age of staff with PMDD was 21.4 years.

Prevalence of PMDD as per DSM-5 criteria was 57.14% (n=20)

On investigating the relationship between variables like education, occupation, and marital status [Table 1], results showed majority responders with PMDD were educated till junior college 40% (N=8), followed by Graduation 35% (n=7), Postgraduation 20% (n=4), and Higher secondary 5% (n=1).

Table 2 Proportions of premenstrual dysphoric symptoms among nursing students (n=35)(DSM-5)

Majority of subjects were nursing students 75%[n=15] and only 25%[n=5] worked as nursing staff who met criteria for diagnosis of PMDD.

Around 80%[n=16] subjects with PMDD were unmarried and only 20%[n=4] were married.

Table 1

Variables	Category	PMDD		Z-Statistics	P-Value
		Yes (%)	No (%)		
Mean age		21.4	23.8	-	-
Range (mean±S.D)		21.4 ± 4.69	23.8 ± 6.67	-	0.245
Education	Highschool	1 (5%)	1 (6.67%)	0.276	0.599
	Junior College	8 (40%)	9 (60%)	1.372	0.241
	Graduation	7 (35%)	4 (26.66%)	0.276	0.599
	Post-Graduation	4 (20%)	1 (6.67%)	1.244	0.264
Occupation	Student	15 (75%)	9 (60%)	0.771	0.441
	Nurse	5 (25%)	6 (40%)	-0.526	0.596
Marital status	Married	4 (20%)	5 (33.33%)	-0.465	0.638
	Unmarried	16 (80%)	10 (66.67%)	0.744	0.459

Variables	Category	PMDD		Z-Statistics	P-Value
		Yes (%)	No (%)		
Menstrual Cycle	Regular	20	13	2.079	0.037
	Irregular	0	2	0	1
Duration of menstrual bleeding	1 to 3 days	5	5	-0.312	0.756
	4 to 5 days	12	10	-0.339	0.727
	≥6 days	3	0	0	1

Item	Category	Frequency (N)	Percentage (%)
Marked affective lability	No	17	48.5
	Yes	18	51.4
Marked irritability or anger or increased interpersonal conflicts	No	21	60
	Yes	14	40
Marked depressed mood, feelings of hopelessness or self- deprecating thoughts	No	25	71.4
	Yes	10	28.5
Marked anxiety, tension, feelings of being 'keyed up' or 'on edge'	No	20	57.1
	Yes	15	42.8
Decreased interest in usual activities (eg, work, school, friends and hobbies)	No	11	31.4
	Yes	24	68.5
Subjective difficulty in concentration	No	16	45.7
	Yes	19	54.2
Lethargy, easy fatigability or marked lack of energy	No	21	60
	Yes	14	40
Marked change in appetite, overeating or specific food cravings	No	20	57.1
	Yes	15	42.8
Hypersomnia or insomnia	No	23	65.7
	Yes	12	34.2
Sense of being overwhelmed or out of control	No	30	85.7
	Yes	5	14.2

Physical symptoms such as breast tenderness or swelling, joint or muscle pain, a sensation of ‘bloating,’ weight gain	No	21	60
	Yes	14	40
DSM-5, Diagnostic and Statistical Manual of Mental Disorders, fifth edition.			

On studying the relationship between regularity and duration of menstrual cycle and PMDD results showed around 57.1%[n=20] of subjects had regular flow history which was statistically significant (p0.037) with avg days of flow of 4-5 days /month.

DISCUSSION

We performed a survey on nursing staff of age group 18-25 years with mean age of 21.4 yrs which was similar to other studies done in India [7]. Prevalence of PMDD in our study population was 57.14% which was quiet higher compared to other studies done in India and other countries [7,8].

This could be due to difference in study design, sample size, sociodemographic characteristics of study population, or work stress.

In our study almost all the patients reported atleast one premenstrual symptom which was in keeping with other studies [8,9].As per DSM 5 criteria the most frequently reported functional symptom was decreased interest in daily activities work and studies.

Steiner et al found that almost half of the cases reported impaired social relationship with family and friends similar to our study. Followed by difficulty in concentration and marked affective lability was the most reported symptom in succession. Our study noted that regular menstrual cycle was more associated with PMDD than irregular cycles. This could be the limitation of our study due to small sample size and need further exploration.

We conclude that prevalence of PMDD is quiet high among nursing staff. The most frequent symptom being impaired social relationship and lack of interest in daily activities like work or studies.PMDD was found to be associated with regular menstrual cycle history.

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