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### RESEARCH ARTICLE

#### A STUDY TO ASSESS THE EFFECTIVENESS OF PELVIC BRIDGE EXERCISE ON DYSMENORRHOEA AMONG ADOLESCENT GIRLS AT SELECTED GOVERNMENT HIGHER SECONDARY SCHOOL, ATPUDUCHERRY

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##### Key words:-

Dysmenorrhea, Pelvic bridge exercise

#### Abstract

**Background:** Menstrual pain has always been such a big problem for girls everywhere,

dysmenorrhea occurs without pelvic pathology affecting about 50% of women. It occurs more frequently in unmarried women.

**Objectives:** To assess the level of dysmenorrhea among adolescent girls. - To evaluate the effectiveness of pelvic bridge exercise on dysmenorrhea among adolescent girls. - To associate the level of dysmenorrhea among adolescent girls with selected Socio demographic variable.

**Research design and approach:** Quantitative approach and Pre-Experimental-One group pretest post-test design was adopted for this study. The study was conducted at selected Government Girls Higher Secondary School, Madagadipet, Palayam. The sample size was 30. The Purposive sampling technique was used to select the subjects. The intervention applied in this study was Pelvic bridge exercise, daily 2 times per day for 6 days per week up to next period.

**Result:** The results showed the association between the post-test level of dysmenorrhea and selected socio demographic variables, there was a significant association between the level of dysmenorrhea and selected socio demographic variables such as age in years ( $x^2 = 0.833$ ). Age

at menarche ( $x^2 = 0.536$ ), Family Type ( $x^2 = 1.50$ ), Family income ( $x^2 = 2.72$ ), amount of blood flow ( $x^2 = 6.38$ ) Regularity of blood flow ( $x^2 = 6$ ), Frequency of cycle ( $x^2 = 10.2$ ) of adolescent girls.

**Conclusion:** This study concludes that the Pelvic bridge exercise significantly reduced the level of dysmenorrhea among the Adolescent girls.

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#### Introduction:-

Adolescent is the phase, usually between 10 to 20 years, in which children undergo rapid changes in body size, physiologic and psychological and social functioning. All body dimensions, development and maturation are completed. This is the net result of hormones and social structures designed to foster the transition from childhood to

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adulthood. Menstrual pain has always been such a big problem for girls everywhere, dysmenorrhea occurs without pelvic pathology affecting about 50% of women. It occurs more frequently in unmarried women.

According to the World Health Organization [WHO], Adolescent is the period of life that extends from 10 years to 19 years. The IAP [Indian Academy of Pediatrics] define adolescent is the period of life between 10 years to 18 years. Arbitrarily, adolescent is divided into three phases, early, middle and late adolescence. Early adolescence refers to age 10 to 13 years, middle adolescence 14 to 16 years and late adolescence 17 to 20 years. Adolescence is the sequence of events in which the individual is transformed into a young adult by a series of biological changes.

Adolescents comprise early one-fifth of the total population. Among the total adolescent population 47 percent comprise of female adolescents. Adolescent is considered to be from puberty until 18 years of age. The major physiological change that takes place in adolescent girls is the onset of menarche, which is often associated with dysmenorrhea. Dysmenorrhea involves menstrual periods that are accompanied by either sharp, intermittent pain or dull, aching pain, usually in the pelvis or lower abdomen. Other symptoms include nausea, vomiting, diarrhea, and body ache.

Most of the adolescent population in the school are suffering from dysmenorrhea and this also impacts the day-to-day life of adolescent girls for the particular days. So that adolescent girls are having more stress during menstruation. Thus, the researcher was very much interested to take this study, with the aim to reduce the dysmenorrhea by using pelvic bridge exercise as an intervention among adolescent girls at Government high school.

### Objectives:-

1. To assess the level of dysmenorrhea among adolescent girls studying in Government higher secondary school.
2. To evaluate the effectiveness of pelvic bridge exercise on dysmenorrhea among adolescent girls studying in Government higher secondary school.
3. To associate the level of dysmenorrhea among adolescent girls studying in Government high school with their selected Sociodemographic variables.

### Hypothesis

**H1:** There is a significant difference between the pre-test and post-test level of dysmenorrhea among adolescent girls studying in Government high school.

**H2:** There is a significant association between the level of dysmenorrhea among adolescent girls with their selected sociodemographic variables.

### Research Methodology:-

A Quantitative approach adopted for this present study. Pre-experimental (one group pre-test and post-test) design selected for the present study by using purposive sampling technique. Sample size was 30 adolescent girls with pelvic bridge exercise among adolescent girls. The period of data collection was 1 week. The data was gathered and analyzed by using descriptive and inferential statistics method and interpretations were made on the basis of the objectives of the study.

### Research Design

Research design is defined as the blueprint for conducting a study; maximizes control over factors that could interfere with the validity of the findings. It guides the planning and implementation of a study. Pre-experimental-one group pre-test and post-test design

O<sub>1</sub> → X → O<sub>2</sub>

Group	Pre-test-day one	Intervention-day one	Post-test-day seven
Pre-experimental	O <sub>1</sub>	X	O <sub>2</sub>

Key: O<sub>1</sub> - Pretest assessment of level of dysmenorrhea  
 X - Intervention (pelvic bridge exercise)  
 O<sub>2</sub> - Posttest assessment of level of dysmenorrhea

**Research setting**

The study was conducted at selected Government Girls Higher secondary School.

**Tool description**

The tool consists of two sections.

**Section A**

It consists of Demographic Variables of dysmenorrhea, such as Age in years, Age at menarche, Family type, Family Income, Amount of blood flow, Regularity of blood flow, Frequency of cycle, Menstrual cycle duration, Food pattern, do you have previous source of information on pelvic bridge exercise.

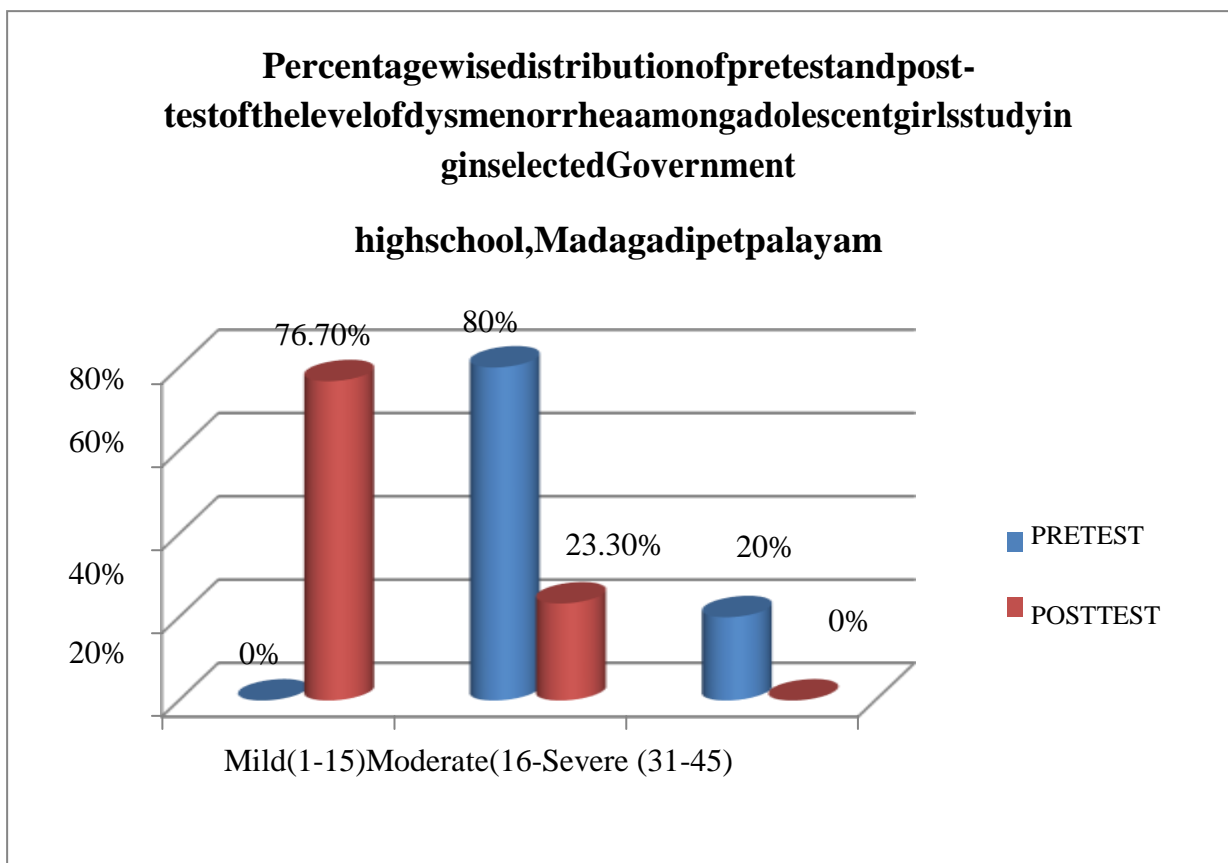
**Section B**

Check list to assess the level of dysmenorrhea among adolescent girls.

**Result and discussion:-**

Bardiagram representing the Percentage wise distribution of pretest and posttest of the level of dysmenorrhea.

In pretest, Majority of adolescent girls 24(80%) had moderate and 6(20%) had severe level of dysmenorrhea and the mean and standard deviation of the level of dysmenorrhea among adolescent girls studying in selected Government high school, Madagadipet Palayam is  $30.30 \pm 3.120$ .



**Fig11:-** Bardiagram representing the Percentage wise distribution of pretest and post-test of the level of dysmenorrhea

Effectiveness of pelvic bridge exercise on dysmenorrhea among adolescent girls studying in selected Government high school, Madagadipet Palayam. (N=30)

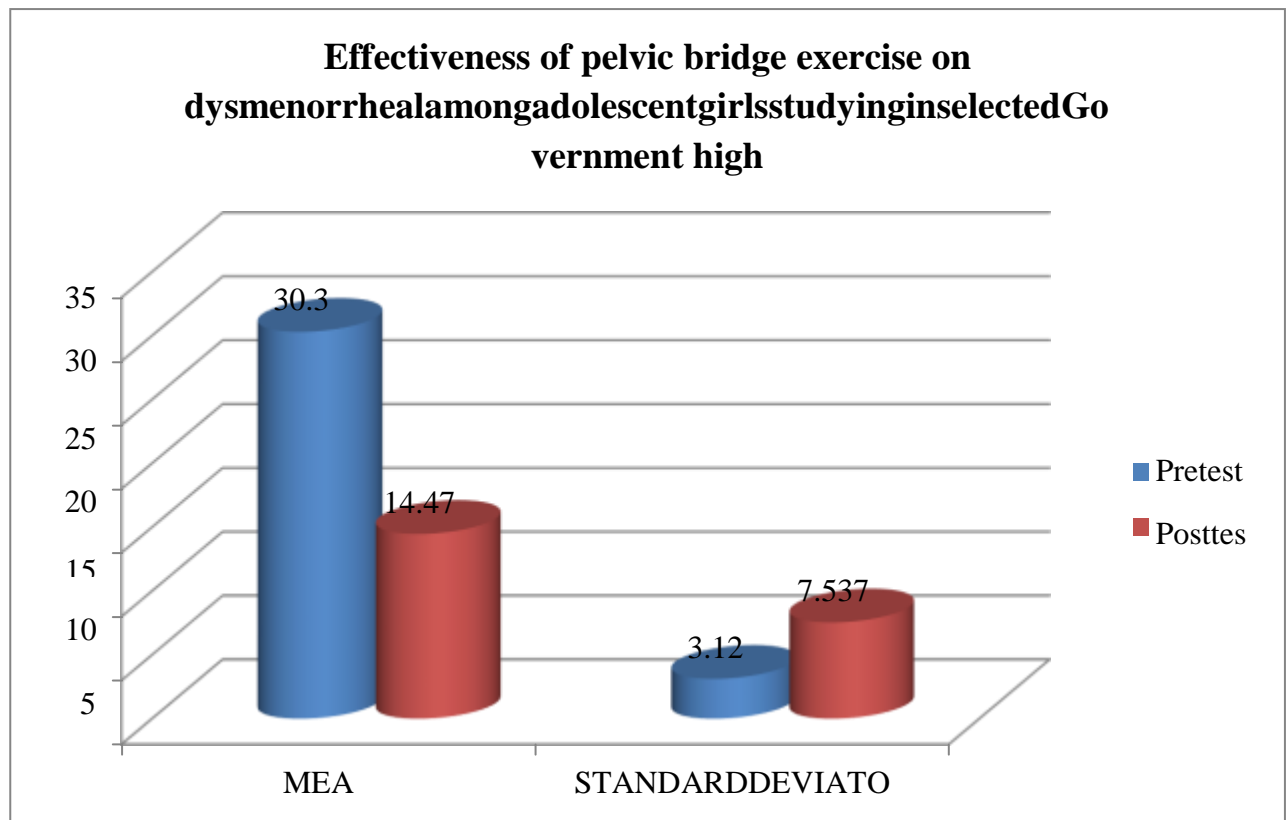
Effectiveness of pelvic bridge exercise on dysmenorrhea among adolescent girls studying in	TEST	MEAN	STANDARD DEVIATION	LEANDIFFERENCE	t'VALUE Paired-t test	Df	p'VALUE
	Pre test	30.30	3.120	15.833	12.393	29	0.000**
Selected Government high School	Post test	14.47	7.537				HS

\*\* -p < 0.001 highly significant, NS-Non-Significant.

**Table-3** shows that, the mean score of effectiveness of pelvic bridge exercise on dysmenorrhea among adolescent girls studying in selected Government high school, Madagadipet Palayam in the pre-test was  $30.30 \pm 3.120$  and the mean score in the post-test was  $14.47 \pm 7.537$ . The calculated paired 't' test value of  $t=12.393$  shows **statistically highly significant** difference of effectiveness of pelvic bridge exercise on dysmenorrhea among adolescent girls studying in Government high school, Madagadipet Palayam. Effectiveness of pelvic bridge exercise on dysmenorrhea among adolescent girls studying in selected Government high school, Madagadipet Palayam.

**Fig12:-**

Bar diagram representing the Percentage wise distribution of Effectiveness of pelvic bridge exercise on dysmenorrhea among adolescent girls.



Frequency and percentage wise distribution of pretest and posttest of the level of dysmenorrhea among adolescent girls studying in selected Government high school, Madagadipet Palayam.  
1) (N=30)

**Table 2:-** Show that frequency and percentage wise distribution of pretest and posttest of the level of dysmenorrhea among adolescent girls studying in selected Government high school, Madagadipet Palayam.

Level of dysmenorrhea	PRETEST		POSTTEST	
	N	%	N	%
Mild (1-15)	0	0	23	76.7
Moderate (16-30)	24	80	7	23.3
Severe (31-45)	6	20	0	0
Mean Standard deviation	30.30±3.120		14.47±7.537	

**In pretest,** Majority of adolescent girls 24(80%) had moderate and 6(20%) had severe level of dysmenorrhea and the mean and standard deviation of the level of dysmenorrhea among adolescent girls studying in selected Government high school, Madagadipet Palayam is 30.30±3.120.

**In post- test,** Majority of adolescent girls 23(76.7%) had mild and 7(23.3%) had Moderate level of dysmenorrhea and the mean and standard deviation of the level of dysmenorrhea among adolescent girls studying in selected Government high school, Madagadipet Palayam is 14.47±7.537.

### Conclusion:-

This study concludes that the Pelvic bridge exercise significantly reduced the level of dysmenorrhea among the Adolescent girls.

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