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A STUDY TO ASSESS THE EFFECTIVENESS OF VIDEO-ASSISTED TEACHING PROGRAMME ON KNOWLEDGE REGARDING PREMENSTRUAL SYNDROME AMONG ADOLESCENT GIRLS STUDYING IN SELECTED NURSING COLLEGES OF INDORE

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ABSTRACT:

Premenstrual Syndrome is recurrence of symptoms during the luteal phase of menstrual cycle. An exploratory study to assess knowledge regarding Premenstrual Syndrome among adolescent girls studying in selected nursing colleges of Indore. Quantitative research approach with one group Pretest Posttest research design was adopted & Non-probability purposive sampling technique was followed to select 60 adolescent girls. The self-structured questionnaire was administered. The study findings revealed that the majority of the adolescent girls, 48 (80%) were from the age group of 21-23 years, 71.7% had monthly income of family rupees above 15001, maximum 46.7% adolescents were vegetarians, 65% adolescent girls were menstruation menarche between 11-12 years of age, 48.3% adolescent girls had a history of PMS, maximum subjects 61.7% previous knowledge regarding PMS, 43.5% adolescents got the information from their friends and family members. The significant association were found between age of adolescent girls in which 21-23 years age of adolescent had average knowledge and showed a chi-square value (x^2) = 6.336 was significant at 0.05 level as the $p<0.5=6.336$. So, it was concluded that premenstrual syndrome is characterized by the presence of both physical and behavioral symptoms that occur repetitively in the second half of the menstrual cycle and interfere with woman's life.

Key words: Premenstrual Syndrome (PMS), Premenstrual Dysphoric Disorder (PMDD).

INTRODUCTION

Premenstrual Syndrome is recurrence of symptoms during the luteal phase of menstrual cycle. Women are symptom-free between menstruation and ovulation and the symptoms fully disappear by the conclusion of the menstrual cycle. The symptoms are strong enough to significantly alter daily activities or interpersonal interactions. At least four of the preceding six menstrual cycles must have had them. **R.T. Frank** coined the **term "pre-menstrual tension" in 1931** and that the term "premenstrual syndrome" was first used by **Greene & Dalton in 1953[1]**. **According to American Psychiatric Association (APA)** premenstrual dysphoric disorder (PMDD) as a severe form of premenstrual syndrome (PMS) in which symptoms of anger, irritability, and internal tensions are prominent.

BACKGROUND OF THE STUDY

Upadhyay Manisha& et al. (2023)[2]. described the premenstrual syndrome (PMS) is a cyclic phenomenon occurring during the late luteal phase of the menstrual cycle. PMS is characterized by a group of physical, emotional, psychological symptoms of varying severity starting a week before the onset of the menstruation and ends after the onset of menstruation. Severe form of PMS is known as Premenstrual Syndrome Dysphoric Disorder (PMDD). PMS is one of the common menstrual disorders, affecting many young women. According to epidemiological survey 75% suffer from symptoms of PMS and 3–8% suffers from severe symptoms of PMS.

Ranjana Mandal & et al. (2017)[3]. India reported that a prevalence of premenstrual syndrome to be 20% in a general population and severe symptoms in 8%.

Sivagurunathan & et al. (2015)[4]. reported the study on adolescent are the young aged from 10-19 years, Worldwide, about 1.2 billion are adolescent who showed approximately one in every six person are an adolescent. In India about 243 million were adolescents that is about 21%.

NEED OF THE STUDY

According to epidemiologic surveys (2016)[5]. mentioned that over 80% of females have symptoms related to the premenstrual stage of the menstrual cycle during their reproductive years.

On the basis of above findings Investigator found that most of the adolescents have inadequate knowledge regarding premenstrual syndrome. As many adolescents those who are studying in the colleges may lack appropriate knowledge about Premenstrual syndrome which may affects their educational and personal life. Because of that issue researcher thought to provide knowledge regarding premenstrual syndrome through video-assisted teaching.

WHO (2023)[6]. reported that premenstrual syndrome is an unpleasant physical, psychological and behavioral changes and which may lead to negative impact on social relationships, work productivity and other social activities. The severe form of Premenstrual syndrome may lead to Premenstrual Dysphoric Disorder (PMDD). Premenstrual symptoms affected an estimated 90% of women of reproductive age, according to research. PMS prevalence rates in India have been observed to range from 14.3% to 74.4%. In India, the reported prevalence of PMDD has ranged from 3.7% to 65.7%.

PROBLEM STATEMENT

A study to assess the effectiveness of video-assisted teaching programme on knowledge regarding Premenstrual Syndrome among adolescent girls studying in selected Nursing colleges of Indore.

OBJECTIVES

1. To assess the pre-test knowledge score on premenstrual syndrome among adolescent girls.
2. To assess the post-test knowledge score on premenstrual syndrome among adolescent girls.
3. To assess the effectiveness of video assisted teaching on knowledge regarding premenstrual syndrome among adolescent girls.
4. To find out the association between pre-test knowledge score on premenstrual

syndrome among adolescent girls with their selected demographic variables.

HYPOTHESIS:

H_{01}- There will be no significant difference between pre-test knowledge score and post-test knowledge score on premenstrual syndrome among adolescent girls at the level of $P<0.05$.

H_{02} - There will be no significant association between the pre-test knowledge score of adolescent girls on knowledge regarding premenstrual syndrome with their selected demographic variables at the level of $P<0.05$.

H_1 - There will be significant difference between pre-test knowledge score and post-test knowledge score on premenstrual syndrome among adolescent girls at the level of $P<0.05$.

H_2 - There will be significant association between the pre-test knowledge score of adolescent girls on knowledge regarding premenstrual syndrome with their selected demographic variables at the level of $P<0.05$.

CONCEPTUAL FRAMEWORK:

The conceptual framework for the present study conceptualized on Imogene king goal attainment theory that is used universally for research, education & practice. The model focused on the process whereby individuals interact to mutually set goals that result in goal attainment. In the present study, the interaction took place between the investigator and adolescent girls who are studying in selected nursing college of Indore city.

METHODOLOGY

Research approach- Quantitative research approach.

Research design- One group pre-test & post-test research design.

The population

Adolescent girls study at selected nursing colleges of Indore.

Sampling technique

Non-probability purposive sampling technique

Sample size
60 adolescent girls

The research setting
Nursing Colleges of Indore.

DEVELOPMENT OF TOOL & DESCRIPTION OF TOOL

Structured knowledge questionnaire consists of the following sections:

Section-A : Demographic variables

First section consists of 7 items for obtaining the information about socio-demographic factors such as age of the adolescent , type of family, type of diet, education, family income (monthly) and previous knowledge regarding premenstrual syndrome.

Section-B : Self-structured questionnaire

It consisted 20 items regarding premenstrual syndrome.

VALIDATION OF THE TOOL

The video and structured knowledge questionnaire was submitted to six experts along with the blue print and criteria check list and answer key to establish the content validity. The experts were from the field of obstetrics and gynaecological nursing, one statistician. There was 100% agreement on all items but suggestion was given to modify some points. The criteria for rating scale had two categories like “Agree”, “Disagree” and Remark/Suggestion column to find out the appropriate and relevance of the content.

RELIABILITY OF THE TOOL

The reliability of the tools was tested using Spelt-half Method with correlation. The tool consisted of 20 questions. The correlation coefficient ‘r’ obtained was 0.698. Being split half, a Spearman-Brown Prophecy formula was used ‘r’ was calculated. $r'=2r / 1+r$, according the r’ value obtained was **0.822** that the tool was reliable.

PROCEDURE FOR DATA COLLECTION

The data was collected from 60 adolescent girls who fulfilled the inclusion criteria between dates 23rd January to 31st January 2024. The investigator established rapport and obtained an informed written consent after explaining the importance and purpose of the study. Adolescent girls were selected by non- probability purposive sampling.

Pre-test questionnaire was administered to adolescent girls data was collected by structured questionnaire method. Average time taken for pre-test was 25-30 minutes. Video-assisted teaching was given to the adolescent girls. The average time taken was 35-40 minutes.

Post-test was obtained on 7th day after the pre-test by administering the same questionnaire. The average time taken for the post test was 25-30 minutes.

RESULT

The data is organized and presented under the following sections-

Section- 1: Frequency & Percentage distribution of adolescent girls according to demographic variables

Table 1 shows the following sections-

Age- The majority of the adolescent girls, 48 (80%) were between 18-20 years and only 8 (13.3%) were in the age group of 24 years and above were from the age group of 21-23 years 4 (6.7%). Most of the adolescents were in the age group of 21-23 years. **Monthly family income-** maximum 43 (71.7%) of subjects had their family monthly income above 15001 and none of the monthly family income was below 5001-10000. About 17 (28.3%) had their family monthly income 10001-15001 and none of the adolescent girls were having a monthly family income less than Rs. 5000 per month. **Type of diet-** 28 (46.7%) adolescents were vegetarians; 20 (33.3%) were mixed; 8 (13.3%) were non-vegetarians; and 4 (6.7%) were eggetarians. Most of the adolescent girls were vegetarians, followed by mixed diet. **Age of first menstrual cycle-** None of the adolescent girls first menstrual cycle before 10 years of age; 39 (65%) adolescent girls were menstruation menarche between 11-12 years of age; and 21 (35%) adolescent girls were menarche between 13-14 years of age. Most of the adolescent girl's menstrual menarche between 11-12 years of age. **History of premenstrual syndrome-** 31 (51.7%) adolescents had no previous history of premenstrual syndrome, while 29 (48.3%) adolescent girls had a history of premenstrual syndrome (PMS). Most of the adolescent girls did not have any previous history of premenstrual syndrome.**Previous knowledge regarding premenstrual syndrome- maximum** subjects 37 (61.7%) did not had have any idea regarding premenstrual syndrome and lowest 23 (38.3%) had some knowledge.

Source of knowledge- 10 (43.5%) adolescents got the information from their friends and family members; 7 (30.4%) adolescents got the information about premenstrual syndrome from mass media; and 6 (26.1%) adolescent girls got the information from healthcare providers. Most of the adolescent girls got the information about premenstrual syndrome from their friends and family members.

Frequency and percentage distribution of adolescent girls according to pretest knowledge score

Section 2 deals with the assessment of knowledge level among adolescent girls scoring for assessment of knowledge regarding premenstrual syndrome, were Poor, Average, Good, and Excellent.

Table No. 1 **PRE-TEST KNOWLEDGE (N=60)69**

Knowledge	Grade	Frequency	Percentage	Mean score	SD
0-5	Poor	0	0.0%	7.62	1.19
6-10	Average	58	96.7%		
11-15	Good	2	3.3%		
15-20	Excellent	0	0.0%		

Table 1 depicts that majority of samples scored poor knowledge i.e 0 (0.0%) and 58 (96.7%) had average knowledge and 2 (3.3%) had obtained good knowledge grade.

Distribution of adolescent girls according to post-test knowledge score

Section 2 deals with the assessment of knowledge level of among adolescent girls scoring for assessment of knowledge regarding premenstrual syndrome, were Poor, Average, Good, and Excellent.

Table No. 2 **(N=60)**

Knowledge	Grade	Frequency	Percentage	Mean score	SD
0-5	Poor	0	0.0%	13.60	0.76
6-10	Average	0	0.0%		
11-15	Good	60	100%		
15-20	Excellent	0	0.0%		

In above table all 60 (100%) adolescent girls had obtained good knowledge, showed increase in knowledge regarding premenstrual syndrome with the help of video-assisted teaching programme among adolescent girls.

POST-TEST KNOWLEDGE

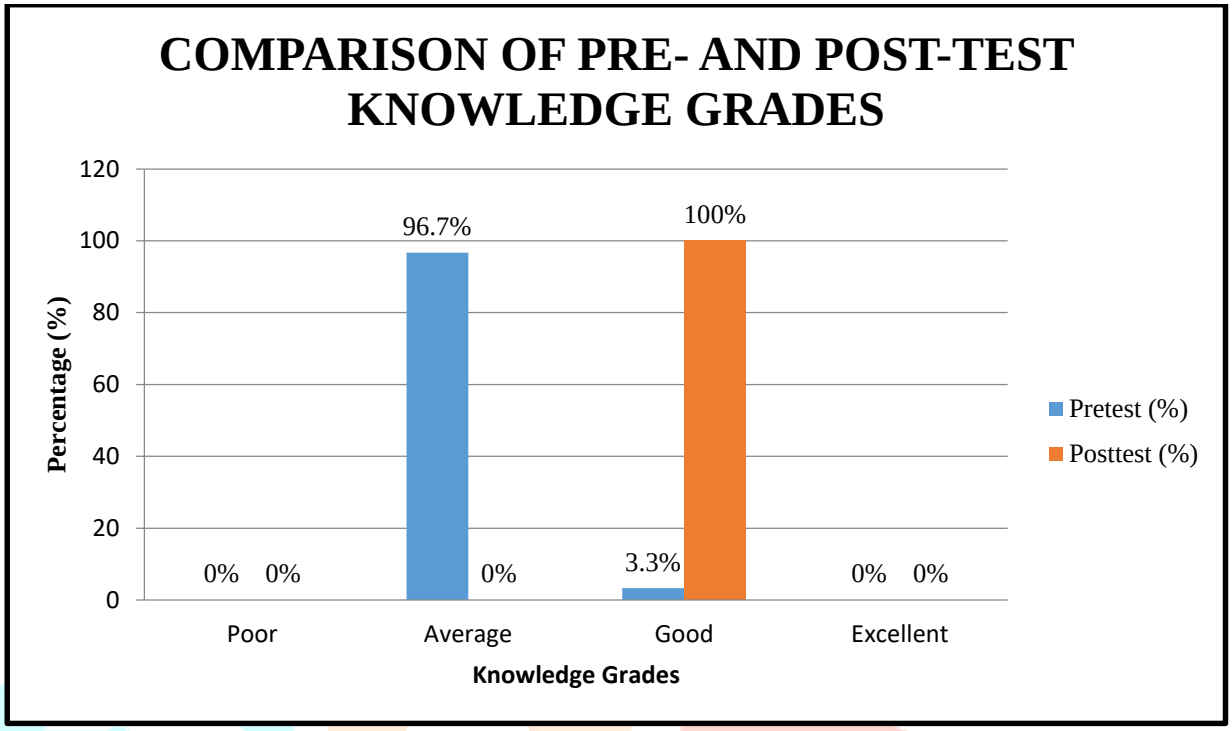
Mean score of knowledge level, mean difference, S.D. and 't' value of adolescent girls

Table No. 3 **(N=60)**

S.No.	Knowledge Score	Mean score of knowledge level	Mean difference	S.D.	't' value, df
1.	Pretest	7.62	59	1.19	-37.739, df=59
2.	Post-test	13.60		0.76	

P<0.05* P<0.01 P<0.001*****

The table depicted that mean knowledge score of adolescent girls of was 7.62 and post-test mean knowledge score was 13.60. Mean difference in between pre-test knowledge and post-test knowledge was 59 and 1.19 and 0.76. The computed paired 't' test value showed that there is significant difference between pre-test and post-test knowledge score (t=-37.739,p<0.05 level. The mean post-test knowledge score was significantly higher than the mean pre-test knowledge score. Thus, the video-assisted teaching programme was helpful in improving the knowledge of these adolescents.



The bar diagram shows the comparison of pre-test and post-test knowledge grade

FINDINGS OF THE STUDY

A- Findings regarding knowledge score of adolescent girls regarding premenstrual syndrome

Most of subjects- 48 (80%) were in the age group 21-23 years.

The findings showed that adolescent girls had some knowledge regarding premenstrual syndrome. The total mean score of pre-test was 7.62. This shows that there is some knowledge deficit. The mean pre-test showed that most of the adolescent girls 58 (96.7%) had average knowledge regarding premenstrual syndrome.

B- Association between pre-test knowledge score and selected demographic variables

In order to find the relationship between pre-test knowledge and selected demographic variables chi-square test was used. The findings revealed that there is no significant relationship between monthly income, diet, history of premenstrual syndrome, previous knowledge, and source of knowledge of premenstrual syndrome with the pre-test knowledge score. The reason for non-significant relationship with pre-test knowledge score and selected variables may be because of limited sample size i.e. sixty and non-probability purposive sampling technique and was found to be significant with the age i.e $X^2 = 6.336$ at the level of $p<0.05$.

The findings of the study showed that the mean post-test knowledge score (7.62%) was significantly higher than mean pre-test knowledge score (13.60%). Thus finding suggests that video-assisted teaching was very effective.

Further to know the statistical significance between pre-test and post-test knowledge score‘t’ test was computed. The‘t’ test value (t_{60}=-37.739, $p<0.05$ level) showed that there was significant difference between pre-test and post-test knowledge score.

LIMITATIONS OF THE STUDY

1. The findings of the study cannot be generalized because of the small size (60) and non-probability purposive sampling technique.
2. The study was limited to the adolescent girls studying in selected college of Indore city

3. The age limit was 17-24 year.
4. No attempt was made to measure the retention of knowledge after the post-test i.e. feedback due to time shortage.

SUMMARY

The summary of the study includes the objectives, hypothesis etc. Researcher had adopted a strategy to improve the knowledge regarding premenstrual syndrome among adolescent girls. Video-assisted teaching is one method which was adopted to impart knowledge to adolescent girls regarding premenstrual syndrome.

Need of knowledge regarding premenstrual syndrome to increase the knowledge of adolescent girls regarding premenstrual syndrome.

The study made use of quantitative research approach with one group pre-test and post-test design. The population of the study consisted of adolescent girls studying in selected nursing colleges of Indore city. Non-probability purposive sampling technique was used to select 60 adolescent girls based on the certain predetermined criteria.

- Pre-test mean knowledge score of adolescent girls regarding premenstrual syndrome was (7.62) and post-test mean knowledge score was (13.60).
- Video-assisted teaching programme is an effective method of improving knowledge of adolescent girls regarding premenstrual syndrome.
- There was no significant relationship between pre-test knowledge score and selected variables like monthly family income, type of diet, age of first menstrual cycle, previous history of premenstrual syndrome, knowledge regarding premenstrual syndrome there was significant relation at $X^2 = 6.336$, $p<0.05$. Age of adolescent girls influences the knowledge score of adolescent girls. Therefore, it could be concluded that video-assisted teaching programme can help in improving the knowledge of patient and family member and could be used in various settings.

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