

ASSESSMENT OF PSYCHOSOMATIC SYMPTOMS OF MENSTRUATION AMONG ADOLESCENT GIRLS STUDYING IN SELECTED EDUCATIONAL INSTITUTES OF PUNE.

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Abstract : Background : Menstruation is a biological stress for females during their reproductive life. Anxiety ,lethargy household confinement ,blood loss, irregularity ,weakness, and several deep-rooted cultural taboos make menstruation a regular and nagging ,but inevitable event to many of them. Often a series of physical and emotional turmoils are observed in some particular group of females just prior to menstruation ,which are apparently vague, bizarre but troublesome.

The objectives of the study:

- To assess psychosomatic symptoms of menstruation among adolescent girls.
- To determine impact of menstruation and associated psychosomatic symptoms among adolescent girls.
- To find out the association between selected demographic variables and psychosomatic symptoms.

Research question : What are the psychosomatic symptoms of menstruation among adolescent girls?

Research methodology : The study design consisted of a descriptive approach with a descriptive survey design. the study population is selected adolescent

girls who are studying in particular chosen educational institutes at Pune. Stratified random sampling technique was adopted. The sample consisted of 150 adolescent girls.

Tools and Technique : The tool developed and used for data collection was self-administered questionnaire on psychosomatic symptoms of menstruation among adolescent girls having Section I, II, and III. Section I consisted of 10 items related to baseline proforma and Section II consisted of 18 items related to menstruation and related aspects and Section III consisted of 47 items to Menstrual Distress Questionnaire.

Validity and Reliability : The content validity of the tool was established by 13 people. The reliability of the tool was established by using Cronbach's alpha method. The reliability is $r=0.87$ was high and considered to be reliable and adequate.

Data gathering process : The data collection was done between 15/02/2010 to 26/02/2010. The subjects were selected using the stratified random sampling technique.

The investigator was introduced to the students by the class teachers. The letter containing brief details of the study and general instructions about solving tools was circulated among the students. The students were given the freedom to clarify their doubts , as required . After this, a written consent was taken from the subjects. The three tools were administered to the students. Assurance was given regarding confidentiality and maintained the conducive environment. The average time taken by the respondents to complete the questionnaire was approximately 60 minutes.

The major findings of the study.**Section I:** Description of baseline proforma

Most of the adolescents girls (39%) were in the age of 13 to 14 years of age ,majority of them (87%) were Hindu by religion ,(74%)had received sex education and source of information from their mothers ,books and magazines (39% &30% respectively).Most of them received sex education

regarding menstrual hygiene and child birth(36% & 37% respectively). Many of them (59%)were from nuclear family, majority of their (46%) family income was below Rs. 5000, and their father's occupations (36% & 35%) are business and service and most of their (76%)mother's occupations are housewives.

Section II: Description of menstruation and related aspects

Most of the adolescents girls (38.66%) had attained menarche at the age of 14 years, for majority of them (71.33%)had duration of 3-5 days of menstrual cycle. Many of them kept the record of menstrual cycle (66.66%) and the majority of them the interval between two periods were 16-30days. For many of them the amount of flow was normal (60%). Majority of them did regular exercises(70%) and communicated their problems(83.33%).

Section III : Assessment of psychosomatic symptoms and impact of menstruation.

The findings of the present study reveal that the psychosomatic symptoms among adolescent girls were pain (29.9%), negative affect (24.4%), behavioral change (19.4%), concentration (17.1%) was observed in many of them. Autonomic reactions (13.1%), arousal (10.7%), control (9.51%), and water retention (7.17%) was found in an average. Most of them were observed in 15 to 16 years of age (51.77%). 13 to 14 years, 17 to 18 years, 19 to 20 years was found in an average (41.13% ,45.39% ,34.75% respectively), and impact of psychosomatic symptoms of menstruation among adolescent girls were found (51.77%)as mild.

Section IV : Association between psychosomatic symptoms and selected demographic variables.

The findings of the present study reveal that the calculated value (chi-square =8.56, 9.83 respectively) of age (in years)of adolescent girls and age of menarche is greater then the table value (chi-square=7.815, and 7.81 respectively , df=3) at 0.05 level of significance . Hence there is association between the age of adolescent girls and age of

menarche in psychosomatic symptoms.

Key words : Psychosomatic symptoms , Menstruation, Adolescent girls.

Introduction : Adolescence is a transition period from childhood to adulthood and is characterized by a spurt in physical, endocrinal, emotional and mental growth with a change from complete dependence to relative independence. The period of adolescence for a girl is a period of physical and psychological preparation for safe motherhood. As the direct reproducers of future generations the health of adolescent girls influence not only their own health ,but also the health of future population .Almost a quarter of India's population comprises of girls below 20 years.⁽¹⁾

The influence of the menstrual cycle can be described under three important headings- the impact of the menstrual cycle on mood , behavior and cognition among normal women; the premenstrual syndrome and sub syndromes and finally, the influence of the menstrual cycle on symptoms among women with severe mental illness.⁽²⁾

Devi and Rao (1972) analyzed 115 cases of attempted suicide and reported that 64% had made their attempts when in the premenstrual or early menstrual phase. Data from the study indicated premenstrual suicidal period in 10% of 296 women studied. Suicidal ideation was more in younger women and was strongly associated with irritability ,mood swings and depression .There was also an association with water retention which probably has some implication in etiology .Also found that not only the premenstrual phase but also even the menstrual phase seemed to be associated with suicidal ideation.⁽³⁾

The other area that has been of increasing interest to researchers is the of psychosis occurring exclusively in the premenstrual period. Menstrual psychosis has been classified as—catamaran psychosis i.e. that occurring only during menstruation ,the premenstrual which occurs immediately

premenstrual or post menstrual ,mid cycle and epochal- i.e. switching of bipolar illness during a specific phase of the cycle. Studies have found a strong association between an ovulatory cycles, increasing estradiol levels and menstrual psychosis.⁽⁴⁾

Thus researcher felt that there is great need to considering the importance of menarche preparedness and mental health during menstruation among adolescent girls, this study is highlighting on psychosomatic symptoms associated with menstruation and its management.

Materials and Methods : A descriptive survey approach was chosen for the present study to find out the prevalence and interrelations of variables within a population among adolescent girls regarding the psychosomatic symptoms of menstruation.

The study sample comprised of 150 adolescent girls, that is 25,20,30,25,25, and 25 students from studying in selected educational institutes of Pune.

Stratified random sampling technique was used to select the sample .The stratification is done on the basis of standards of the study that is 7,8,9,10,11, and 12 female students making each strata. A simple random sampling technique was used to select the desired number of samples from each strata.⁽⁵⁾

INCLUSION CRITERIA :

1. Adolescent girls who have achieved menarche.
2. Adolescent girls are unmarried female of age group 13-19 years and studying in selected educational institutes of Pune.
3. Adolescent girls who are willing to participate in the study and who are present at the time of data collection.
4. Adolescent girls who can speak and understand either English ,Hindi or Marathi.

EXCLUSION CRITERIA:

1. Adolescent girls who have not achieved menarche.

2. Adolescent girls who are not willing to participate in the study and who are not present at the time of data collection.

The data collection was done between 15-02-2010 to 26-02-2010. The investigator was introduced to the students by the class teachers .The letter containing brief details of the study and general instructions about solving tools was circulated among the students. The students were given the freedom to clarify their doubts, as required. After this ,a written consent was taken from the subjects. The three tools were administered to the students. which was comprised of three sections ,demographic variables ,menstruation and related aspects ,menstrual distress questionnaire. The average time taken by the respondents to complete the questionnaire was approximately 60 minutes.

Result: I) Description of baseline sample characteristics among adolescent girls :

Average number of adolescent girls (39%) were in the age of 13 to 14 years of age ,majority of them (87%) were Hindu by religion ,(74%)had received sex education and source of information for their mothers ,books and magazines (39% &30% respectively).Most of them received sex education regarding menstrual hygiene and child birth(36% & 37% respectively). Many of them (59%)were from nuclear family, majority of their (46%) family income was below Rs. 5000, and their father's occupations (36% & 35%) was business and service and most of their (76%)mother's occupations was housewives.

II) Description of Menstruation and related aspects among adolescent girls:

The age of menarche at the age of 14 yrs (38.66%) had attained menarche at the age of 14 years, for majority of them (71.33%)had duration of 3-5 days of menstrual cycle. Many of them kept the record of menstrual cycle (66.66%) and the majority of them the interval between two periods were 16-30days. For many of them the amount of flow was normal (60%). Majority of them did regular exercises(70%) and communicated their problems(83.33%).

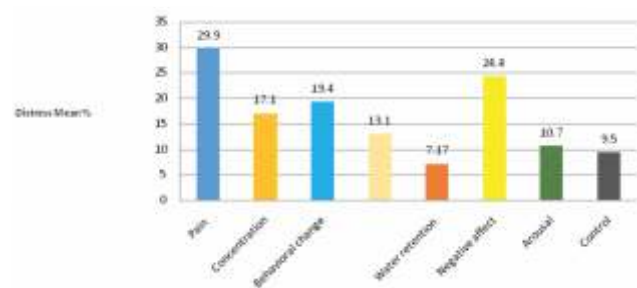
III) Assessment of psychosomatic symptoms of menstruation among adolescent girls:

Table 1 : Description of menstrual distress score among adolescent girls in frequency and percentage N=150

Sr. No.	Level of Score	Range of Score	F	%
1	Not present	0-42	137	88.66
2	Mild	42-84	13	11.33
3	Moderate	84-126	--	--
4	Severe	126-14	--	--

IV) Assessment of psychosomatic symptoms of menstruation among adolescent girls:

Figure 1: Bar diagram representing the area wise distress mean percentage:



IV) Other findings:

Table 2 : The association between psychosomatic symptoms. Of menstruation and selected demographic variables:

Sr. No.	Demographic variables	Calculated Value	d.f	Inference
1	Age	8.56	3	P<0.05 Significant
2	Income	2.76	3	P > 0.05 NS
3	Age of Menarche	9.83	3	P<0.05 Significant
4	Duration of menstrual flow	1.27	2	P > 0.05 NS
5	Amount of flow	3.59	2	P > 0.05 NS

Discussion : Most of the epidemiological studies found a positive correlation between the premenstrual dysphoric symptoms and the lifetime

major depressive disorder diagnosis.⁽⁵⁾ On the other hand, some studies showed that the premenstrual period is a risk period for associated psychiatric disorders exacerbation, as the obsessive-compulsive disorder, more severe alcohol intakes in case of alcoholism, symptoms increase in schizophrenics, or higher rates of suicide attempts. The premenstrual symptoms was considered for a long time an somatic disease , but now the psychiatric symptoms severity justifies most often the medical cares.⁽⁶⁾

Conclusion : Psychosomatic symptoms is a very common among adolescent girl , and they experience a number of behavioral change , change in concentration , irritability , anxiety , depression , pain in abdomen , and suicidal ideation. It is probable that this also affects their academic performance. The findings of this study thus indicate the enormity of the problem and the need for appropriate intervention through changed life style.

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