

Psycho-Social Correlates of Perimenstrual Distress

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Although the symptoms of premenstrual distress may have a physiological basis, there are strong indications that the involvement of psychological factors in precipitating these symptoms cannot be ruled out. The present study is an attempt to identify the important dimensions of premenstrual distress as well as its psycho-social correlates. The sample consisted of 320 women in the age range of 18-50 drawn from various sub-stratas of the general population in Kerala. An assortment of psycho-social variables were subjected to study, which included age, socio-economic status, life stress, maladjustment, and personality. Factor analysis of the different variables of premenstrual distress resulted in the extraction of four meaningful orthogonal factors, with premenstrual distress emerging as the most important dimension. Correlational analysis of the data led to the conclusion that there is a strong psycho-social basis for the various symptoms of premenstrual distress.

Keywords : Menstrual diseases, Premenstrual Syndrome, Perimenstrual Distress, PMS, PMDD, Femininity, Psychosocial correlates

Menstrual distress is one of the common gynecological problems and research in this area are of interest to health workers and psychologists alike. Frank in 1931 first used the term 'Premenstrual tension' and later on Dalton (1960), working with women suffering from menstrual difficulties, began to use the term Premenstrual Syndrome (PMS) to cover a multitude of related problems. Premenstrual syndrome is a group of physical and emotional symptoms which occur 7 to 14 days before the onset of menstruation and disappear during menstruation. At the same time, the term 'Perimenstrual distress' is used to refer to symptoms of distress associated with menstruation, which may be experienced during the period immediately before, during, or immediately after the menstrual process. The common symptoms associated with menstruation are irritability, migraine attack, anxiety, fatigue, depression, difficulty in concentrating, weight gain, breast tenderness, back ache, lethargy, and skin disorders. Although these symptoms were

described more than 50 years ago, recognition of the syndrome by the medical establishment as a discrete condition, which requires attention and treatment, is fairly a recent development. This recognition has led to an exponential increase in published research in this area.

In 1981 PMS was listed as a psychiatric disorder and in the 4th Edition of DSM (American Psychiatric Association, 1994), the diagnostic criteria of a pre-menstrual disorder was outlined, with the label premenstrual dysphoric disorder (PMDD). An examination of these criteria may reveal that the diagnosis of PMDD is made when the symptoms of PMS are present to a sufficiently severe degree (American College of Obstetricians and Gynecologists, 2003; American Academy of Family Physicians, 2002). Generally, among those having premenstrual symptoms only less than 5% have symptoms severe enough to be classified in the category of PMDD. Moore (2000) has observed that the difference between PMS and PMDD can be likened to the difference between a mild

headache and a migraine. It may be noted here that many people have questioned the validity of the diagnosis of a clinical entity on the basis of the menstruation related discomforts experienced by women (Daw, 2002). Chrisler and Johnston-Robeldo (2002) have observed that PMS and PMDD are 'culture bound' syndromes, while Caplan (1995) has stated that there is no evidence that PMDD exists. Similarly, Gallant, Popiel, & Hoffman (1992) have stated that the category of PMDD is neither valid, nor helpful to women. At the same time, Endicott, et al. (1999) have reported that PMDD is a distinct clinical entity, which is similar to depressive disorder, but distinguishable from it because of its association with the menstrual cycle. Similarly, Hartlage, Arduino, & Gehlert (2001) have observed that women with PMDD appear to be at a greater risk for developing major depression.

Studies on the prevalence of PMS in women of reproductive age indicate that as many as 80% have physical discomforts and alterations in mood before menstruation. Only a relatively small number have symptoms of sufficient severity to disrupt their social or economical performance (Mortolo, 1992). According to Ussher (1994), women's apparent inability to achieve as much as men, or their propensity to experience psychological problems is often attributed to menstruation.

One of the possible explanation for menstrual and premenstrual distress is the influence of life stress. It can be argued that any connection observed between menstruation and certain undesirable events such as an examination failure, or an accident may be due to an increase in the life stress (Gannon, 1981; Sommer, 1982). The study by Brown and Lewis (1993) found that women who had higher levels of premenstrual symptomatology demonstrated significantly greater perceived stress in the premenstrual phase. Sommer (1972) has noted that studies using response measures based on self-report and social behaviors indicate a behavioral decrement associated with the premenstrual and menstrual phases. At the same time, studies utilizing objective performance measures generally fail to demonstrate menstrual cycle related changes. In this vein, researchers who have examined the role of cognitive or personality factors have reported that women who suffer from PMS score higher on measures of neurotic personality (Sommer, 1992). It has also been suggested that type-A behavior

pattern interacts with life stress in determining the presentation of menstrual distress symptoms (Dinning and Guptill, 1992).

The above studies on premenstrual distress indicates that the entity may have strong psychological and socio-cultural determinants. On the contrary, recent studies concentrate more on bringing out the biological determinants of the distress. A role of progesterone has long been suspected, because its increased serum concentration in the luteal phase of the menstrual cycle corresponds to PMS symptom onset. Schmidt et al. (1998) demonstrated separate associations of PMS symptoms with estrogen and with progesterone. First relieving PMS symptoms by blocking the effects of both hormones, the investigators found that symptoms resumed when either progesterone or estrogen was administered separately. According to mortola (1998), PMS is probably the result of complex interaction between ovarian steroids and central neurotransmitters. However, one has to take in to consideration the role played by psycho-social factors also in this context. Identifying these factors may be helpful in understanding the phenomena better and also in developing effective management strategies. Accordingly, the present investigation is undertaken as an exploration in to the psycho-social factors associated with perimenstrual distress.

The objectives of the present investigation were to identify the dimensions of menstrual distress and to find out the nature of relationship between these dimensions and certain other personality and socio-demographic variables such as type-A behavior pattern, maladjustment, locus of control, sex-role orientation, socio-economic status, marital status, and life stress events.

Method

Sample:

Stratified random sampling technique was used for selecting the sample. The sample consisted of 320 women between the age group of 18 and 50 years drawn from various sub-categories selected to represent the normal women population in Kerala. Stratification was done on the basis of socio-economic status [high (n=95) / low (n=67) / middle (n=158)], employment [employed (n=189) / unemployed (n=131)], marital status [married (n=220) / unmarried (n=95)], and place of residence [urban (n=251) / rural (n=69)]. Also, the working

women were classified under six different occupational categories, viz., unskilled laborers (n=11), house wives (n=77), skilled laborers (n=47), students (n=54), clerks/school teachers (n=98), and officers/higher professionals (n=33).

Tools:

All the tests were prepared in vernacular to make them clear and understandable to all sections of the population studied. Altogether, seven standardized tests were used in this investigation. A brief description of the psychometric properties of these tests are given below.

Attitude Towards Femininity: This is a 14 item scale which can be used to measure the attitude of a female subject towards femininity (Narayanan and Thomas, 1996). A positive attitude towards femininity is indicated by a sense of satisfaction and pride in being born as a female, while a negative attitude is revealed by a feeling of resentment in being born as a female. The test is designed as a self administering one with 5 response categories ranging from strongly agree to strongly disagree.

Reliability of the test was established using 3 different methods. Split half reliability of the scale was found to be 0.72 (after correction using Spearman-Brown formula; N=320) and the test-retest reliability (after a period of one month; N=52) was 0.66. Cronbach alpha of the scale was 0.68 (N=320). The inventory is reported to have a high degree of content validity and face validity.

Menstrual Distress Questionnaire (MDQ): The MDQ, originally developed by Moos (1969), was adapted with modifications to suit the local conditions and culture (Narayanan, 1996). This test was used to analyze the behavioral and affective responses of women associated with premenstrual, menstrual, and post-menstrual phases. The questionnaire contains descriptions of symptoms classified in to 8 categories viz., pain, concentration, behavior change, autonomic reaction, water retention, negative affect, arousal, and control, each of which was scored relating to 3 different phases of the menstrual cycle (Menstrual, Premenstrual, and Post-menstrual). Thus the questionnaire gave scores on 24 variables (8x3) related to perimenstrual distress.

Re-test reliability of the whole test as well as the eight sub-components have been reported (Narayanan, 1997). These values range from 0.993 to 0.998. Validity for the test is claimed on the basis

of the fact that it is an adaptation of an existing popular tool with established validity.

Bem Sex Role Inventory (BSRI): The BSRI, originally developed by Bem (1974) was translated in to the vernacular language (Malayalam) for use in the present study. The inventory gives a measure of masculinity and femininity as two independent dimensions. BSRI also includes a separate measure of social desirability which taps social desirability responding and is not related to sex role orientation. The scale consist of 20 masculine items, 20 feminine items, and 20 neutral items (for taping social desirability responding). This test is designed as a self administering one and the responses are marked on a 7 point scale.

Test-retest reliability of the original scale developed by Bem (1974) was 0.90 each for masculinity and femininity, and 0.89 for social desirability. Test-retest reliability of the translated version used for the present study was 0.84 for masculinity, 0.99 for femininity, and 0.94 for social desirability. As the present scale is an adaptation of an existing popular scale with proven validity, it can reasonably claim to have the same validity as for the original scale.

Mathew Maladjustment Inventory (MMI): The MMI was developed by Mathew (1975) to measure the extent of maladjustment in normal subjects. The inventory has a long form which gives a measure of 5 different aspects of maladjustment and a short form which gives a measure of general maladjustment. The latter was used in the present study.

Split-half reliability of the short form of the scale was estimated twice and the coefficients obtained were 0.74 and 0.82. Test retest reliability, in two attempts were 0.55 and 0.68. In addition to content validity, empirical evidence regarding the validity of the tool is obtained from the fact that the test correlated 0.68 with the neuroticism scale of a Malayalam adaptation of the EPI.

Type-A Behavior Scale: Kumar (1996) developed the Type-A behavior scale for use with Kerala population. This is a 15 item scale, which can be used to measure the type-A behavior pattern of the subject. The test is reported to have a split half reliability of 0.44 and the retest reliability of 0.61. The test has a good amount of content validity and face validity.

Internal-External Scale (I-E Scale): This tool

consisting of 15 items was developed by Kumar and Thomas (1992). The test is modeled after the well known test for measurement of locus of control developed by Rotter (1966). The test has a split-half reliability of 0.69. Evidence regarding the content validity of the test has been reported by Chitra (1992), who found predicted difference in the scores obtained by groups of accident victims, patients awaiting surgery, and a normal control group.

Stress of Life Events Inventory (for women). Sreedhar and Lata (1982) developed this inventory to measure the extent of life stress experienced by women. The inventory is reported to have a retest reliability of 0.99. The inventory also have a high amount of content and face validity.

Besides these questionnaires, the study also made use of a personal data form to collect

information regarding the socio-demographic variables and behavioral peculiarities of the subjects. All the test materials were administered together in a single session individually. Generally the respondents were contacted at their places of work or at their residence. When dealing with subjects in the lower socio-economic category (mainly with skilled and unskilled laborers), the investigator read out the items and marked the responses given by the subjects.

Results and Discussion

Dimensions of Perimenstrual Distress: The 24 variables relating to various aspects of perimenstrual distress were subjected to principal component analysis with a view to reduce the number of variables and to identify the dimensions underlying the various symptoms of perimenstrual distress. Principal component method of factor

Table 1. Rotated factor matrix of the items in the Menstrual Distress Questionnaire.

Items	Factor I	Factor II	Factor III	Factor IV	Communality (h ²)
CO-B*	0.885	0.116	0.163	0.083	0.831
N-B	0.861	0.147	0.187	0.264	0.869
BE-B	0.845	0.196	0.150	0.095	0.784
AU-B	0.808	0.230	0.220	-0.050	0.757
P-B	0.781	0.073	0.235	0.056	0.674
W-B	0.758	0.105	0.181	0.279	0.697
CL-B	0.499	0.437	0.305	0.237	0.590
BE-A*	0.217	0.816	0.076	0.157	0.743
N-A	0.157	0.798	0.169	0.285	0.772
AU-A	0.133	0.750	0.290	-0.006	0.664
CO-A	0.143	0.715	0.189	-0.053	0.570
W-A	0.067	0.690	0.143	0.303	0.592
P-A	0.258	0.684	0.037	0.057	0.539
CL-A	-0.007	0.683	0.166	0.231	0.547
AU-D*	0.179	0.243	0.791	0.009	0.717
BE-D	0.155	0.061	0.784	0.146	0.664
N-D	0.253	0.247	0.760	0.273	0.777
CL-D	0.005	0.382	0.706	0.109	0.656
P-D	0.192	-0.011	0.701	0.042	0.530
W-D	0.305	0.195	0.650	0.273	0.629
CO-D	0.348	0.245	0.597	0.123	0.552
AR-A	0.007	0.211	0.182	0.795	0.711
AR-B	0.359	0.261	0.174	0.758	0.801
AR-D	0.386	0.180	0.231	0.609	0.605
Percentage of variance	41.700	11.700	8.800	5.600	67.800

Abbreviations : CO: Concentration; N: Negative affect; BE: Behavior Change; AU: Autonomic reaction; P: Pain; W: Water retention; CL: Control; AR: Arousal.

*B: denotes one week before the onset of menstruation; A: denotes one week after menstruation; D: denotes during menstruation.

extraction followed by varimax rotation resulted in the extraction of 4 significant and meaningful factors (vide table 1). All the variables which had high loading by factor I related to distress experienced by women one week before the onset of menstruation and hence the factor was identified with the label Premenstrual Distress (PrMD). Factor II was loaded on by variables which measure the distress experienced during the period which follow menstruation. This factor was identified as Post-menstrual Distress (PtMD). The third factor, which was identified with the label Menstrual Phase Distress (MPD), was loaded on by variables relating to distress experienced during menstrual phase.

Finally, the fourth factor was identified as General Arousal which had high loading on three variables, all of which related to a single aspect of menstrual distress, viz., general arousal experienced during 3 different phases of menstruation. These four factors together account for 67.8% of the total variance. Since the factor PrMD accounts for almost half of the total variance (i.e., 41.7%) it can be considered as the most important factor. The second and third factors (viz. PtMD and MPD) contribute only marginally (i.e., 11.7% and 8.8% respectively), to the total explained variance and hence it can be considered as minor dimensions of perimenstrual distress.

It is interesting to note that 'arousal' stands out separately from the other menstrual distress variables which cluster neatly into 3 groups corresponding to the 3 different phases of menstrual cycle. Based on these results, it can be argued that arousal do not belong to the constellation of perimenstrual distress variables in the present population. This is in contrast to the conception of menstrual distress syndrome by Moos (1969) who developed MDQ for use with the American population incorporating 'arousal' as one of the symptoms. It may be hypothesized that in the cultural context of the present study, arousal is under the control of strong socio-cultural factors, and hence it is less influenced by variations of biological rhythm.

Correlations of Menstrual Distress Variables with the other Variables

Pearson 'r' was used to determine the relationship between the factors of perimenstrual distress and the other study variables. The coefficients obtained are presented in table 2.

The results of the analysis indicate that the factor premenstrual distress (PrMD) has significant correlation with general maladjustment ($r = 0.37$; $p < 0.001$), life stress events ($r = 0.33$; $p < 0.001$), socio-economic status ($r = 0.30$; $p < 0.001$), age ($r = 0.33$; $p < 0.001$), type A behavior pattern ($r = 0.17$; $p < 0.01$), and significant negative correlation with having membership in social organization ($r = -0.49$; $p < 0.001$). The negative sign of the variable 'membership in social organization' is simply due to the fact that the answer 'Yes' was coded 1 and 'No' was coded 2.

These correlations reveal that high scorers on the factor premenstrual distress (PrMD) can be identified on the basis of their personality as well as the social class in which they belong. The personality pattern predictive of PrMD is defined by high scores in type A behavior pattern and general maladjustment. They also report to have experienced greater amount of stressful life events. The obtained correlations may be explained as due to the fact that people with greater general maladjustment and type A personality pattern are sensitive to all sources of distress and hence they experience the menstrual distress in a heightened fashion. Another notable feature in the correlation obtained is that all the indices of socio-economic status (viz., educational status, occupational status, source of stable income, personal income, income of husband, composite score on socio-economic status, and membership in social organization) are higher in the high scorers of premenstrual distress. This leads to the conclusion that PrMD is greater in women belonging to the higher socio-economic strata. It is possible that the people in the higher socio-economic strata are privileged to have greater leisure time and better social life and hence they are more sensitive to minor discomforts, like the inconveniences associated with menstruation.

The factor post-menstrual distress (PtMD) correlates positively with maladjustment ($r = 0.26$; $p < 0.001$) and type A personality ($r = 0.13$; $p < 0.01$) and negatively with income of husband ($r = -0.15$; $p < 0.01$), and socio-economic status ($r = -0.13$; $p < 0.01$).

It is evident from the results that as in the case of PrMD, high maladjustment and type A behavior pattern are predictive of greater post-menstrual distress also. This may be because people high on maladjustment have tendency to exaggerate negative feelings and always complain of some or

Table 2. Correlations of the factors of menstrual distress variables with the other variables

Variables	PrMD	PtMD	MPD	General Arousal
AGE	0.329**	-0.109	-0.049	-0.056
EDN	0.210**	-0.101	-0.093	0.144
OCCN	0.183**	-0.088	-0.046	-0.014
I-Y	-0.179**	0.128	-0.033	-0.095
I-S	0.295**	-0.104	-0.048	0.044
I-H	0.360**	-0.145*	-0.087	0.141*
SES	0.297**	-0.130*	-0.086	0.089
LOC	-0.088	0.097	0.017	-0.161*
SOC	-0.489**	0.044	-0.080	-0.148*
I-E	0.071	0.041	-0.010	0.193**
MMI	0.367**	0.261**	0.172**	0.080
T-A	0.168*	0.130*	0.106	0.130*
SRI-M	0.056	-0.018	0.127	0.011
SRI-F	-0.023	-0.096	0.153*	0.034
SRI-N	0.013	0.005	0.177**	-0.032
SLI	0.335**	0.062	0.110	0.067
FEMTY	0.064	-0.068	-0.169*	0.201**

Note : N = 320; * $p < 0.01$; ** $p < 0.001$

Abbreviations: EDN: Education; OCCN: Occupational status; I-Y: Having stable income; I-S: Income of self; I-H: Income of husband; SES: Socio-economic status; LOC: Locale(place of residence); SOC: Membership in social organizations; I-E: Locus of control; MMI: General maladjustment; T-A: Type A personality pattern; SRI-M: Masculinity; SRI-F: Femininity; SRI-N: Social desirability responding; SLI: Life stress FEMTY: Attitude towards femininity.

other discomforts in their life. At the same time, negative correlation of PtMD with socio-economic status indicates that those belonging to the upper socio-economic status experience a greater relief, once the menstrual process is over.

The factor menstrual phase distress (MPD) correlates with social desirability responding (in BSRI) ($r = 0.18$; $p < 0.001$), general maladjustment ($r = 0.17$; $p < 0.001$), negative attitude towards femininity ($r = -0.17$; $p < 0.01$), and feminine sex role orientation ($r = 0.15$; $p < 0.01$).

The above results indicates that in addition to general maladjustment (which was found to be predictive of the other menstrual distress factors), a feminine sex role orientation and negative attitude towards femininity are associated with the experience of higher distress in the menstrual phase. The present investigators would like to offer the following explanation for the above findings. The greater feeling of distress associated with menstrual process reported by those with higher feminine orientation results from their inability to take a tough and 'don't care' attitude towards stressful events. At the same time, those who experience a greater amount of stress during menstruation are more

likely to associate femininity with negative feelings and valuation.

It may be noted that, in the case of general arousal (factor IV), the pattern of correlation is different from the ones obtained with the other three factors. The variables which correlate significantly with the factor are attitude towards femininity ($r = 0.20$; $p < 0.001$), internal locus of control ($r = 0.19$; $p < 0.001$), place of residence (urban coded 1 and rural coded 2; $r = -0.16$; $p < 0.01$), having membership in social organization ('Yes' coded 1 and 'No' coded 2; $r = -0.15$; $p < 0.01$), educational status ($r = 0.14$; $p < 0.01$), income of husband ($r = 0.14$; $p < 0.01$), and type A personality ($r = 0.13$; $p < 0.01$). In short, the picture that emerges is that the urban middle/upper class women with internal locus of control and type A personality tend to have greater general arousal. They also have a positive evaluation of femininity.

Multiple Correlation and Regression of Factors of Menstrual Distress

The results of analysis using Pearson 'r' have brought out the bivariate relationship between the different dimensions of perimenstrual distress on the one hand and the other study variables on the

other. Considering the possibility that the predictor variables themselves are highly correlated, further analysis is called for to find out the relationship between perimenstrual distress variables and the other predictor variables more parsimoniously. Multiple regression analysis is best suited for the purpose. This helps in isolating the minimum number of predictor variables which together may explain the maximum amount of variance in the dependent variable. In the present instance, the step-wise method of multiple regression was employed as it enables the estimation of the sequential contribution to variance explanation in the dependent variable by the different independent variables. The results of the analysis are presented in table 3.

The final regression equation using the factor PrMD as the dependent variable contained five variables, viz., membership in social organization, maladjustment, husband's income, age, and income of self. The multiple R obtained was 0.65, which meant that the five variables together explained 42.7% of the total variance of the dependent variable (Panel 1 of table 3). The regression equation indicates that PrMD is more likely in relatively elder women who come from higher socio-economic groups and who have high general maladjustment.

The regression equation relating to post-menstrual distress (PtMD) contained 3 variables, viz., maladjustment, husband's income, and femininity, which could explain about 10% of variance in the dependent variable. The multiple R obtained was 0.31 (Panel 2 of table 3). On the basis of these results it may be concluded that PtMD will be higher in those with higher maladjustment, lower femininity, and also in those who are from lower income group.

The regression analysis with menstrual phase distress (MPD) as the dependent variable contained three predictor variables, viz., social desirability responding, maladjustment, and attitude towards femininity. Together, they explained 7.3% of the total variance of the dependent variable. Multiple R obtained was 0.27 (Panel 3 of table 3). From the results it appears that high degree of MPD is more likely in those with greater general maladjustment and negative attitude towards femininity. The tendency to project oneself in a socially desirable way is also found to be predictive

of high distress during the phase of menstruation.

The variables contained in the regression equation to predict the factor general arousal are attitude towards femininity, locus of control, maladjustment, locale, occupational status, and type A behavior pattern. The multiple R obtained was 0.34, which meant that 12% of the total variance of the dependent variable could be explained by the set of predictor variables (Panel 4 of table 3).

On the basis of these results, it may be concluded that general arousal will be high in those with a positive attitude towards femininity, internal locus of control, type A behavior pattern, lower income jobs, urban residence, and general maladjustment.

The composite score on perimenstrual distress, when subjected to regression analysis as the dependent variable, resulted in an equation containing five predictor variables. They are, maladjustment, life stress, membership in social organization, education, and social desirability responding. The multiple R associated with the equation was 0.61, which meant that 37% of the total variance of the dependent variable could be explained by the predictor variables (Panel 5 of table 3).

On the basis of the regression equation, it seems reasonable to conclude that perimenstrual distress is likely to be greater in those women, who are generally maladjusted, socially active, subjected to greater amount of life stress, better educated, and have a tendency to project themselves in socially desirable ways.

The findings of the present study are of great significance in the conceptualization of the syndrome of perimenstrual distress. The identification of premenstrual, post-menstrual, and menstrual phase distress as independent dimensions, supported by factor analysis, has lent strong credibility regarding the reality of these entities. Further, the results also clearly indicate that among these dimensions, premenstrual distress is the most important one, and that it has strong psycho-social determinants. Based on these results, it may be reasonable to suggest that premenstrual distress is an identifiable clinical entity with definite biological, psychological, and social determinants which interact together in complex ways. The relationship that is found between the different dimensions of perimenstrual distress and

Table 3. Beta weights and other statistics associated with the variables included in the regression equation for PrMd, PtMD, MPD, General Arousal, and MDS (Perimenstrual distress).

Panel	Dependent variable	Predictor variables	B	Beta	Multiple R	Cumulative % of explained variance
1	PrMD	Membership in social organization	-7.45	-0.28	0.49	23.90
		Maladjustment	0.66	0.33	0.56	31.80
		Husband's Income	1.85	0.23	0.62	38.40
		Age	0.18	0.14	0.64	41.30
		Income of self	1.03	0.13	0.65	42.70
		(Constant)	47.03	***	***	***
2	PtMD	Maladjustment	0.49	0.25	0.26	6.80
		Husband's Income	-1.19	-0.15	0.29	8.40
		Femininity	-0.09	-0.12	0.31	9.80
		(Constant)	58.70	***	***	***
3	MPD	Social Desirability	0.15	0.16	0.26	6.80
		Maladjustment	-1.19	-0.15	0.29	8.40
		Attitude towards Femininity	-0.09	-0.12	0.31	9.80
		(Constant)	58.70	***	***	***
4	General Arousal	Attitude towards fermnmily	0.21	0.22	0.20	4.00
		Locus of control	0.42	0.14	0.25	6.30
		Maladjustment	0.20	0.10	0.28	8.10
		Location	-3.20	-0.13	0.30	9.20
		Occupation	-0.96	-0.14	0.32	10.50
		Type A behavior	0.21	0.12	0.34	11.80
		(Constant)	40.80	***	***	***
5	MDS	Maladjustment	4.75	0.39	0.48	22.60
		Membership in social organization	-40.90	0.26	-0.57	32.60
		Stress	0.26	0.15	0.58	34.10
		Education	7.18	0.15	0.60	35.60
		Social desirability	0.61	0.11	0.60	36.90
		(Constant)	37.90	***	***	***

variables like maladjustment, life stress, and type A behavior pattern lends itself to certain therapeutic implications also. The study has revealed that those with greater maladjustment, life stress events, and type A behavior pattern are more likely to suffer from premenstrual distress. This points to the possibility of intervention programs aimed at bringing down the stress level and change in life style and behavior pattern, which may ultimately ameliorate their menstrual distress.

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