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RESEARCH ARTICLE

PRE-EXPERIMENTAL STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING HOME REMEDIES USED IN DYSMENORRHEA AMONG ADOLESCENT GIRLS IN SELECTED HIGHER SECONDARY SCHOOLS DISTRICT KISHTWAR

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Abstract

Nowadays it is common to see that the adolescent girls face large number of difficulties during their menstrual period. As of now the adolescent girls are trying to get home remedies in order to reduce the level of pain before and during menstrual period. The dysmenorrhea leads to develop different kinds of adverse effect on adolescent girls for example low concentration during classes, difficulties in accomplishing homework, school absenteeism, Lack of interest in domestic activities, Lack of interest in class work and even the adolescent girls are maintaining social distances among family members as well as among friends during these days. Dysmenorrhea also limits participation in sports and social activities. Many women and adolescent girls are nowadays trying to find some basic remedies which can help them to relieve the dysmenorrhea. Therefore, On the basis of these views a study was conducted to evaluate the effectiveness of structured teaching programme on knowledge regarding home remedies used in dysmenorrhea among adolescent girls in selected higher secondary schools of District kishtwar. For which 30 subjects were selected by stratified random sampling technique. After data collection structured close ended knowledge questionnaire was used to assess the knowledge among subjects. The data was analyzed by descriptive and inferential statistics by using chi-square and t-test. The findings revealed that the mean posttest knowledge score (24.9) standard deviation 0.69, was significantly higher than mean pretest knowledge score 12.7 standard deviation 1.16 among study subjects which indicated that structured teaching program was highly effective in enhancing the knowledge in adolescent girls at mean difference 17.17. The study also concluded that there were statistically no significant association between demographic variables ($p=0.000$) of adolescent girls with their pre-test knowledge scores at 0.05 level of significance.

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Introduction:-

Adolescence is a transitional stage of physical and psychological development that generally occurs during the period from puberty to legal adulthood. Adolescence is usually associated with the teenage years but its physical, psychological or cultural expressions may begin earlier and end later, for example puberty now typically begins during preadolescence, particularly in females. The end of adolescence and the beginning of adulthood varies by country. Furthermore, even within a single nation, state or culture, there can be different ages at which an individual is considered mature enough for society to entrust them with certain privileges and responsibilities. Adolescence is usually accompanied by an increased independence allowed by the parents or legal guardians, including less supervision as compared to preadolescence.¹

Dysmenorrhea is one of the common menstrual disorders among adolescent girls. Dysmenorrhea means difficult menstruation but the term is used to mean painful menstruation. Dysmenorrhea is defined as difficult menstrual flow or painful menstruation. About 50-75% young girls complain of this. This is one of the leading, if not the greatest, single cause of lost school days. In addition, the adolescents with dysmenorrhea receive lower grades and have more school adjustment problems. The majority of the causes are not due to disease and the physical examination is normal. Dysmenorrhea has been reported to be significantly increased among mothers and sisters of women with the condition. The optimal management of this symptom depends on an understanding of the underlying cause. Typically dysmenorrhea begins up to 48 hours before onset of menstruation and resolves within 2-4 days of onset or by the end of menstrual period. Dysmenorrhea can be classified as primary where there is no pelvic pathology, usually occurs within 1-3 years of menarche. Whereas dysmenorrhea is painful menstruation resulting from a pathological process. The pain may be related to increasing tension in the pelvic tissues due to pelvic congestion or increased vascularity in the pelvic organs.^{2,3}

Dysmenorrhea is a common menstrual complaint with a major impact on women's quality of life, work productivity, and health-care utilization. A comprehensive review was performed on longitudinal or case-control or cross-sectional studies with large community-based samples to accurately determine the prevalence and/or incidence and risk factors of dysmenorrhea. Fifteen primary studies, published between 2002 and 2011, met the inclusion criteria. The prevalence of dysmenorrhea varies between 16% and 91% in women of reproductive age, with severe pain in 2%–29% of the women studied. Women's age, parity, and use of oral contraceptives were inversely associated with dysmenorrhea, and high stress increased the risk of dysmenorrhea. The effect sizes were generally modest to moderate, with odds ratios varying between 1 and 4. Family history of dysmenorrhea strongly increased its risk, with odds ratios between 3.8 and 20.7. Inconclusive evidence was found for modifiable factors such as cigarette smoking, diet, obesity, depression, and abuse. Dysmenorrhea is a significant symptom for a large proportion of women of reproductive age; however, severe pain limiting daily activities is less common. This review confirms that dysmenorrhea improves with increased age, parity, and use of oral contraceptives and is positively associated with stress and family history of dysmenorrhea.⁴

The prevalence of dysmenorrhea reported in the literature varies substantially. A greater prevalence was generally observed in young women, with estimates ranging from 67% to 90% for those aged 17–24 years. A recent large Australian study of senior high school girls found that a higher proportion, 93%, of teenagers reported menstrual pain. The studies in adult women are less consistent in reporting prevalence of dysmenorrhea and often focus on a specific group, with rates varying from 15% to 75% (10). Severe pain sufficient to limit daily activities is considerably less common, affecting approximately 7%–15% of women, although a study of adolescents and young adults aged 26 years or less reported that 41% of the participants had limitations in their daily activities due to dysmenorrhea.⁵⁻⁸

There is a wide variation in the estimate of dysmenorrhea from studies around the world reporting a range between 28% and 71.7%. In similar studies from Turkey, the prevalence of dysmenorrhea has been reported to be between 58.2% and 89.5%.⁹⁻¹²

Studies on the prevalence of menstrual pain have shown that many factors are related to this disorder. These factors include a younger age, low body mass index (BMI), smoking, early menarche, prolonged or aberrant menstrual flow, perimenstrual somatic complaints, pelvic infections, previous sterilization, somatization, psychological disturbance, genetic influence, and a history of sexual assault influencing the prevalence and severity of dysmenorrhea.^{13,14}

This review examines the prevalence, associated morbidity, and treatment of primary dysmenorrhea in adolescent girls. Relevant literature was examined by systematic, evidence-based review using MEDLINE and Cochrane Collaboration databases. Dysmenorrhea is highly prevalent during adolescence. Despite differences in measurement methods, 20%–90% of adolescent girls report dysmenorrhea and about 15% of adolescents describe their dysmenorrhea as severe. During adolescence, dysmenorrhea leads to high rates of school absence and activity nonparticipation. Most adolescents with dysmenorrhea self-medicate with over-the-counter preparations; few consult healthcare providers. Combined oral contraceptives (COC) are an accepted treatment for dysmenorrhea in nonadolescent women. However, data supporting the efficacy of combined oral pills (COC) is limited. Very small studies show decreased prostaglandin in menstrual fluid associated with high-dose combined oral pills (COC) use. Larger studies are limited to cross-sectional comparisons showing lower prevalence of dysmenorrhea in low-dose combined oral pills (COC) users compared to non-combined oral pills (COC) users. One small, randomized controlled trial including some adolescents demonstrated an improvement in dysmenorrhea with high-dose combined oral pills (COC) treatment compared to placebo. The efficacy of low-dose combined oral pills (COC) in the treatment of adolescent dysmenorrhea has yet to be determined. If effective, well-established safety and non-contraceptive health benefits may make combined oral pills (COC) an ideal treatment for dysmenorrhea in adolescent girls.¹⁵

Objectives Of The Study:-

1. To assess the existing level of knowledge regarding home remedies used in dysmenorrhea among adolescent girls of selected schools.
2. To assess the effectiveness of structured teaching program regarding home remedies used in dysmenorrhea among adolescent girls.
3. To find out the association between pre-test knowledge with the selected demographic variables (age, Educational standard, monthly income, dietary pattern, menstrual cycle, and duration of pain of adolescent girls in selected schools of District Kishtwar.

Materials And Methods:-

A pre-experimental one group pretest posttest research design was conducted to assess the knowledge regarding home remedies used in dysmenorrhea among adolescent girls in selected schools. 60 subjects were selected by simple random sampling technique. Structure Knowledge questionnaire was adopted to collect the information from the participants in selected schools of Kishtwar. The tool consisted of demographic variables and adolescent girls. Prior to data collection informed consent was obtained from the participants. The data was analyzed using descriptive and inferential statistics.

Results:-

Section 1

Fig.1:- Frequency Distribution of Subjects According To Their Age.

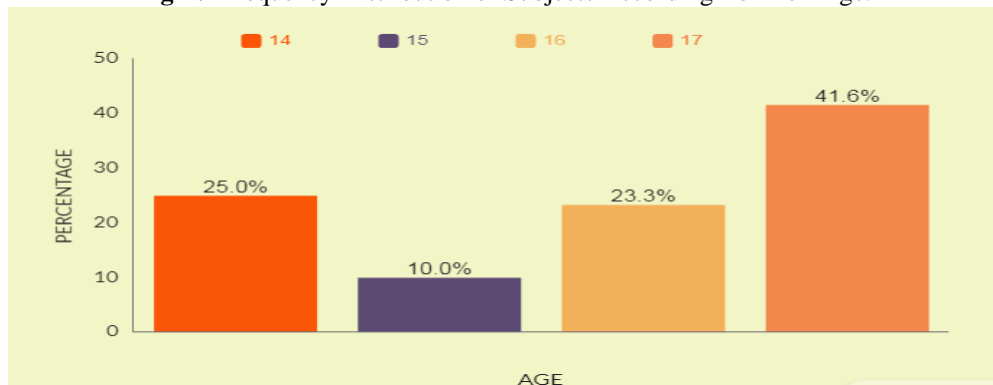


Fig.1:- The data presented in figure 1 revealed that out of 60 study subjects most of the subjects were **25(41.6%)** in the age group of 17 years, **14(23.3%)** in the age group of 16 years, **6(10%)** in the age group of 15 years and **15(25%)** in the age group of 14 years.

Fig. 2:- Percentage distribution of Educational Standard of adolescent girls with dysmenorrhea.

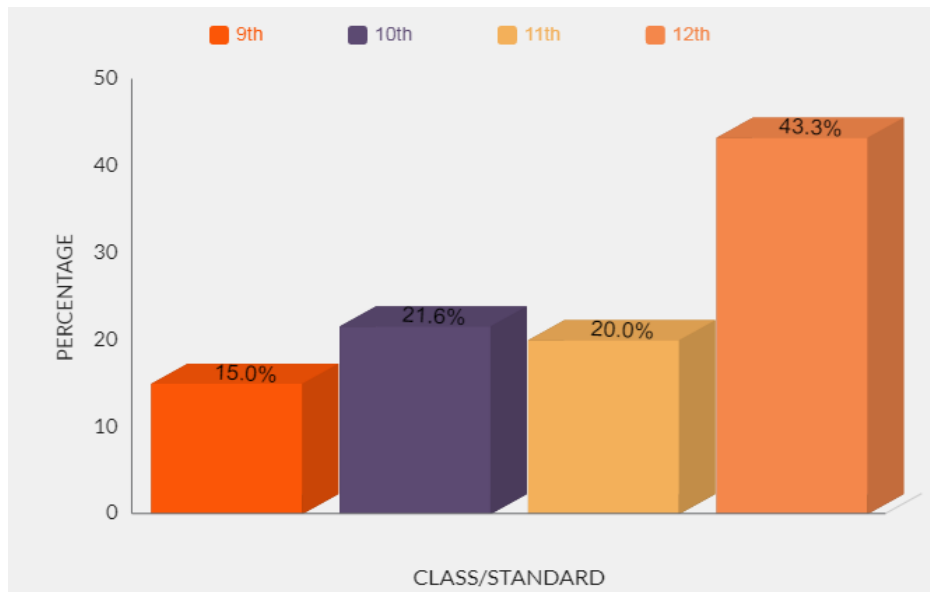


Fig.2:- The data presented in figure 2 revealed that out of 60 study subjects **26(43.3%)** were belonged to 12th standard, **12(20%)** were belonged to 11th standard, **13(21.6%)** were belonged to 10th standard and **9(15%)** were belonged to 9th standard.

Fig.3 Percentage distribution of study subjects as per their monthly income.

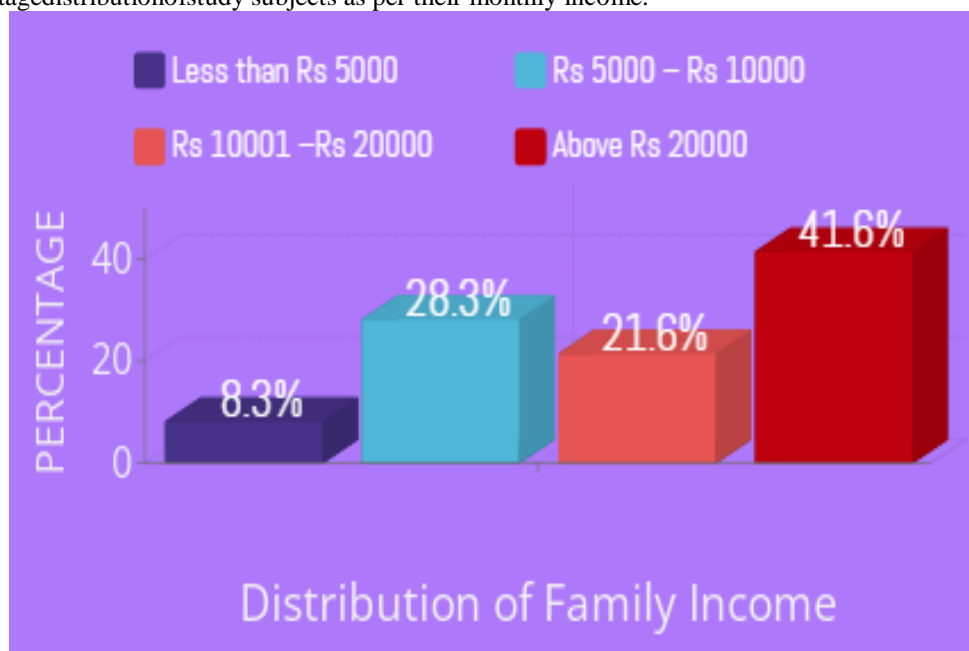


Fig. 3:- The data presented in figure 3 revealed that out of 60 study subjects **25(41.6%)** were having income more than 20000, **13(21.6%)** were having income between 10001-20000, **17(28.3%)** were having income between 5000-10000 and **5(8.3%)** were having income less than 5000.

Fig. 4:- Percentage distribution of study subjects as per their dietary pattern.

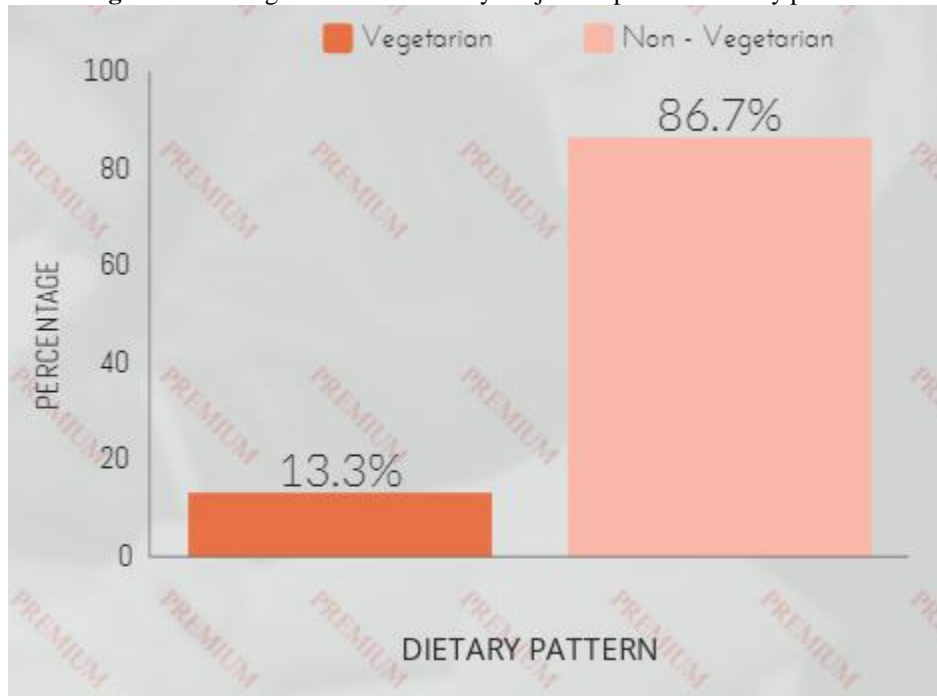


Fig. 4:- The data presented in figure 4 revealed that out of 60 study subjects 52(86.6%) were belonged to non-vegetarian and 8(13.3%) were belonged vegetarian.

Fig.5:- Percentage distribution of study subjects as per their menstrual cycles.

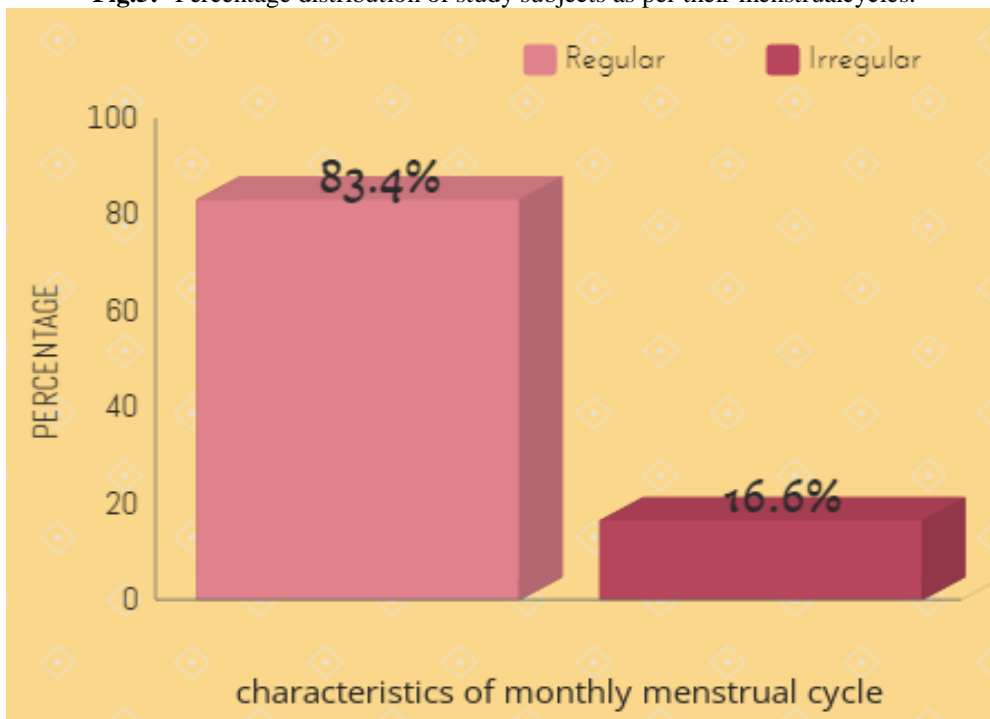


Fig. 5:- The data presented in figure 5 revealed that out of 60 study subjects 50(83.4%) were having regular menstrual cycle, 10(16.6%) were having irregular menstrual cycle .

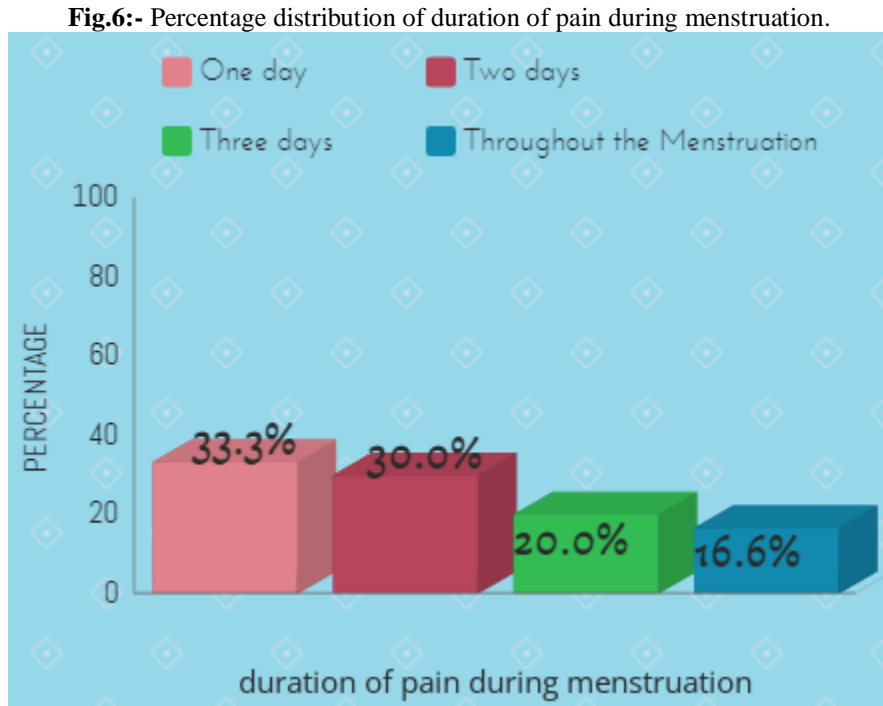


Fig. 6:- The data presented in figure 6 revealed that out of 60 study subjects **20(33.3%)** were having one day pain, **18(30%)** were having two days pain, **12(20%)** were having three days pain and **10(16.6%)** were having pain throughout the menstruation.

Section 2

Table 1:- Comparison of pre and post knowledge (paired t - test).

		MEAN	N	MEAN DIFFERENCE (e)	STANDARD DEVIATION	P-VALUE
PAIR 1	PRE	12.7	60	12.2	2.51	<0.05*
	POST	24.9	60		2.54	

* Significant at p < 0.05 level

The data presented in table 1 revealed that the mean pretest knowledge score of the subjects was **12.7** with Standard deviation **2.51** whereas the mean posttest knowledge score of the subjects was **24.9** with standard deviation **2.54**. The mean difference between pre-test and post test knowledge score was (**12.2**) at p value ≤ 0.05 which indicates that there was significant difference between pre-test and post-test mean knowledge scores after imparting structured teaching program regarding home remedies used in dysmenorrhea.

Section - 3

Table: 2:- Frequency, Percentage Distribution and chi-square value of pre-test level of knowledge among adolescent girls with their selected demographic variables. N=60

S.no	Demographic variables	Level of knowledge				Df	Chi-square value
		Less than median		Greater than median			
		1) f	2) %	3) f	4) %		

1	Age (in years)	15	25	0	0	3	9.0915*S
	a. 14	5	8	1	2		
	b. 15	14	23	0	0		
	c. 16	25	42	0	0		
2	Educational Standard					3	1.335 NS
	a. 9th	9	15	0	0		
	b. 10th	13	22	0	0		
	c. 11th	12	20	0	0		
3	Family monthly income					3	11.23*S
	a. Less than 5000	4	7	1	2		
	b. 5000 to 10000	17	28	0	0		
	c. 10000 to 20000	13	22	0	0		
4	Dietary pattern					1	0 NS
	a. Vegetarian	8	13	0	0		
	b. Non-vegetarian	52	87	0	0		
5	Menstrual cycle					2	5.086 *S
	a. Regular	50	83	0	0		
	b. Irregular	9	15	1	2		
6	Duration of pain	20	33	0	0	3	5.106 NS
	a. One day	18	30	0	0		
	b. Two days	12	20	0	0		
	c. Three days	9	15	1	2		
	d. Throughout the menstruation						

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NS=Not Significant ($p>0.05$).

*S= Significant ($p<0.05$)

The data presented in table 2 revealed that significant association was found between age, monthly income and menstrual cycle of study subjects with their pre-test knowledge score whereas no association was found between educational standard, dietary pattern and duration of pain with their pre-test knowledge score.

Recommendations:-

The Following studies can be undertaken in relation to present study

1. A similar study need to be undertaken with a large number of samples for better generalization.
2. A similar study can be conducted by seeking other variables.
3. A true Experimental research approach can be used.
4. The study can be conducted among nursing student's to assess their knowledge regarding home remedies used in dysmenorrhea.
5. Setting can be changed by involving colleges, higher educational institutes and universities.
6. A comparative study can be conducted to assess the knowledge and attitude regarding neonatal resuscitation among nurses in hospitals.
7. A comparative study can be conducted between staff nurses and students related importance of home remedies used in dysmenorrhea.

Conclusion:-

The following conclusions were drawn on the basis of the findings of the study.

1. Pretest findings showed the Knowledge among adolescent was found poor regarding home remedies used in dysmenorrhea.
2. There was improvement in knowledge of study subjects after the implementation of structured teaching programme regarding neonatal resuscitation in pre-experimental group.
3. The structured teaching programme was found effective in improving the knowledge regarding home remedies used in dysmenorrhea as it was evident from posttest knowledge scores, when compared with pretest knowledge score.
4. There was significant association between age in years, monthly income and menstrual cycle of adolescent girls with their pre-test knowledge as ($p\text{-value}<0.001$). So H_2 was accepted. However there was no statistically significant association between pre-test knowledge score with these variables (Educational Standard, Dietary pattern and Duration of pain) at $p > 0.05$. Hence H_2 was rejected for these variables at 0.05 level of significance. This indicated that structured teaching programme can remain effective if provided regular basis to adolescent girls in order to increase the knowledge regarding home remedies used in dysmenorrhea.

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