

A Study to Assess Effectiveness of Self- Instructional Module Regarding Knowledge of Premenstrual Syndrome Among Adolescent Girls in The Selected Rural Secondary Schools, U.P.

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Abstract:

Introduction: - Adolescence is the period beginning with the gradual appearance of secondary sexual characteristics at about 12 years and ending with cessation of somatic growth at about 20 years. PMS is characterized by a complex set of symptoms which include physical, psychological and behavioral changes of varying severity.

Materials & Methodology: - Evaluative approach and Quasi-Experimental research design are used. Study was conducted in selected secondary schools, UP. 50 samples and Purposive Sampling Technique used with Structured knowledge questionnaire.

Results: - Percentage distribution of the pre-test knowledge related what is the PMS (52.40%), Definition, Etiology, and incidence (46.40%), Clinical features and diagnosis (50%), Treatment and intervention (46%), Procedures (48%), and Surgeries (50.8%).

Percentage distribution of the post-test knowledge related what is the PMS (69.6%), Definition, Etiology, and incidence (67.2%), Clinical features and diagnosis (66.8%), Treatment and intervention (65.2%), Procedures (66%), and Surgeries (66.4%).

Total pre-test level of knowledge shows that 28% of the secondary school girls are having inadequate knowledge, 60% of the secondary school girls are having moderately adequate knowledge and 12% of the secondary school girls are having adequate knowledge.

Total post-test level of knowledge shows that 0% of the secondary school girls are having inadequate knowledge, 56% of the secondary school girls are having moderately adequate knowledge and 44% of the secondary school girls are having adequate knowledge.

Conclusion: As per the study findings, the level of knowledge was adequate only in 12% in the pre-test, whereas during post-test, the level of knowledge of study subjects was adequate among 44% and none of them was inadequate level of knowledge.

This study find that a SIM on selected aspects of menstrual disorders among adolescent girls was effective that are proven by association between pre and post test knowledge scores with selected demographic variables .

Keywords:- Knowledge, PMS, SIM, Adolescence,

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INTRODUCTION

The word Adolescent is derived from the Latin word 'Adolescence', which means to grow in to maturity. Adolescence is the period beginning with the gradual appearance of secondary sexual characteristics at about 12 years and ending with cessation of somatic growth at about 20 years¹

Adolescence is characterized by physical, psychological, and social changes. WHO has defined adolescence age range of 10 - 19 years. Adolescent girls constitute about 1/5th of total female population in the world. In India, adolescent girls account for a little more than one-fifth of the population (21.4%). Out of an estimated 200 million adolescents, girls account for slightly less than 100 million due to disproportionate sex ratio.²

Menstruation is a normal physiological phenomenon for females indicating her capability for procreation. However this normal phenomenon is not an easy one. It is often associated with some degree of sufferings and embarrassment. It is common observation that every woman does experience one or other type of menstrual problems in her lifetime. The prevalence of menstrual disorders has been recorded as high as 87%.³

In the Indian, the age of onset of menstruation or menarche is generally between 11- 15 years. Though, slight variations may occur according to the nutritional status, heredity pattern and climate difference. After menarche, there are a number of common menstrual disorders that the female adolescent may encounter, including dysmenorrhea, irregularities in menstrual flow and premenstrual symptoms. These may lead problems in academic excellence and achievements in sports and other extracurricular fields as well as loss of self image.⁴

Pre menstrual syndrome (PMS) can be defined as a recurrent disorder that occurs every month in the luteal phase of the menstrual cycle, and remits with the onset of menstruation. PMS is characterized by a complex set of symptoms which include physical, psychological and behavioural changes of varying severity. This can interfere with the lives of the affected, as well as their interpersonal relationships.⁵

OBJECTIVES:-

1. Assess the pre test knowledge of adolescent girls regarding selected aspects of menstrual disorders.
2. Assess the post test knowledge of adolescent girls regarding selected aspects of menstrual disorders.
3. Evaluate effectiveness of SIM on selected aspects of menstrual disorders among adolescent girls.

ASSUMPTIONS :

The study assumes that

1. Structured self administered module is an accepted method of guiding and improving the knowledge of adolescent girls.
2. Improvement in knowledge will enable the adolescent girls to build up healthy attitudes towards menstrual disorders.

HYPOTHESES:

- 1: H_1 : The mean post-test knowledge score on selected aspects of menstrual disorders of adolescent girls will be significantly higher than their mean pre test knowledge score.
- 2: H_2 : There will be significant association between the pre-test knowledge scores of adolescent girls and selected demographic variables.

METHODOLOGY:-

1. **RESEARCH APPROACH:** Evaluative approach.
2. **RESEARCH DESIGN:** Quasi-Experimental research design.
3. **VARIABLES UNDER STUDY:** Variables in this study were Self Instructional module is Independable variable and knowledge score is Dependable variable. Demographic Variables are follows: Age (in years), education of parents, occupation of parents, religion, age of menarche regarding premenstrual syndrome.
4. **SETTING OF THE STUDY:** This study was conducted in selected secondary schools, U.P.
5. **POPULATION UNDER STUDY :** Secondary school girls in the selected schools for main study from up.
6. **SAMPLE AND SAMPLING TECHNIQUE :** 50 samples and Purposive Sampling Technique.

Inclusion criteria

1. Adolescent girls who were study in schools.
2. Adolescent girls who were willing to participate in the study.

Exclusion criteria

1. Adolescent girls who were not willing to participate in the study.
2. Adolescent girls who were critically ill.
3. Adolescent girls who are not present at the time of data collection.

7. **DATA COLLECTION TOOLS AND TECHNIQUES:** Structured knowledge questionnaire.

8. **DEVELOPMENT AND DESCRIPTION OF STRUCTURED KNOWLEDGE QUESTIONNAIRE:** 30 multiple- choice question types items were prepared.

9. **CONTENT VALIDITY AND RELIABILITY:** Tools was assessed by Obtaining opinion from 09 experts. Reliability of the structured knowledge questionnaire was done and it was found to be $r = 0.84$.

10. **PILOT STUDY:** Pilot study was conducted on 10 samples.

11. **FINAL DATA COLLECTION PROCEDURE:** Final data was collected after obtaining administrative approval. Final data was collected from selected school of main study Shri Jawahar Inter School ,Maycha And for pilot study Children Bright Future Academy Raj Vatika , hatewa , Gautam Budh Nagar , Greater Noida. The sample size was 50.

12. **PLAN FOR DATA ANALYSIS :** Mean, median, SD, range of knowledge score. Chi – square test to find out association (of knowledge score) with selected socio demographic variables.

Major findings:- The data were analyzed and interpreted in terms of objectives formulated descriptive and inferential statistics were used for the data analysis.

Age in years:- 10% of the samples belonged to the age group 13-14 years of age, 40% of the samples belonged to the age group 15-16 years of age, 50% of the samples belonged to the age group 17 years and above.

Education of parents:- 20% of the samples were no formal education, 20% of the samples were primary education, 20% of the samples were secondary education, 20% of the sample were higher secondary education and remaining 20% of the samples were graduate and above.

Occupation of parents :- 50% of the samples were health professional workers, 50% of the samples

were GNM, 20% of the non – health professional workers.

Religion:- 30 % majority of the samples belonged to Hindu religion, 20% of the samples belonged to Muslim religion, 30% of the samples belonged to Christian religion and remaining 20 % of the samples belonged to other religion.

Age of menarche :- 30% of the samples equally belonged to less than 13 years, 40 % of the samples belonged to 13-16 years, 30% of the samples belonged to more than 16 years.

DESCRIPTION OF KNOWLEDGE SCORE OF THE SAMPLES:- 43%of the samples had possessed average knowledge, 31% of the samples had possessed good knowledge, 26% of the samples had poor knowledge. Mean score for knowledge level was 19.425 and median 20, with a SD 5.74.

ASSOCIATION BETWEEN DEMOGRAPHIC VARIABLES AND KNOWLEDGE:- There was significant association of knowledge regarding on use of premenstrual syndrome among secondary school girls in selected rural secondary school, Greater Noida with Educational of parents.

Level of knowledge was also significantly associated with samples age of menarche.

Discussion

In order to achieve the objectives of the study Evaluative research approach was adopted.

The purposive sampling technique was used to select the sample.

The data was collected from 50 regarding adolescent girls in selected rural secondary school

Greater Noida. The findings were discussed under the following sections.

Section–I: - Description of socio demographic variables in Frequency and percentage of distribution.

Table:Frequency and percentage distribution of adolescent girls according to demographic variables

Demographic variables	F	%	
Age in year	13-14 yrs	5	10%
	15 -16 yrs	20	40%
	17 yrs and above	25	50%
Education of parents	No formal education	10	20%
	Primary education	10	20%
	Secondary education	10	20%
	Higher secondary education	10	20%
	Graduate and above	10	20%

Demographic variables	F	%	
Occupation of parents	Health professional Worker	25	50%
	Non-Health Professional Worker	25	50%
Religion	Hindu	15	30%
	Muslim	10	20%
	Christian	15	30%
	Others	10	20%
Age at Menarche	Less than 13 Years	15	30%
	13- 16 Years	20	40%
	More than 16 Years	15	30%

Section–II: - Pre-test and post test percentage of different aspects (domains) of knowledge on regarding PMS among adolescent girls.

Domain	No. of questions	Min- Max score	Total score	Knowledge	
				Mean score	%
What is the PMS	5	1-5	131	2.62	52.40%
Definition, Etiology, and incidence	5	1-5	116	2.32	46.40%
Clinical features and diagnosis	5	1-5	125	2.5	50%
Treatment and intervention	5	1-5	115	2.3	46%
Procedures	5	1-5	120	2.4	48%
Surgeries	5	1-5	127	2.54	50.8%
Total score	30				48.93%

Table shows that they are having pre-test knowledge related What is the PMS (52.40%), Definition, Etiology, and incidence (46.40%), Clinical features and diagnosis (50%), Treatment and intervention (46%), Procedures (48%), and Surgeries (50.8%).

Section–III: - Total pre-test and post test level of knowledge on PMS among adolescent girls

Level of Knowledge	Number of Samples	Percentage
Inadequate	14	28%
Moderately adequate	30	60%
Adequate	6	12%

Table shows that 28% of the staff nurses are having inadequate knowledge, 60% of the staff nurses are having moderately adequate knowledge and 12% of the adolescent girls are having adequate knowledge.

Section–IV: - Comparison of mean scores between pre-test and post-test on knowledge of PMS among adolescent girls.

Components	Observation	Mean	Mean Difference	S.D.	't' value	Significance
What is the PMS	Pre-test	2.62	0.86	0.7827	7.77	Significant P<0.05
	Post-test	3.48				
Definition, Etiology, and incidence ^{Clinical} features and	Pre-test	2.32	1.04	0.6680	11.0	Significant P<0.05
	Post-test	3.36				
Treatment and diagnosis intervention	Pre-test	2.5	0.84	0.7384	8.04	Significant P<0.05
	Post-test	3.34				
Procedures	Pre-test	2.3	0.96	0.7548	8.99	Significant P<0.05
	Post-test	3.26				
Surgeries	Pre-test	2.4	0.9	0.6776	9.39	Significant P<0.05
	Post-test	3.3				
	Pre-test	2.54	0.78	0.8154	6.76	Significant P<0.05
	Post-test	3.32				

Table : Comparison of mean scores between pre-test and post-test knowledge on premenstrual syndrome among adolescent girls.

Components	Observation	Mean	Mean difference	S.D.	't'	Significance
Knowledge score	Pre-test	14.68	5.38	1.6413	23.18	Significant P<0.05
	Post-test	20.06				

The following conclusions were drawn based on the findings of the study:-

Percentage distribution of the pre-test knowledge related what is the PMS (52.40%), Definition, Etiology, and incidence (46.40%), Clinical features and diagnosis (50%), Treatment and intervention (46%), Procedures (48%), and Surgeries (50.8%).

Percentage distribution of the post-test knowledge related what is the PMS (69.6%), Definition, Etiology, and incidence (67.2%), Clinical features and diagnosis (66.8%), Treatment and intervention (65.2%), Procedures (66%), and Surgeries (66.4%).

Total pre-test level of knowledge shows that 28% of the secondary school girls are having inadequate knowledge, 60% of the secondary school girls are having moderately adequate knowledge and 12% of the secondary school girls are having adequate knowledge.

Total post-test level of knowledge shows that 0% of the secondary school girls are having inadequate knowledge, 56% of the secondary school girls are having moderately adequate knowledge and 44% of the secondary school girls are having adequate knowledge.

As per the study findings, the level of knowledge was adequate only in 12% in the pre-test, whereas during post-test, the level of knowledge of study subjects was adequate among 44% and none of them was inadequate level of knowledge.

Recommendations:-

A descriptive study can be done to find out the knowledge of premenstrual syndrome among secondary school girls

A similar study may be conducted to assess the knowledge, practice and awareness of premenstrual syndrome among secondary school girls.

Conflict of Interest: The authors declare no conflict of interest.

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REFERENCES

1. Registrar, General and Census commissioner. DHS Data; India: 1991-1999.
2. Jones WG. Population dynamics and their impact on adolescents in the ESCAP region. Asia-Pacific Population Journal. 1997; 12(3): 72-76.
3. Greene R, Dalton K. The premenstrual syndrome. The British Medical Journal. 1953; 1007-14.
4. Ricci J.V. The Genealogy of Gynecology. 2nd edition. Philadelphia: 1950; p.103.
5. Dorisnoel, Klinger, S.Sharran, O'Brien. Premenstrual syndrome Diagnosis and Intervention. The Nurse Practitioner. 1998; 23(9):40-56.

