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A STUDY TO ASSESS THE EFFECTIVENESS OF VIDEO ASSISTED TEACHING MODULE ON LEVEL OF PAIN AND KNOWLEDGE REGARDING DYSMENORRHEA AND ITS MANAGEMENT AMONG SCHOOL GOING ADOLESCENT GIRLS IN SANATAN DHARM INTER COLLEGE, DEHRADUN, UTTARAKHAND.

Health Science

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ABSTRACT

Menses refers to the normal flow of blood that occurs as a part of woman's monthly cycle. The term dysmenorrhea is used to indicate "painful menstruation". Dysmenorrhea is one of the most common conditions of female reproductive system irrespective of age. Educating adolescent girls about dysmenorrhea, associated symptoms, causes, management and related health problems is important as they are the light bearer for the upcoming generation of the health care providers. **Objectives-** To assess the level of pain during menstruation and knowledge regarding dysmenorrhea among school going adolescent girls in selected school of Dehradun with a view of providing them with video assisted teaching module. **Methodology-** A quantitative research approach with pre-experimental research design was used to assess the knowledge and level of pain regarding dysmenorrhea among school going adolescent girls. The research design selected was pre-experimental sampling, purposive technique was used. The study was conducted in 60 subjects in Sanatan Dharm Inter college, Dehradun. The self structured questionnaire was used as a tool for data collection. The research tool consists of three section. Section A includes demographic variable, section B includes personal data, and section C includes self-structured knowledge questionnaire tool to measure the knowledge regarding dysmenorrhea. The collected data was analyzed and interpreted by using pre-experimental and inferential statistics. **Result-** The result shows in pre-test the mean score was 8.6166±4.70 whereas post-test mean score was 12.0166±4.71.The t value was found 8.229 which is table value to be 1.86. Calculated t value > tabulated t value. p>0.05 which implies there is significant effect of video assisted teaching module on knowledge regarding dysmenorrhea in school going adolescent girls in selected school of Dehradun. Thus, the null hypothesis was rejected. **Conclusion-** There is a significant improvement in level of knowledge regarding dysmenorrhea among school going adolescent girls of Sanatan Dharm Inter College, Dehradun.

KEYWORDS

Assess, Dysmenorrhea, knowledge, Pain, adolescent, video assisted teaching module.

INTRODUCTION

"I think that more women experience these symptoms than [they] will admit, because we don't want to be seen as the weaker sex. The truth is that menstruation (as well as childbearing) has have a significant effect on our bodies…. But there is not enough empathy or understanding for the physical price we pay."

Menses or period is the normal flow of blood that occurs as a part of woman's monthly cycle. Normally, every month woman's body prepares itself for pregnancy. When pregnancy doesn't occur the uterus shed its lining which flows out through the vagina as menstrual blood. The menstrual flow is combination of blood and uterine tissues.[1]

The menstrual cycle occurs due to the periodic rise and fall in the hormones. The menstruation phase in menstrual cycle occurs due to the fall in the progesterone level and it indicates that the pregnancy has not taken place. [2]

The term dysmenorrhea is used to indicate "painful menstruation". It is characterized into primary and secondary menstruation. When menstrual pain starts from menarche or occurs due to any unknown cause it is called primary menstruation. When menstrual pain is caused due to any disorders of female reproductive system it is called secondary dysmenorrhea. [3]

In primary dysmenorrhea the woman's uterus produces some chemicals (prostaglandin) similar to hormones that cause the strong muscle contraction of the uterus, which results in severe pain. The most common type of prostaglandin produced is F2X, other than that different types of prostaglandins are produced. [4]

Painful menstruation can be experienced by woman of any age and some of them experience no pain after getting pregnant and delivering a baby. The estimation of the women in the reproductive age affected from dysmenorrhea varies from 20% to 90%. Dysmenorrhea is the most commonly occurring menstrual disorder. In most cases, it occurs within a year after menarche which shows improvement with age or after child birth. [5]

Dysmenorrhea is one of the most common conditions of female reproductive system irrespective of age. It is one the most common cause of pelvic pain in menstruating females. It's prevalence can vary from 16% to 91% in surveyed individuals, with experiencing severe pain in 2% to 29% during menses. Majority of cases reported of dysmenorrhea among young females in their early 20s with report of usually declining pain with age. The prevalence of adolescent females suffering from dysmenorrhea is 67.2% to 90%. According to studies it has been proven that there is no significant difference in individual of different race with dysmenorrhea. According to another study 36.4% of complaints of dysmenorrhea were among the individual of lower age and parity. It is believed that after child birth menstrual pain usually decreases but this doesn't always occur. A study showed that dysmenorrhea in individuals with no child has shown significant decrease after age 40 or above.[6]

Objectives

- To assess the level of pain during menstruation among school going adolescent girls in selected school of Dehradun, Uttarakhand.
- To assess the pre test knowledge on dysmenorrhea among school going adolescent girls in selected school of Dehradun, Uttarakhand.
- To assess the post-test knowledge on dysmenorrhea among school going adolescent girls in selected school of Dehradun, Uttarakhand.

- To assess the effectiveness of video assisted teaching module among school going adolescent girls in selected school of Dehradun, Uttarakhand.
- To determine the association of knowledge with demographic variables on dysmenorrhea among school going adolescent girls in selected school of Dehradun, Uttarakhand.

MATERIALS AND METHODS

Type Of Research Design:

Quantitative approach, Pre experimental research design with one group pre and post test control design.

Procedure.

The approval for study conduction was acquired from the respective authorities of Sanatan Dharam Inter College, Race Course, Dehradun as well as from State College of Nursing, Dehradun. After obtaining all the approvals, the researcher provided an explanation regarding the study to the students and also answered all the relevant questions relating to the study. The researchers then took an informed consent from the students and were later instructed to fill the questionnaires within 2 hours. A final sample of 60 participants was acceptable.

The researchers instructed the students to submit the questionnaire and were later provided a class regarding dysmenorrhea and were followed by a post test that was conducted 20 days after the conduction of main study. Each participant was thanked later and provided with a reward for their co-operation.

Sample Design.

Non-probability purposive sampling technique was used for selecting the samples. sample size in this study was 60 adolescent girls experiencing dysmenorrhea.

Inclusion Criteria

- Adolescent girls experiencing dysmenorrhea
- Adolescent girls who were willing to participate in the study
- Adolescent girls, who were able to read, write and understand English or Hindi
- Adolescent girls who were available at the time of data collection

Exclusion Criteria-

- Adolescent girls who did not experience dysmenorrhea
- Adolescent girls who were not willing to participate in the study
- Adolescent girls, who were not able to read, write and understand English or Hindi
- Adolescent girls who were not available at the time of data collection
- Adolescent girls who were available at the time of pilot study

Tool Used

"Self-structured questionnaire on dysmenorrhea" was the instrument used to assess the knowledge regarding dysmenorrhea among school going adolescent girls and another is "demographic tool". Also, a "visual analogue scale" was used to assess the level of pain of school going adolescent girls experiencing dysmenorrhea.

Part I- Demographic tools

Part II-Self-structured questionnaire

Part III- Visual analogue scale

The research instruments were developed under the guidance of invigilator.

First Draft-

First draft was formulated in English language, which was later translated in Hindi language which was verified by 03 experts in the field of medical surgical, mental health and child health nursing. Some questions were considered inappropriate by experts, which were further modified accordingly in second draft.

Second Draft-

The second draft was used in pilot study. The invigilator selected 06 adolescent girls experiencing dysmenorrhea for pilot study and data was collected before and after implementation of video assisting teaching module. The data was analyzed and no irrelevant item was found. Later third and final draft was formulated

Third draft

This draft was used for the final study and is given in appendix.

Description Of Tool-

Section A

It consists of 11 items on demographic variables on dysmenorrhea among school going adolescent girls.

Demographic variables were:

- Age
- Class
- Residence
- Type of family
- Food habits
- Family income
- Source of information
- Age of menarche
- Regularity of menstruation
- Frequency of PMS

SECTION B

It consists of 21 self structured knowledge questionnaire regarding dysmenorrhea among school going adolescent girls. Section B further consists of questions regarding menstruation, dysmenorrhea and type of dysmenorrhea, causes, symptoms and management of dysmenorrhea by pharmacological and non-pharmacological methods.

The structured questionnaire is of multiple choices consisting of four options for each question. Only one option is correct. For each correct answer, the score of 1 was given, and for incorrect answer, the score 0 was given. The highest score was 21.

Based on the percentage gained, the knowledge of the respondents was grouped into following categories:

I. Test Retest Formula (Karl Pearson's Correlation Coefficient Formula)-

$$r = \frac{N\sum XY - (\sum X)(\sum Y)}{\sqrt{N\sum X2 - (X)^2}\ \sqrt{N\sum Y2 - (\sum Y)^2}}$$

Methods Of Data Analysis

The data was analyzed in term of descriptive (Mean, Percentage, Standard deviation) and inferential statistics (paired't' test and chi square test) as follows:

Descriptive Statistics-

- Frequency and percentage distribution would be used for analyzing demographic variables.
- Mean and Standard deviation would be used for analyzing pre test and post test knowledge score regarding dysmenorrhea.

Inferential statistics-

- Paired' t' test would be used to assess the effectiveness of video assisted teaching module on dysmenorrhea.

Chi square would be used to find out the association between the pre test knowledge and with the selected demographic variables.

Ethical Clearance:

Institutional ethics committee clearance was obtained before the commencement of the study.

Findings.

The result shows in pre-test the mean score was 8.6166±4.70 whereas post-test mean score was 12.0166±4.71.The t value was found 8.229 which is **table value to be 1.86.** Calculated t value > tabulated t value. p>0.05 which implies there is significant effect of video assisted teaching module on knowledge regarding dysmenorrhea in school going adolescent girls in selected school of Dehradun.Thus, the null hypothesis was rejected.

Table 1: Frequency And Percentage Distribution Of Samples According To Demographic Variables

Variables		Fequency(F)	%
Age	12 years	02	3.33
	13 years	03	6.67
	14 years	11	18.33

	15 years	27	45
	16 years	09	15
	17years	07	11.67
Class	7th	05	8.33
	8th	05	8.33
	9th	17	28.33
	10th	21	35
	11th	08	13.33
	12th	04	6.67
Residence	RURAL	07	11.67
	URBAN	53	88.33
Type of family	NUCLEAR FAMILY	28	46.67
	JOINT FAMILY	23	38.33
	EXTENDED FAMILY	01	1.67
	SINGLE PARENT	08	13.33
Food habits	VEGETARIAN	34	56.66
	NON-VEGETARIAN	16	26.67
	EGGETARIAN	10	16.67
	VEGAN	0	0
Income of the family	<5,000	26	43.33
	5,000-10,000	21	35
	10,000-15000	07	11.67
	>15,000	06	10
Regular Menstruation	Yes	45	75
	No	15	25

Table 2: Association Between Pre-test Levels Of Knowledge Among School Going Adolescent Girls Experiencing Dysmenorrhea With Selected Demographic Variables

Variable	Good Score	Average Score	Poor Score	Degree of freedom (Df)	Chi square value	P - value	Inference
Age (in years)							
12 years	0	0	2	10	18.76	>18.31	S
13 years	0	1	3				
14 years	1	6	4				
15 years	0	10	17				
16 years	2	6	1				
17 years	0	6	1				
Total	3	29	28				
Type of family							
Nuclear	2	10	16	06	8.594	<12.59	NS
Joint	0	18	10				
Extended	0	0	1				
Single Parent	1	6	1				
Total	3	29	28				
Income (INR)							
<5,000	0	10	16	06	9.05	<12.59	NS
5,000-10,000	2	13	6				
10,000-15,000	1	2	4				
>15,000	0	4	2				
Total	3	29	28				
Residence							
Rural	0	4	3	02	0.5309	<5.99	NS
Urban	3	25	25				
Total	3	29	28				

Significant at 0.05 level S = Significant NS = Not-Significant

The table 4.12 shows chi square value for age (χ^2 = 18.76), type of family (χ^2 =8.595), income (χ^2 =9.05), residence (χ^2=0.5309). The obtained P value for age is p<0.05 which indicates there is significant relation between knowledge of dysmenorrhea for the school going adolescent girls experiencing dysmenorrhea with age. Hence, the null hypothesis is rejected.

Comparison Of Overall Knowledge Score (N=60)

Variable	Group	Mean ± SD	Mean difference	't' value
Knowledge	Pre-test	8.6166±4.70	3.4	8.229 df=59 P>0.05 doubt
	Post-test	12.0166±4.71		

Table 4.11 describes the difference of the pre-test and post-test knowledge score of school going adolescent girls regarding dysmenorrhea. In pre-test the mean score was 8.6166±4.70 whereas post-test mean score was 12.0166±4.71.The t value was found 8.229 which is **1.86.** Calculated t value > tabulated t value. p>0.05 which implies there is significant effect of video assisted teaching module on knowledge regarding dysmenorrhea in school going adolescent girls in selected school of Dehradun.

Thus, the null hypothesis was rejected.

DISCUSSION

This chapter discusses the major findings of the study and reviews that in relation to findings from the result of previous study.

The present study was conducted to assess the effectiveness of video assisted teaching module on level of pain and knowledge regarding dysmenorrhea and its management among school going adolescent girls in Sanatan Dharam Inter College, Dehradun, Uttarakhand. In respect to fulfill the objectives of the study, pre experimental (one group pre-test post-test) design was adopted. There were total 60 subjects that fulfilled the inclusion and exclusion criteria were selected through convenience non-probability sampling technique. Data was collected by using self-structured questionnaires.

THE DISCUSSION IS DONE UNDER THE FOLLOWING CATEGORIES:

Discussion related to level of pain and effectiveness of video-assisted teaching module on knowledge regarding dysmenorrhea and its management among school going adolescent girls.

The result shows the enhancement in knowledge after the application of video assisted teaching module 12.0166 was highest in respect to the previous knowledge regarding dysmenorrhea 8.6166.

The aspect wise t test value was observed and showed significance in all aspects of knowledge. The combined t test value was significant i.e. 8.229 at P>0.05 level which indicates that the video assisted teaching module was effective.

Finding of the study revealed that in pre test (46.67%) of samples had poor knowledge (48.33%) had average knowledge (5%) had good knowledge whereas in post test (10%) had poor knowledge (71.67%) had average knowledge (18.33%) had good knowledge. The study findings depicts that video assisted teaching module is an effective strategy to improve knowledge of adolescent girls regarding dysmenorrhea.

Discussion related to association between selected demographic variables and pre test level of knowledge regarding dysmenorrhea among school going adolescent girls.

Chi square value for age (χ^2=18.76), type of family (χ^2=8.595), income (χ^2=0.5309). The obtained P value for age is p<0.05 which indicates there is significant relation between knowledge of dysmenorrhea for the school going adolescent girls experiencing dysmenorrhea with age. Hence, the null hypothesis is rejected.


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ETHICAL CONSIDERATION CERTIFICATE

TO WHOM SO EVER IT MAY CONCERN

This is to certify that research project entitled course " **A study to assess the knowledge and effectiveness of video assisted teaching module on level of pain regarding dysmenorrhea and its management among school going adolescent girls in Sanatan Dharm Inter College Dehradun"** is going to be started in this institute by the following students of B.Sc. Nursing 3rd year:-

1. Anu
2. Diksha
3. Nisha Pandey
4. Radha Rani Gairola
5. Ruby Jeena
6. Sandhya Kothiyal
7. Shilpi Lakhera
8. Simran Bedi

This project was placed before the institutional ethical committee and has been approved as there is no objection for holding this research project work.

Name of Ethical Members :-

Chairman
1. Mr Ram Kumar Sharma, Principal

Members
2. Mrs Little Treesa, Associate Prof
3. Mrs Gyanendri Tomar, Associate Prof
4. Mrs Bijaya Mohanta, Asst Prof
5. Mrs K Chitra, Asst Prof
6. Mrs Pooja Godiyal, Asst Prof
7. Mr. Mayank Kumar, Asst Prof
8. Mr Manish Jagariya, Asst Prof

Station : Dehradun
Dated : Oct 2021

CONCLUSION

Based on the findings, it is statistically evidence proved that the knowledge of the participants have significantly increased after the video-assisted teaching module has been implemented.

Source Of Support
Nil

Conflict Of Interest
None

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