

Prevalence of Academic Stress on Levels of Premenstrual Syndrome, Age and Region among Tribal Females of Ranchi District

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ABSTRACT

The Objective of this study is to know the Prevalence of Academic Stress. Subjects were selected on Stratified Random Sample techniques. The data were collected with the help of PDQ and Academic Stress Scale. In this study it was found that the level of Academic Stress was High in total and sample sub-groups as compared to low and moderate levels.

Keywords: *Academic stress, Premenstrual syndrome, Age, Region, tribal females*

Concept of Academic Stress

Academic stress has become part of the student's scholastic life due to the different internal and external desires set upon their shoulders. Students are especially defenseless against the issues related to scholastic pressure as advances happen at an individual and social level it, therefore, gets basic to understand the sources and effect of academic stress so as to determine satisfactory and productive mediation systems. The five elements of sources, for example, personal inadequacy, fear of failure, interpersonal difficulties with teachers, teacher-pupil relationship and inadequate examination offices were additionally broke down and gender differences were likewise acquired.

Stressors have a major impact upon state of mind, our feeling of prosperity, behavior, and wellbeing. Intense stress reactions in youthful, sound people might be versatile and regularly don't force a wellbeing trouble. The relationship between psycho-social stress or and infection is influenced by the nature, number, and persistence of the stressors just as by the person's organic weakness (i.e., hereditary qualities, established factors), psychosocial assets, and educated examples of adapting. Psychosocial mediations have demonstrated helpful for treating stress- related disorders and may impact the course of ongoing infections.

Understanding the sources of stress would encourage the improvement of successful advising modules and mediation systems by school psychologists and counselors so as to assist under studies with lightening stress.

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Received: September 2, 2024; Revision Received: September 12, 2024; Accepted: September 16, 2024

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Concept of Premenstrual Syndrome

According to Daniel M. Campagne and Ghislaine Campagne, (2007) Premenstrual syndrome is one of the most common disorders of reproductive age that can be seen in different intensities in 90-85% of women. PMS is around characterized as the gathering of side effects happening just during the luteal period of a lady's menstrual cycle implying that happens multi day before menstrual period and lessening with the beginning of the menstrual. The premenstrual syndrome commonly happens between the ages of 25-45 years. It is joined by various side effects that influence wellbeing. In certain investigations has been reported the pervasiveness of premenstrual syndrome between 90-45%. The most important physical manifestations are feeling overpowered, food longing for, insomnia or hypersomnia, headache, pelvic agony and discomfort, bosom delicacy, joint torment, swelling; and the most well-known and upsetting emotional side effects are peevishness, tension, despondency, emotional episode, aggression, poor concentration, confusion, social withdrawal and relational clashes.

REVIEW OF LITERATURE

Chantelle Renee Katjiukuaet.et al, (2020), reviewed the prevalence and knowledge of PMS among adolescents and evaluated the effectiveness of teaching methods regarding PMS. 18 articles were reviewed from 2018-2019, it found that, in every study there were more than 50% of adolescent girls were suffering from PMS and related to knowledge the results showed that the girls had lack/little knowledge on PMS, but there was an enhancement in knowledge after implementing the educational programs related to PMS.

Johnson (2004) study shown most women symptoms are mild and manageable. However, 3–8% of women report premenstrual irritability, tension, dysphoria and mood lability that seriously interfere with daily living and relationships. Previous Indian studies have determined a 40% incidence of PMS in the widely wide-spread populace and amongst these with PMS 12% had severe symptoms.

According to **K. Yonkers, Eriksson and O'Brien, (2008)** up to 75% of women of reproductive age experience some physical or psychological symptoms attributed to the premenstrual phase of the menstrual cycle. This phenomenon is often classified by the generic term premenstrual syndrome or PMS and refers to a combination of symptoms that appear during the week before menstruation and resolve within a week of onset of menses.

AudraL. Gollenberg, Mary L. Hediger, SunniL. Mumfordet.al. (2010) conducted a study related to “Perceive stress and severity of premenstrual symptoms. The result of the study is that higher perceived stress precedes an increased severity of premenstrual symptoms. Stress reduction programs may be an effective, non-pharmaceutical treatment for physical and psychological symptom relief.

Ms. P. Padmavati, Rajasankar, N. Kokilavani (2014) conducted a study that shown diabetes is the stressor which may leads to stress among those affected with the disease. Descriptive research design is used for this study. Total sample of the study is 50. Descriptive statistics such as frequency, percentage, mean and SD was measure the perceive level of stress. Chi square was used to associated the perceived level of stress with selected demographic variables. The result is 52% of the diabetics clients have high level of stress.

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Qing Liu, Yongshun Wang, Cornelis Hermanusvan & WeiQiao (2017) conducted a study related “Stress reactivity and emotion in premenstrual syndrome. The present study used an electroencephalogram (EEG) stress evaluation test. The result of the study that women with PMS had higher negative affect and lower positive affect compared with controls. Moreover, under stressful conditions, the women with PMS had a higher alpha activity and a lower respiration rate than the controls. The differences in stress reactivity and emotional states between women with PMS and controls were based on a covariant analysis with menstrual cycle as the covariate.

According to **Maria del Mar Fernandez, Carlos Regueira Mendez, Bahi Takkouche (2019)** the psychological factors perceived stress, neuroticism and coping strategies are associated with premenstrual syndrome. The research design is Spanish case control study. The sample were selected from the 285 consecutive cases of PMS and 285 age matched controls as well as 88 PMDD cases and 176 control participated in the study. The result of the study is medium and high levels of perceive stress were associated with an increase in odds of PMS High levels in the large majority of coping strategies were also associated with increased odds of PMS and PMDD.

METHODOLOGY

Objectives of study

The objective of the present research was as follow:

- To know the Prevalence of Academic Stress on levels of premenstrual syndrome, age and region among tribal females.

Hypothesis

The hypothesis of the present research was as follow:

- The Prevalence of Academic Stress will vary on levels of premenstrual syndrome, age and region among tribal girl students.

Sample Design

- The multi factorial design was based on 3X2X2 (Premenstrual syndrome, age and resign). The sample was consisted 240 students. Sample design is presented below:

Table-1

Sample groups	Urban		Rural		Total
	Age-I	Age-II	Age-I	Age-II	
Severe	20	20	20	20	80
Moderate	20	20	20	20	80
Mild	20	20	20	20	80
Total	60	60	60	60	240

Note: Age-I= 18-20 years, Age-II = 25-27 years, Severe = 121-160 in actual scores and 61-80 in percentage of scores, Moderate=81-120 in actual scores and 41-60 in percentage of scores and Mild=41-80 in actual scores and 21-40 in percentage of scores.

Sample

For the present study the sample size was consider 240 students. The sample was selected stratified random sampling technique. Total 12 strata were formed according to 3x2x2 multi factorial design and 20 samples were equally divided into each group. The basis of sample stratification was:

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- Levels of Premenstrual syndrome = 3 (Severe, Moderate and Mild)
- Age= 2 (Age-I (18-20years) and Age-II (25-27 years))
- Region = 2 (Urban and Rural)

Selection Criteria

Inclusion Criteria:

- Only tribal females included.
- Only Ranchi district females included.
- Subjects with age 18-20 and 25-27 years of tribal females students.
- Urban and Rural region was included.
- Subjects who had completed or above higher secondary education.

Exclusion Criteria:

- Below 18 years, between 20 and 25 as well as 27 years above was excluded.
- Any major psychiatric disorder, neurosis and medical disorder.
- Subjects who had primary or high school were excluded.
- No premenstrual syndrome symptoms girls were excluded.
- Very severe premenstrual syndrome symptoms were excluded.

Tools for screening purpose

i. Personal Data Questionnaire (PDQ)

Personal Data Questionnaire (PDQ) was prepared by the Research Scholar. It was used to obtain information about respondents' name, class, age, annual income, region, name and location of college.

ii. Premenstrual Syndrome Scale (PMSS)

Premenstrual Syndrome Scale (PMSS) was developed by Ms. P. Padmavathi, Dr. Raja Sankar, Dr. N. Kokilavani, K. Dhanapal & Ashok (2014). This scale consisted of 40 items. This is 5-point Likert-type scale. The measurement on the scale is according to the following scoring system: the response Never was scored as "1", rarely as "2", sometimes as "3", very often as "4" and always as "5" point. Based on the percentage of scores the levels of premenstrual symptoms are graded in five categories. They are "No symptoms", "Mild", "Moderate", "Severe", and "Very severe" symptoms. The ability of the Premenstrual syndrome Scale to predict the development of PUs (predictive validity) has been tested extensively. Inter-item reliability between .81 and .97 is reported.

For measuring dependent variables

Academic Stress Scale

Academic Stress Scale was originally developed and designed by Kim (1970). The scale was adapted to Indian conditions by Rajendran and Kaliappan (1990) was used to understand the sources of stress of inter and under graduate 16 to 30 years college students. This questionnaire was selected on the basis of previous results obtained during the pilot study of this project. This Scale consists of 40 items divided into five components. 1. Personal Inadequacy (F1), 2. Fear of failure (F2), 3. Interpersonal difficulties with teachers (F3), 4. Teacher-pupil relationship (F4), 5. Inadequate Study facilities (F5). It is a five point scale varying from the response of "nostress" to "Extreme Stress" with regard to the degree of stress. The rating scale is scored as 0-1-2-3-4. Therefore 160(4x40) is the maximum possible score and the highest score. On each factor would be 32. Each factor has equal number of

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items. The higher the value of the score the more the academic stress. The test - retest correlation of 50 individuals with an interval of 20 days has been found to be 0.82.

Procedure

240 college girl students from different colleges of Ranchi district was selected according to above stratification. The details of socio demographic variables were recorded through Personal Data Questionnaire, prepared by the investigator. Quality of life scale will be administered on the selected sample. Scoring was made according to the using standard scoring procedure of the test manual.

Plan of Analysis

The data obtained was analyzed using appropriate statistical techniques.

Analysis

In order to know the prevalence of Academic stress, Academic Stress Scale was used on the tribal girl students. This scale had 40 items. The range of score was 0-160. Higher score indicates the higher level of Academic stress.

On the basis of score, the following three levels of Academic Stress were assessed:

Scores	Levels of academic stress
0-53	Low academic stress
54-107	Moderate academic stress
108-160	High academic stress

On the basis of obtained scores on academic stress scale, the numbers of students having low, moderate and high levels of academic stress were counted and converted into percentage. The results were presented in Table-2 and Figure-1. The following trends were observed here:

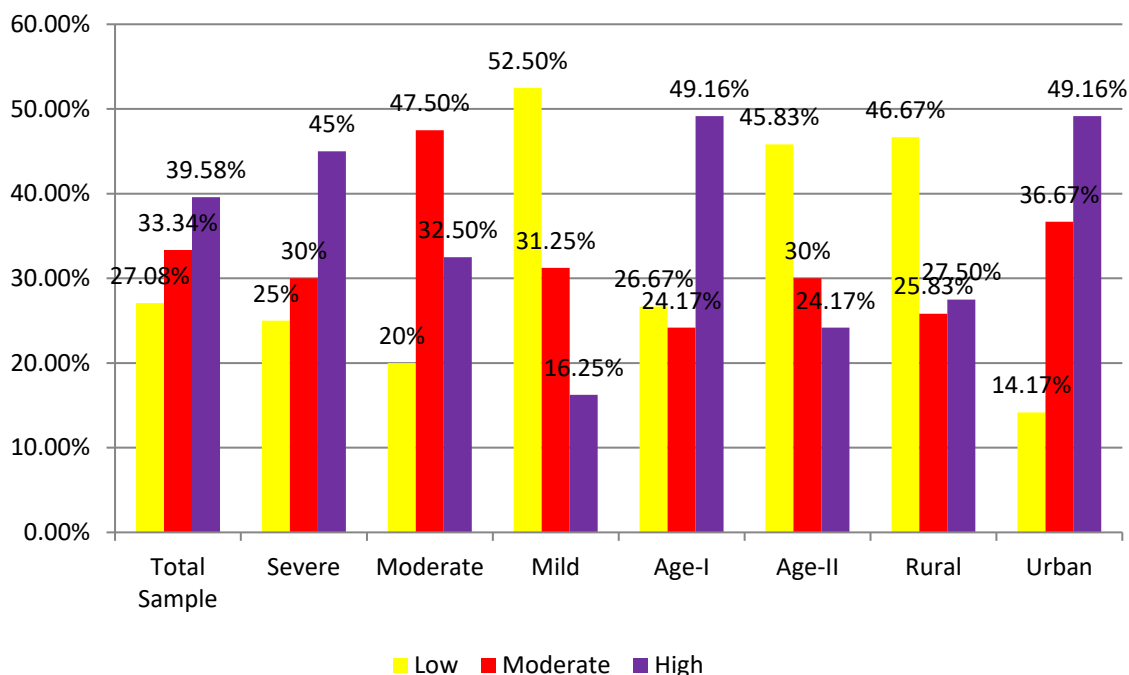
Table- 2 Levels of Academic Stress among tribal females

Groups	Low		Moderate		High	
	N	%	N	%	N	%
Total Sample	65	27.08	80	33.34	95	39.58
Severe	20	25.00	24	30.00	36	45.00
Moderate	16	20.00	38	47.50	26	32.50
Mild	42	52.50	25	31.25	13	16.25
Age 1	32	26.67	29	24.17	59	49.16
Age 2	55	45.83	36	30.00	29	24.17
Rural	56	46.67	31	25.83	33	27.50
Urban	17	14.17	44	36.67	59	49.16

- In the total sample, 27.08 % tribal girl students had low, 33.34 % had moderate and 39.58 % had high academic stress.
- In the Severe sample, 25.00 % tribal girl students had low, 30.00 % had moderate and 45.00 % had high academic stress.
- In the Moderate sample, 20.00 % tribal girl students had low, 47.50 % had moderate and 32.50 % had high academic stress.

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Figure- 1: Levels of Academic stress among tribal females



- In the Mild sample, 52.50 % tribal girl students had low, 31.25 % had moderate and 16.25 % had high academic stress.
- In the Age-I sample, 26.67% tribal girl students had low, 24.17 % had moderate and 49.16 % had high academic stress.
- In the Age-II sample, 45.83 % tribal girl students had low, 30.00 % had moderate and 24.17 % had high academic stress.
- In the Rural sample, 46.67 % tribal girl students had low, 25.83 % had moderate and 27.50 % had high academic stress.
- In the Urban sample, 14.17 tribal girl students had low, 36.67 % had moderate and 49.16 % had high academic stress.

CONCLUSION

The level of academic stress was high in total and sample sub-groups as compared to low and moderate levels.

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Acknowledgment

The author(s) appreciates all those who participated in the study and helped to facilitate the research process.

Conflict of Interest

The author(s) declared no conflict of interest.

How to cite this article: Prajapati, P. & Kumari, R. (2024). Prevalence of Academic Stress on Levels of Premenstrual Syndrome, Age and Region among Tribal Females of Ranchi District. *International Journal of Indian Psychology*, 12(3), 2170-2176. DIP:18.01.214.20241203, DOI:10.25215/1203.214