



Original Research Article

## Effectiveness of Valerian Tea in Premenstrual Syndrome among Adolescents in a Selected School at Erode

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### ABSTRACT

**Background:** Premenstrual syndrome is the most common of gynecologic complaints. It affects half of all female adolescents today and represents the leading cause of periodic college/school absenteeism among that population. **Objective:** To assess the effectiveness of valerian tea on Premenstrual syndrome among adolescents.

**Design:** A one group pre test and post test Pre experimental design was adopted for the study. Setting: Seventh Day Adventists School, Erode.

**Participants:** 30 adolescent girls with Premenstrual syndrome fulfilling the inclusion criteria were selected by convenient sampling.

**Methods:** A pre test was conducted by using premenstrual symptoms assessment scale. Immediately after pre test 100ml valerian tea was given two times a day for 7 days and again post test was conducted to assess the effectiveness of valerian tea. Collected data was analysed by using descriptive and inferential statistics.

**Results:** In pre test, the mean score of the sample was 72.12 (SD= 8.74) and the post test mean score was 40.21 (SD = 6.72) with Paired 't' value of 21.02. This showed that the valerian tea was effective in enhancing the practice of the sample regarding Premenstrual syndrome. There was a statistically no significant association found between the post test scores of the sample with their demographic variables.

**Conclusion:** The findings imply the need for educating adolescent girls on effective management of Premenstrual syndrome. Valerian decreased premenstrual symptoms, which it might be attributed to its antispasmodic effect.

**Key Words:** Effectiveness, Valerian, Premenstrual syndrome, adolescents.

### 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 influences not only their own health, but also the health of the future population. Almost a quarter of India's population comprises of girls below 20 years.

One of the major physiological changes that take place in adolescent girls is the onset of menarche, which is often associated with problems of irregular menstruation, excessive bleeding, and Premenstrual syndrome. Of these, premenstrual syndrome is one of the common problems experienced by many adolescent girls.

One of the major physiological changes that take place in adolescent girls is the onset of menarche, which is often associated with problems of irregular menstruation, excessive bleeding, and dysmenorrhea. Of these, dysmenorrhea is one of the common problems experienced by many adolescent girls.

Globally adolescents account for 1/5<sup>th</sup> of the population that is more than 1 billion. 4 out of 5 adolescents live in developing countries. According to Population Bureau in 1996, 30% of the total population was that of adolescents (284.02 million). Due to gradual decrease in the growth rate of the overall population, there is little increase in the number of adolescents in population projections till the year 2016 (Population projection 1996-2016) census of India.

The first menstrual period is called menarche. It usually starts between the ages 11 and 14. But it can happen as early as age 9 or as late as 15. Menarche is the sign of growing up. In the days before the periods start, the adolescent may feel tense or emotional, gain water weight and feel bloated, pain in the abdomen, back or legs that lasts few hours or more.

Premenstrual syndrome (PMS) is a common disorder of young and middle aged women characterized by cyclic occurrence

in the luteal phase of the menstrual cycle of a combination of distressing physical, psychological and behavioral changes of sufficient severity to result in deterioration of interpersonal relationships and/or interference with normal activities, which remit upon onset or immediately after menstruation.

Pre-menstrual syndrome (PMS) is recurrent variable cluster of troublesome physical and emotional symptoms that develop 7–14 days before the onset of menstruation and subsides when menstruation occurs. The PMS consists of low backache, fatigue, breast heaviness, abdominal bloating, increased weight, headache, irritability, skin disorders, aggressiveness, depression, gastrointestinal symptoms and loss of appetite.

Premenstrual syndrome (PMS) is a set of physical, emotional, and behavioral symptoms that occur a week before menstruation in most cycles. The physical symptoms are: breast tenderness or swelling; weight gain due to fluid retention; abdominal bloating; fatigue; dizziness; nausea and vomiting; acne or worsening of an existing skin disorders; muscle aches; pelvic heaviness; appetite change; constipation; headache and backache. The emotional symptoms are: insomnia; sadness; irritability; tension; anxiety; restlessness; loneliness and food cravings. There are also behavioral symptoms such as: difficulty concentrating; forgetfulness and social avoidance

### ***Statement of the Problem***

A study to assess the effectiveness of Valerian tea on premenstrual syndrome among adolescents in a selected school at Erode

### ***Objectives***

- To assess the premenstrual syndrome among adolescents before and after Valerian tea administration.

- To determine the effectiveness of Valerian tea on premenstrual syndrome among adolescents
- To find out the association between the post test scores of premenstrual syndrome among adolescents with their selected demographic variables.

## **MATERIALS AND METHODS**

### ***Research approach***

An evaluative approach was considered as the appropriate measure to evaluate the effectiveness of Valerian tea on premenstrual syndrome among adolescents.

### ***Research design***

Pre experimental one group pre test and post test was used

### ***Research setting***

The study was conducted in Seventh Day Adventists School, Erode.

### ***Sample***

The sample consisted of 30 adolescents girls with premenstrual syndrome and between the age group of 16 – 18 years

***Sampling technique:*** Non probability convenience sampling technique was used to select the sample

### ***Development of tool***

Section A: Socio demographic variables of the samples

Section B: Numerical pain intensity scale (1 to 3 = Mild pain, 4 to 6 = moderate pain,

7 to 9 = Severe pain, 10 = worst pain)

Section C: premenstrual symptoms assessment scale

### ***Plan for data analysis***

The data were analysed by using both descriptive and inferential statistics

- Back ground information of the subject were described by percentage distribution.
- Mean, standard deviation and paired 't' test was used to find the relationship between pre-test and

post test scores on dysmenorrhoeal symptoms among adolescents.

- Chi square test was used to find out the relationship between selected variables of adolescents with their post test scores.

## **RESULTS**

**Section A:** Most (57%) of the adolescents girls with dysmenorrhoeal symptoms were in the age group of 15 -16 years. However 87% of the adolescents girls attained menarche at the age of 14 years, 60% of adolescents girls belongs to nuclear family, 54% of adolescents girls were in irregular cycle, Most (57%) of adolescents girls were 5-7 days flow, 64 % of them had family history of premenstrual syndrome, 46 % of adolescents girls had decreased academic performance and 60% of adolescents girls had practice of home remedies.

**Section B:** In pre test 87% of them had severe pain and 13% of them had moderate pain whereas in post test 80% of them had Mild pain and 20 % of them had moderate pain. It shows that valerian tea was effective among adolescent girls with premenstrual symptoms.

**Section C:** In pre test 90% of them had Symptoms interfere with activity but it is not disturbing, 10% of them had Severe, disabling symptoms whereas in post test 80% of them had Mild symptoms not interfering with activities and 20 % of them had Symptoms interfere with activity but it is not disturbing.

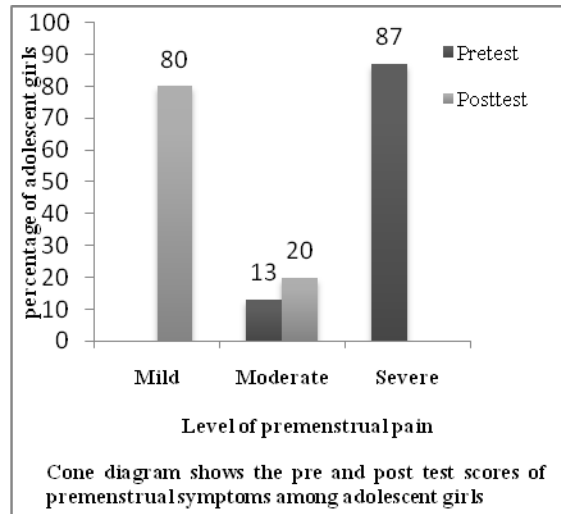
**Section D:** In pre test the mean score was 72.12 (SD= 8.74) and the post test mean score was 40.21 (SD = 6.72) which indicated a reduction of symptoms level of the adolescent girls after administration of valerian tea.

Paired 't' test value was computed to evaluate the effectiveness of valerian tea on premenstrual symptoms. The obtained value was 21.02, which was significant at 0.01

levels indicating the effectiveness of valerian tea.

**Section E:** Chi square was computed to determine the association between post test

scores of the respondents with their selected variables age, age at menarche, type of family, duration of menstrual cycle, type of flow and academic performance.



Level of premenstrual symptoms	Adolescents girls with premenstrual symptoms			
	Pre test		Post test	
	Frequency (n)	Percentage	Frequency (n)	Percentage
Mild symptoms not interfering with activities	-	-	24	80
Symptoms interfere with activity but it is not disturbing.	27	90	6	20
Severe, disabling symptoms	3	10	-	-

## DISCUSSION

- Highly significant difference found between pre test and post test scores of adolescent girls regarding premenstrual symptoms.
- Significant relationship was found between post test scores of the samples with their age (1 = 0.80), age at menarche (1 = 0.45), duration of menstrual cycle (1 = 0.02), type of flow (2 = 2.31), type of family (2 = 4.52) and academic performance. (2 = 0.47).

### Limitations:

The study was limited to 30 adolescents who were studying Seventh Day

Adventists School, Erode, who were willing to participate in the study. Sample selected for the pilot study were not considered as sample for main study.

## CONCLUSION

The findings imply the need for educating adolescent girls on effective management of Premenstrual syndrome. Valerian decreased premenstrual symptoms, which it might be attributed to its antispasmodic effect.

## RECOMMENDATIONS

On the basis of the findings of the study it is recommended that,

- An experimental study could be undertaken with the control group
- A large scale study can be carried out to generalize the findings.
- A similar study can be conducted to women.
- A similar study can be conducted by using other alternative therapies like acupressure, acupuncture and yoga.
- A comparative study can be conducted to evaluate the effectiveness of two different teaching methods.

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