

“A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge regarding premenstrual syndrome and its management among adolescent girls studying in a selected English medium high school at Bagalkot.”

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ABSTRACT

Background of the Study:

Adolescent stage is very important in the life of a girl, because in this stage physical, sexual and psychological maturity take place. The major landmark of puberty for females is menarche, the onset of menstruation, which occurs on an average between ages 12 and 13. The age of menarche is influenced by heredity, but in girls diet and lifestyle contribute as well. The timing of puberty can have important psychological and social consequences. There can be emotional and physical discomfort and associated problems with puberty. The start of menstruation is usually a mixture of excitement and anxiety. Premenstrual syndrome (PMS) is a symptom complex recognised primarily by cyclical changes associated with ovulatory cycles. It occurs 7 – 14 days prior to menstruation and spontaneously resolves after menstruation. Premenstrual syndrome is a common cause of sickness absenteeism from schools and interferes with the daily routine activities of adolescent girls. It is a common adolescent health problem with high prevalence and suffering, leading to loss of academic achievements. Hence the investigator felt the need to assess the **“THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING PREMENSTRUAL SYNDROME AND ITS MANAGEMENT AMONG ADOLESCENT GIRLS STUDYING IN A SELECTED ENGLISH MEDIUM HIGH SCHOOL AT BAGALKOT.”**

The Objectives of the Study:

1. To assess the existing knowledge of adolescent girls regarding premenstrual syndrome and its management.
2. To evaluate the effectiveness of structured teaching programme on knowledge regarding premenstrual syndrome and its management among adolescent girls.
3. To find out the association between the post-test knowledge scores of adolescent girls regarding premenstrual syndrome and its management with selected socio demographic variables.

Methods:

An evaluative approach with pre-experimental one group pre-test post-test design was used for the study to accomplish the objectives. The researcher himself developed a STP and structured questionnaire on disease aspect of premenstrual syndrome and its management. Reliability of the tool ($r=0.9032$) was tested by split-half technique. A sample of 50 adolescent girls was selected by proportionate stratified random sampling technique. The data collected before and after the administration of STP were analyzed using descriptive and inferential statistics.

Results:

Assessment of pre test knowledge of the adolescent girls reveals that majority (66%) of the adolescent girls had poor knowledge on premenstrual syndrome and its management. The total pre-test mean percentage of knowledge score was 33.04 percent with mean and SD 7.6 ± 2.04 where as post-test mean percentage of knowledge score was 82.09 percent with mean percent with mean and SD 18.88 ± 1.34 . Significance of difference between the pre-test and post-test knowledge scores was statistically tested using paired 't' test and it was found to be statistically significant at 0.05 level of significance [$t=33.91$, $p<0.05$].

The association between post-test knowledge scores of the adolescent girls and selected socio-demographic variables was tested statistically using chi-square test. There is significant association between post-test knowledge scores of the adolescent girls and socio demographic variables such as mothers educational status [$\chi^2=8.33, P, 0.05$] and year of study [$\chi^2=4.22, P<0.05$]. There is no significant association between post-test knowledge scores of the adolescent girls and socio demographic variables such as age, religion, type of family, father's occupation, mothers' occupation monthly income of family, age of attained

menarche and source of health information. Thus H_2 stated is accepted for demographic variables such as mothers' educational status and year of study and rejected for their other variables.

Interpretation and Conclusion:

The overall findings of the study revealed that there was highly significant increase in the knowledge of adolescent girls on premenstrual syndrome and its management after the administration of STP. Hence it is concluded that the STP was highly effective in improving the knowledge of adolescent girls.

Key words

Effectiveness; Structured teaching programme; Knowledge; Premenstrual syndrome; Management; Adolescent girls;

INTRODUCTION:

Adolescence is a transitional stage of physical and mental human development generally occurring between puberty and legal adulthood, but largely characterized as beginning and ending with the teenage stage. Adolescent is a person between the ages of 13 and 19. Puberty has been heavily associated with teenagers and the onset of adolescent development. Puberty is a period of several years in which rapid physical growth and psychological changes occur.¹

Adolescent stage is very important in the life of a girl, because in this stage physical, sexual and psychological maturity take place. The major landmark of puberty for females is menarche, the onset of menstruation, which occurs on an average between ages 12 and 13. The age of menarche is influenced by heredity, but in girls diet and lifestyle contribute as well. The timing of puberty can have important psychological and social consequences. There can be emotional and physical discomfort and associated problems with puberty. The start of menstruation is usually a mixture of excitement and anxiety.²

Premenstrual syndrome [PMS] was first described in 1931, after several decades of research it remains poorly defined. The natural history of PMS is not known, there are over 150 reported symptoms, and with no confirmatory laboratory test, providers are hesitant to initiate treatment. PMS is very common, occurring at some point in most women's reproductive lives, 2-10% of women have severe enough symptoms to disrupt productivity, interpersonal relationships and quality of life.³

Premenstrual syndrome (PMS) is a symptom complex recognised primarily by cyclical changes associated with ovulatory cycles. It occurs 7 – 14 days prior to menstruation and spontaneously resolves after menstruation.² PMS is a common cause of sickness absenteeism from schools and interferes with the daily routine activities of adolescent girls. It is a common adolescent health problem with high prevalence and suffering, leading to loss of academic achievements³.

NEED FOR THE STUDY

According to an article of advances in psychiatric treatment, Premenstrual syndrome can be broadly defined as any constellation of psychological and physical symptoms that will occur regularly in the luteal phase of the menstrual cycle remit for at least one week in the follicular phase and cause distress and functional impairment. There is no single precise definition of the syndrome but it is generally accepted that the symptoms should be at least moderate intensity and cause functional impairment, severe symptoms that are predominantly dysphoric and cause severe impairment referred to as premenstrual dysphoric disorder. Women with clinically significant premenstrual symptoms tend to have a specific symptom profile that recurs in each cycle but may vary in severity in response to environmental stressors or other health problems⁴.

Adolescence is a dynamic phase of development in the life of an individual. It is a period of transition between the childhood and the adulthood, characterized by physical, mental, emotional and social development. WHO considers, "Adolescence" to be the period between 10 and 19 years, which generally encompasses the time from the onset of puberty to the full legal age.⁵

According to the epidemiology of premenstrual syndrome globally women with premenstrual syndrome usually present both physical and mood symptoms. These are affecting approximately 20% to 30% of menstruating women. The average age at which women with premenstrual syndrome seek treatment is below 30 years⁴.

PROBLEM STATEMENT:

"A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge regarding premenstrual syndrome and its management among adolescent girls studying in a selected English medium high school at Bagalkot."

Objective of the Study:

4. To assess the existing knowledge of adolescent girls regarding premenstrual syndrome and its management.
5. To evaluate the effectiveness of structured teaching programme on knowledge regarding premenstrual syndrome and its management among adolescent girls.
6. To find out the association between the post-test knowledge scores of adolescent girls regarding premenstrual syndrome and its management with selected socio demographic variables.

Hypothesis:

H₁: There will be a significant difference between pre-test and post-test knowledge scores of Adolescent girls regarding premenstrual syndrome and its management.

H₂: There will be a significant association between post-test knowledge scores of Adolescent girls regarding premenstrual syndrome and its management with their selected socio-demographic variables.

METHODOLOGY

Research Approach: Evaluative Research Approach

Research Design: Pre experimental One group Pre-test Post-test design.

VARIABLES

Dependent Variable

Knowledge of adolescent girls regarding pre-menstrual syndrome and its management

Independent Variable

Structured teaching programme which is intended to improve the knowledge of adolescent girls regarding pre-menstrual syndrome and its management.

Setting of the Study

St. Anne's English medium high school, Vidyagiri, Bagalkot.

Population

Adolescent girls studying in English medium high schools of Bagalkot city

Accessible Population

Adolescent girls studying in St. Anne's English medium high school, Vidyagiri, Bagalkot.

Sample

A total of 50 Adolescent girls

Criteria for Selection of Sample

Inclusive criteria: The study includes, the adolescent girls who are;

- Available at the time of data collection,
- Willing to participate,
- Able to read and write English.

Exclusive criteria: The study excludes the adolescent girls;

- Sick at the time of data collection,
- Not able to cooperate during the time of data collection

Sampling Technique:

Simple random sampling techniques

DATA COLLECTION PROCEDURE

A structured knowledge questionnaire was developed by the investigator for assessing the knowledge of adolescent girls regarding pre menstrual syndrome and its management.

Description of the Tool

The structured questionnaire comprised of two parts.

Part I: Consists of items seeking information regarding socio-demographic characteristics of adolescent girls such as, age, , religion, type of family, mothers educational status, fathers occupation, mothers occupation, monthly family income, age at menarche, year of study, source of information .

Part II: Consists of 40 items pertaining to knowledge regarding pre menstrual syndrome and its management among adolescent girls.

It has two sections as mentioned below.

Section A: Consists of 23 items on disease aspects of pre menstrual syndrome.

Section B: Consists of 17 items on Management of pre menstrual syndrome.

RESULTS:**Part I: Description of socio-demographic characteristics of sample.****Part II: Assessment of Pre-test knowledge of the adolescent girls regarding premenstrual syndrome and its management.**

Section A: Assessment of the level of pre-test knowledge of adolescent girls.

Section B: Area wise mean, SD and mean percentage of pre-test knowledge scores.

Part III: Evaluation of the effectiveness of the STP on premenstrual syndrome and its management.

Section A: Comparison of level of knowledge of adolescent girls in pre-test and post-test.

Section B: Area wise effectiveness of the STP.

Section C: Testing of hypothesis.

Part IV: Association between post-test knowledge scores of adolescent girls regarding premenstrual syndrome and its management with selected socio-demographic variables.**Part II: Assessment of pre-test knowledge of the adolescent girls regarding pre menstrual syndrome and its management.****Section A: Level of pre-test knowledge of adolescent girls regarding pre menstrual syndrome and its management.****Table 1: Level of pre-test knowledge of adolescents girls regarding pre menstrual syndrome and its management.**

N=50

Level of knowledge	Range of scores	Number of respondents	Percentage (%)
Excellent	33 - 40	0	0
Good	25 - 32	0	0
Average	17 - 24	11	22
Poor	9 - 16	33	66
Very poor	0 - 8	6	12
Total	40	50	100

Assessment of the level of pre-test knowledge of the adolescent girls reveals that majority (66%) of the adolescent girls had poor knowledge, 22 percent of them had average knowledge level, 12 percent of them had very poor knowledge and there were no adolescents who had good and excellent knowledge regarding pre menstrual syndrome and its management.

Section B: Area wise mean, SD and mean percentage of pre-test knowledge scores of Adolescent girls.**Table 2: Area wise mean, SD and mean percentage of pre-test knowledge scores of adolescent girls.**

N=50

Section B: Area- wise effectiveness of the STP on disease aspect of pre menstrual syndrome and its management.

Table 4: Area wise mean, SD and mean percentage of the knowledge score pre-test and post-test. N=50

Knowledge area	Max. score	Pre-test (O ₁)		Post-test (O ₂)			Effectiveness (O ₂ -O ₁)	
		Mean ± SD	Mean ± n %	Mean ± SD	Mean ± %	Mean ± SD	Mean ± %	

Knowledge area	Max. Score	Mean	SD	Mean %
Disease aspect of pre menstrual syndrome	23	7.6	2.041	33.04
Management of pre menstrual syndrome.	17	6.12	2.33	36
Total	40	13.72	3.31	34.3

Disease aspect of pre menstrual syndrome	23	7.6±2.04	33.04	18.88±1.34	82.09	11.28±2.2	49.04
Management of pre menstrual syndrome.	17	6.1±2.33	36	14.98±1.37	83.06	8.02±2.70	47.18
Total	40	13.72±3.31	34.3	33±2.02	82.5	19.28±3.9	48.2

To evaluate the effectiveness of structured teaching programme a research hypothesis was formulated.

H₁: There will be a significant difference between post-test and pre-test knowledge scores of adolescent girls regarding pre menstrual syndrome and its management at 0.05 level of significance.

Table 5: Significance of the difference between the pre-test and post-test knowledge scores of the adolescent girls

N=50

Knowledge area	Test	Mean	SD	Mean Diff.	SD Diff.	Paired t-value	Table value
Disease aspect of pre menstrual syndrome	Pre test	7.6	2.04	11.28	2.24	35.17*	1.96
	Post test	18.88	1.33				
Management of pre menstrual syndrome	Pre test	6.12	2.33	8.86	2.7	20.78*	1.96
	Post test	14.98	1.37				
Total knowledge	Pre test	13.72	3.31	19.28	3.98	33.91*	1.96
	Post test	33	2.02				

*p<0.05

*Significant

PART IV: Association between the post-test knowledge scores of adolescent girls on pre menstrual syndrome and its management with selected socio-demographic variables.

To find out the association between the post-test knowledge scores of adolescent girls regarding pre menstrual syndrome and its management with selected socio-demographic variables a research hypothesis was formulated.

H₂: There will be a significant association between the post-test knowledge scores of adolescent girl regarding pre menstrual syndrome and its management with selected socio-demographic variables at 0.05 level of significance.

The hypothesis was tested using Chi-square test.

Table 6: Association between the post-test knowledge scores of adolescent girls and socio demographic variables

N=50

Sl. No	Socio-demographic variables	Df	Chi-square value	Table value	Level of significance
1.	Age	1	0.36	3.84	P>0.05 NS
2.	Religion	1	0.09	3.84	P>0.05 NS
3.	Type of Family	1	0.55	3.84	P>0.05 NS
4.	Mother's educational status	1	8.33	3.84	P<0.05 S

5.	Father's occupation	1	0.01	3.84	P>0.05	NS
6.	Mothers occupation	1	2.63	3.84	P>0.05	NS
7.	Monthly income of family	1	0.01	3.84	P>0.05	NS
8.	Age of attained menarche	1	0.01	3.84	P>0.05	NS
9.	Year of study	1	4.22	3.84	P<0.05	S
10.	Source of health related information	1	1.65	3.84	P>0.05	NS

Df – Degree of freedom

NS – Not significant

S – significant

Part II: Assessment of pre-test knowledge of the adolescent girls regarding pre menstrual syndrome and its management.

Section A: Level of pre-test knowledge of adolescent girls regarding pre menstrual syndrome and its management.

Findings of the present study showed that majority (66%) of the adolescent girls had poor knowledge, 12 percent of them had very poor knowledge and there were no adolescents who had good and excellent knowledge regarding pre menstrual syndrome and its management.

The findings of the present study are consistent with the study conducted by **Antai A.B, Udezi A, Ekanem E, (2004)** to assess the knowledge and prevalence of pre menstrual syndrome in female undergraduate students of the university of Calabar . A structured questionnaire was administered to a sample of 262 subjects residing in hostel of the university of Calabar, Neigeria. The results showed that female undergraduate students of university had poor knowledge about pre menstrual syndrome⁸.

Section B: Area wise mean, SD and mean percentage of pre-test knowledge scores of Adolescent girls.

The total mean percentage of the pre-test knowledge scores was 34.3 percent with mean and SD 13.72±3.31. Area wise mean percentage of knowledge scores was 33.04 percent in the area of 'disease aspect of pre menstrual syndrome with mean and SD 7.6±2.33. In the area of 'management of pre menstrual syndrome', the mean percentage was 36 percent with mean and SD 7.6±2.041. These findings reveal that adolescents had poor knowledge in both the areas; disease aspect of pre menstrual syndrome and its management.

Part III: Evaluation of the effectiveness of structured teaching programme.

Section A: Comparison of level of knowledge of adolescent girls in pre-test and post-test.

In the pre-test knowledge scores the majority (66%) of adolescent girls had poor knowledge, 22 percent of them had average knowledge, 12 percent of them had very poor knowledge and there were no adolescent girls who had good and excellent knowledge. Whereas in post-test 64 percent of the adolescent girls had excellent knowledge and 36 percent of them had good knowledge.

Section B: Area- wise effectiveness of the STP on disease aspect of pre menstrual syndrome and its management.

Comparison of mean percentage of the knowledge scores of the pre-test and post-test reveals an increase of 48.2 percent in the mean knowledge score of the adolescent girls after STP. Comparison of area

wise mean and SD of the knowledge scores in the area of 'disease aspect of pre menstrual syndrome' shows that the pre-test mean percentage of knowledge score was 33.04 percent with mean and SD 7.6 ± 2.04 where as post-test mean percentage of knowledge score was 82.09 percent with mean percent with mean and SD 18.88 ± 1.34 . This shows an increase of 49.04 percent in the mean percentage of knowledge scores of the adolescents.

C: Testing of Hypothesis

Significance of difference between pre-test and post-test knowledge scores of adolescent girls.

Paired 't' test was used to find out the significance of the difference between the pre-test and post-test knowledge scores of adolescent girls on '**pre menstrual syndrome and its management**'. Findings reveal that the difference between mean pre-test (13.72 ± 3.31) and post-test (33 ± 2.20) knowledge scores of adolescent girls found to be statistically significant at 0.05 level of significance [$t=33.91$, $p < 0.05$].

PART IV: Association between the post-test knowledge scores of adolescent girls on pre menstrual syndrome and its management with selected socio-demographic variables.

Findings reveal that there is significant association between post-test knowledge scores of the adolescent girls and socio demographic variables such as mothers' educational status and year of study. There is no significant association between post-test knowledge scores of the adolescent girls and socio demographic variables such as age, religion, type of family, father's occupation, mothers' occupation, monthly income of family, age of attained menarche and source of health information. Thus H_2 stated is accepted for demographic variables such as mothers' educational status and year of study and rejected for their other variables.

CONCLUSION

On the basis of the findings of the study, the following conclusions are drawn:

- Assessment of the level of pre test knowledge of the adolescent girls reveals that majority (66%) of the adolescent girls had poor knowledge, 12 percent of them had very poor knowledge and there were no adolescent girls who had good and excellent knowledge regarding pre menstrual syndrome and its management.
- A significant difference was found between the post-test and pre-test knowledge scores of adolescent girls. The study showed that the STP was highly effective in improving the knowledge of adolescent girls on pre menstrual syndrome.
- There is significant association between post-test knowledge scores of the adolescent girls and socio demographic variables such as mothers' educational status and year of study. There is no significant association between post-test knowledge scores of the adolescent girls and socio demographic variables such as age, religion, type of family, father's occupation, mothers' occupation monthly income of family, age of attained menarche and source of health information.

Recommendations

Based on the findings of the study the following recommendations are stated;

- A similar study can be undertaken with a large stratified sample including adolescent girls from selected English medium high school to generalize the findings.

- A similar study can be undertaken with a control group design.
- A study can be conducted to find out the prevalence of pre menstrual syndrome among adolescent girls.
- Manuals, information booklets and self-instruction module may be developed on pre menstrual syndrome and its management among adolescent girls.
- A study can be carried out to evaluate the efficiency of various teaching strategies like SIM, pamphlets, leaflets and computer-assisted instruction on pre menstrual syndrome and its management.
- A study can be conducted to assess the impact of pre menstrual syndrome on quality of life.

REFERENCES

1. Wikipedia, a free encyclopedia. Adolescence. Available from: URL: [http:// www.wikipedia.com](http://www.wikipedia.com) (accessed 3 Nov 2011).
2. Williams. The importance of adolescence. Available from: URL: [http:// www.google.com/the importance of adolescence](http://www.google.com/the importance of adolescence). (accessed 3 Nov 2011)
3. Marilyn J Hockenberry. Essentials of Paediatric Nursing. 7th Edition. Mosby Publications. Page no: 846-849.
4. Wyatt K, Dimmock PW, O'Brien PM. Premenstrual Syndrome. In: Barton S, ed. Clinical evidence. 4th issue. London: BMJ Publishing Group; 2000.
5. Wikipedia, a free encyclopedia. Premenstrual syndrome. Available from: URL: <http://www.wikipedia.com> (accessed 3 Nov 2011).
6. Carol A Henshaw. Premenstrual syndrome diagnosis etiology, assessment and management. Article of advances in psychiatric treatment .2007; 13; 139-146.
7. Yonkers KA, Obrien PM. Premenstrual syndrome. Lancet 2008; 371(9619); 1200-1210.
8. Mohammad Bakhshani, Nowroozi Mousavi, Khodabandeh. Prevalence and severity of premenstrual symptoms among Iranian female university students. Journal of Pakistan medical Association.2009; 59:205.