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A study to assess the effectiveness of structured teaching programme on knowledge regarding pain management in dysmenorrhea among adolescent girls in a selected college of Dehradun, Uttarakhand.

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Abstract
A study was conducted to assess the effectiveness of structured teaching programme on knowledge regarding pain management in dysmenorrhea among adolescent girls in a selected college of nursing, Dehradun, Uttarakhand. The research design selected for the study was one group pre-test and post-test design. The setting was S.G.R.R IM & HS College of Nursing, Patel nagar, Dehradun. Random sampling technique [chit method] was used to collect data from 60 adolescent girls of B.Sc Nursing 1st year. A self developed knowledge questionnaire regarding pain management in dysmenorrhea was used to collect data. The result showed that most of the adolescent girls 57(95%) had moderate knowledge, few 2 (3%) had adequate knowledge and only 1 (2%) of them had inadequate knowledge whereas after the teaching program all the adolescent girls 60(100%) attained adequate knowledge. Thus the study concluded that the knowledge gained by the adolescent girls regarding pain management in dysmenorrhea was due to the teaching program given the researcher.

Keywords: Effectiveness, knowledge, dysmenorrhea, adolescent girls

Introduction
Adolescence is a transition period from childhood to adulthood and is characterized by a spurt in physical, endocrinal, emotional, mental growth with a change from complete dependence to a relative independence. The period of adolescence for a girl is a period of physical and psychological preparation for safe motherhood. One of the major psychological changes that take place in an adolescence girl is the onset of menarche, which is often associated with problem of irregular of menstruation, excess bleeding and dysmenorrhea. Among all of these disorders dysmenorrhea is one of the most common problems experienced by adolescent girls. Dysmenorrhea is a sub group of pelvic pain that manifests as painful menstrual flow. Dysmenorrhea is a gynecological medical condition characterized by severe uterine pain during menstruation. While most women experience minor pain during menstruation and dysmenorrhea is diagnosed when the pain is severe so as to limit normal activities and which require medication. Painful menstruation affects approximately 50% of menstruating women and 10% are incapacitated for up to 3 days.

Dysmenorrhea is found as one of the most common problems affecting majority of adolescent girls substantially and compromises the overall quality life of sufferers almost like a chronic illness to the constant embarrassment and disrupted routine life. Due to the lack of knowledge among adolescent girls they are not using the home remedies to reduce the pain and the girls who are aware about the treatment & home remedies are not using because of the fear of harmful effects.

Materials and methods
Methodology
Research Approach
In the present study quantitative research approach was used.

Research Design
The research design employed for the study was the one group pre-test post-test design.

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Setting of the study
The study was conducted at Shri Guru Ram Rai College of Nursing, Patel Nagar, Dehradun.

Population
Basic B.Sc Nursing 1st year of SGRR IM&HS College of Nursing , Dehradun.

Sample Size
60 adolescent girls who met inclusion criteria were selected for the study.

Sampling Technique
Random sampling technique (chit method) was used to select the participant for the research study.

Sampling Criteria
- **Inclusion Criteria**
  - Adolescent girls who were in the age group of 17-21years and studying in B.sc Nursing 1st year from the SGRR IM&HS College of Nursing
  - Adolescent girls who were able to understand English
  - Adolescent girls who were available during the time of data collection

- **Exclusion Criteria**
  - Adolescent girls who were not willing to participate in the study.

Description of the Data Collection Instrument
A self developed knowledge questionnaire was used for data collection. It was organized in two parts:

Section 1: Baseline data
It consisted of age, age at menarche, food habits, type of family, duration of menstrual cycle, amount of blood flow during menstruation, use of painkiller for dysmenorrhea, source of information.

Section 2: Tool to assess the knowledge regarding dysmenorrhea
Self developed knowledge questionnaire was prepared to assess the knowledge. The items were related to the knowledge regarding dysmenorrhea, its management and home remedies to reduce pain.

Data collection procedure
A study was conducted in a SGRRIM&HS College of Nursing, for a period of one week. Permission was also obtained from principal of the college to conduct the study. 60 adolescent girls from B.Sc Nursing 1st were selected who meet the inclusion criteria. Informed content was obtained from the study participants. The process of the study was explained to them and the demographic data was collected from each of the girls. A pretest was given to the adolescent girls for 20 minutes. After the pretest a Structured teaching program was conducted for 30min. After 3 days a post test was conducted using same self developed knowledge questionnaire.

Plan for data analysis
The data was analyzed by using descriptive statistics.
1. Frequencies and percentage for the data analysis of the demographic data.
2. The data was presented in the form of tables and figures.

Results & Discussion

Table 1(A): Distribution of age among adolescent girls n=60

| AGE (in years)	Mean $\pm$ SD	Minimum	Maximum
	19 ± 0.77	18	21

Table 1(B): Frequency and percentage distribution of demographic variables of the adolescent girls n=60

S. No	Demographic Variables	Frequency (n)	Percentage (%)
1.	**Age at menarche**		
	a) 10-12Yrs	4	6.6%
	b) 12-15 Yrs	34	56.6%
	c) >15Yrs	22	36.6%
2.	**Food habits**		
	a) Vegetarian	23	38.3%
	b) Non-Vegetarian	37	61.6%
3.	**Type of family**		
	a) Joint Family	17	28.3%
	b) Nuclear Family	43	71.6%
4.	**Duration of menstruation**		
	a) 3 days	15	25%
	b) 5 days	39	65%
	c) 7 days	6	10%
5.	**Pattern of menstrual cycle**		
	a) Regular	51	85%
	b) Irregular	9	15%
6.	**Amount of blood flow**		
	a) Scanty	1	1.6%
	b) Normal	54	90%
	c) Heavy	5	8.3%
7.	**Pain during dysmenorrhea**		

	a) Yes	41	68.3%
	b) No	19	31.6%
8.	**Do you use painkiller for dysmenorrhea?**		
	a) Yes	7	11.6%
	b) No	53	88.3%
9.	**Source of information**		
	a) Mass media	7	11.6%
	b) Family/Friends/Relatives	47	78.3%
	c) Health care personnel	6	10%

Table 2(a): Frequency distribution of knowledge regarding pain management in dysmenorrhea among adolescent girls in pre and post test n=60

S. No.	Level of knowledge	Pretest		Posttest	
		n	%	n	%
1.	Inadequate knowledge	1	2	00	00
2.	Moderate knowledge	57	95	00	00
3.	Adequate knowledge	2	3	60	100
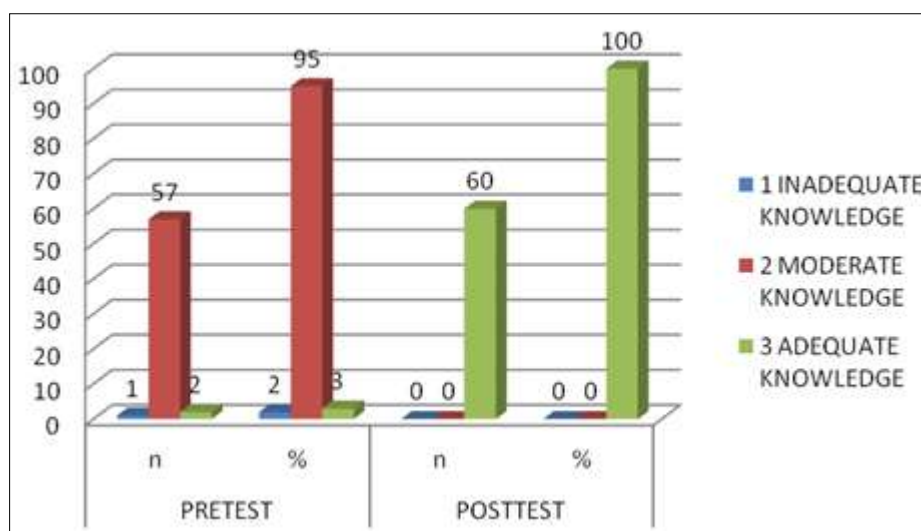
Fig 1: Frequency distribution of knowledge regarding pain management in dysmenorrhea among adolescent girls in pre and post test

The above graph shows that 2% of adolescent girls had inadequate knowledge, 57% adolescent girls had moderate knowledge, and 3% had adequate knowledge about pain management in dysmenorrhea in pretest.

During posttest none of the girl had inadequate knowledge or moderate knowledge after the posttest, 100% girls had adequate knowledge regarding pain management in dysmenorrhea.

Table 2(B): Effectiveness of structured teaching programme on knowledge regarding pain management in dysmenorrhea among adolescent girls. n=60

Knowledge score of adolescent girls	Mean ± SD	t	P
Pre test	19 ± 2.93	23.2	0.000*
Post test	30.61 ± 2.56		

The above table shows that the mean knowledge score of pre-tests was 19 whereas post-test mean was 30.6. There was increase in the level of knowledge of the adolescent girls after the structured teaching programme regarding pain management in dysmenorrhea and it was found highly significant as the calculated 't' value was found higher than the 't' tabulated value.

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