

PROFILE OF MENSTRUAL DISTRESS IN PREMENSTRUAL TENSION SYNDROME

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SUMMARY

Profile of menstrual distress of a group of Premenstrual Tension Syndrome patients across the cycle was studied. Pattern of premenstrual symptomatology and their variation in different cycle phases is suggestive of a continuum of distress which gains its maximal intensity in the premenstrual phase of the PMTS cases.

INTRODUCTION

Some women definitely experiences mood or behavior changes to the extent of incapacitation, that are linked to the premenstrual cycle phase. Distress profile in the emotional or emotional-somatic area of patients suffering from Premenstrual Tension Syndrome (PMTS) are mainly credited from the Western culture. The findings about the exact nature and extent of premenstrual symptom complex in Indian PMTS patients is really scanty in our literature. So the present study was designed to assess the frequency, intensity, nature and variation of the premenstrual symptomatology in a group of Bengali PMTS patients.

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MATERIAL AND METHODS

1. **Sample** : 50 PMTS cases were carefully selected by following the research diagnostic criteria of Primary Recurrent PMS of Stainer et al (1980). A control group of normal females of similar size were taken for comparison. The cases were collected from the G & O OPD of Eden Hospital, Medical College, Calcutta. The age range and the menstrual character of the sample is shown in Table I.

2. **Instrument** : Bengali adaptation (Chowdhury and Roy Chowdhury, 1987) of Moos's (1968) Menstrual Distress Questionnaire (MDQ), Form Y, was used for the assessment of premenstrual symptomatology. MDQ is a 45-item (symptom) questionnaire on a 6-point scale ranging from no experience (1) to severe or acute experience (6). There are 8 symptom scales, viz. Pain (P);

Concentration (C); Behavior Change (BC); Autonomic Reaction (AR); Negative Affect (NA); Arousal (A) and Control (CN). The details of the scale use in clinical sample is reported elsewhere (Chowdhury and Roy Chowdhury, 1989).

3. **Methodology** : Menstrual(M)-rating was done within 24 hours of menstrual onset. Subjects were instructed the procedure of MDQ filling and they were provided with the form. Intermenstrual(IM)-rating was done on calculated 14 days premenstrual. Premenstrual(PM) rating was done within the calculated 2-4 days

premenstrum, preferably on the reverse 1st or 2nd day.

4. **Statistical analysis** of MDQ scores were done by using 't' tests.

RESULTS

Table II shows the M-MDQ score distribution. PMTS cases showed higher ratings in all the MDQ symptom scales among which Plain, Behavior Change, Water Retention and Negative Affect and the Total Score showed significant ($p < .01$) differences.

TABLE I
Age and menstrual character of the sample

	Normal female Mean (Sd)	PMTS patient Mean (Sd)
Age (Years)	26.4 (5.35)	26.2 (5.12)
Cycle Length (Days)	28.2 (2.01)	29.3 (1.21)
Flow Duration (Days)	5.1 (1.04)	5.4 (2.27)
Flow Character	No. (%)	No. (%)
Scanty	6 (12)	14 (28)
Usual	40 (80)	30 (60)
Heavy	4 (8)	6 (12)
Time-interval of MDQ rating	Mean (Sd)	Mean (Sd)
M-MDQ (Hours)	16.7 (9.26)	12.4 (6.27)
IM-MDQ (Days)	15.2 (1.11)	14.1 (1.24)
PM-MDQ (Days)	26.2 (1.03)	27.1 (2.03)

TABLE II
Menstrual-MDQ score comparison.

MDQ	Normal female Mean (Sd)	PMTS patient Mean (Sd)	t (df 98)
P	8.2 (1.78)	9.4 (3.73)	2.09*
C	9.4 (1.58)	10.2 (3.55)	1.31
BC	8.3 (2.07)	10.8 (5.34)	3.11*
AR	5.0 (1.36)	5.6 (1.81)	1.62
WR	4.5 (1.05)	7.7 (2.22)	9.15*
NA	10.9 (1.86)	16.6 (8.55)	4.65*
A	7.3 (1.24)	7.8 (2.16)	1.48
CN	6.5 (1.05)	6.9 (1.54)	1.37
Total Score	60.1 (6.04)	74.9 (15.12)	6.41*

* $p < .01$

Table III shows the IM-MDQ score distribution. PMTS cases showed higher scores in significant level ($p < .01$) in Water Retention; Negative Affect; Arousal and Total score than the normal females.

Table IV shows the PM-MDQ score distribution. PMTS cases showed significantly ($p < .01$)

higher scores in all the symptom scales.

Table V shows the ranking as per the mean of percentage frequency of each PM-MDQ symptom endorsement. The first four highest percentage mean was observed in Behavior Change (88 ± 11.75); Negative Affect (82.5 ± 13.38); Concentration (78 ± 24.68) and Water Retention (76.5 ± 34.03) symptom scales.

TABLE III

Intermenstrual-MDQ score comparison.

MDQ	Normal female Mean (Sd)	PMTS patient Mean (Sd)	t (df 98)
P	6.3 (0.068)	6.4 (0.73)	0.85
C	8.5 (0.86)	8.5 (0.97)	0.11
BC	5.5 (0.76)	5.8 (1.26)	1.15
AR	4.1 (0.24)	4.1 (0.36)	0.65
WR	4.2 (0.37)	4.5 (0.86)	2.86*
NA	8.9 (1.31)	11.9 (4.12)	4.91*
A	6.2 (3.03)	8 (1.430)	3.71*
CN	6.2 (0.43)	6.3 (0.69)	1.40
Total Score	49.5 (2.87)	55.5 (5.60)	6.83*

* $p < .01$

TABLE IV

Premenstrual-MDQ score comparison

MDQ	Normal female Mean (Sd)	PMTS patients Mean (Sd)	T (df 98)
P	6.3 (0.54)	15.3 (4.93)	12.89*
C	8.9 (1.35)	17.3 (6.75)	8.54*
BC	5.8 (1.21)	16.3 (6.08)	12.02*
AR	4.1 (0.35)	7.8 (3.18)	8.04*
WR	4.2 (0.59)	12.1 (3.33)	16.44*
NA	10.4 (2.91)	31.0 (9.78)	14.32*
A	6.3 (1.34)	7.2 (2.0)	2.64*
CN	6.3 (0.05)	9.8 (3.0)	8.91*
Toatal Score	52.4 (5.80)	116 (24.65)	17.98*

* $p < .01$

TABLE V

Rank order of percentage mean of PM_MDQ of PMTS cases.

MDQ	Mean (Sd)
BC	88 (11.75)
NA	82.5 (13.38)
C	78 (24.68)
WR	76.5 (34.03)
A	52.5 (14.64)
P	44 (18.07)
AR	44 (22.69)
CN	33.7 (21.48)

DISCUSSION

It is customary to observe an increased distress in the premenstrum of PMTS cases, but the present study shows some interesting findings in the other cycle phase symptoms also. Distress in four symptom scales, i.e. Plain; Behavior Change; Water Retention and Negative Affect shows significant increase in menstrual phase and this higher trend is also continued upto mid-cycle for Water Retention and Negative Affect symptoms. In the mid-cycle, the symptoms of Arousal makes its appearance. In the premenstrual phase, obviously all the symptoms show their highest frequency reporting. So the point of importance to note here is the Water Retention and Negative Affect symptoms - though markedly reported in the premenstrual phase, yet virtually these symptoms are present significantly almost throughout the cycle length. Abplanalp et al (1980) also found that same subject may experience high level of both premenstrual and menstrual symptoms.

Severity of symptom reportings also reveal some important facts. The symptoms of Concentration; Behavior Change; Water Retention and Negative Affect scales cover 100% symptoms in different intensity, i.e. mild to severe. So premenstrual tension syndrome is a mixture of symptoms from all these four scales, two of which (WR and NA) also shows increased prevalence in other cycle phases as well. Control

symptoms, which are regarded not an usual menstruation-related symptomatology, is also reported in high percentages (mild 68% moderate 18%)

Percentage response frequency of each individual symptoms shows that PMTS cases covers all the 45 MDQ symptoms. By arranging the highest frequency reported symptoms of each scale, an interesting symptom-cluster has emerged as follows: muscle stiffness - 66% (P); difficulties in concentration - 100% (C); lowered performance and decreased efficiency - each 100% (BC); nausea and vomiting - 70% (AR); painful breast - 100% (WR); anxiety - 100% (NA); affectionate - 68% (A) and numbness and tingling - 62% (CN). Careful analysis shows that this clustering is indicative of a state of autonomic arousal in PMTS cases. The high frequency reportings of all the symptoms of Concentration scale is a further support to this contention.

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