

“A Pre-Experimental study to assess the effect of pelvic rolling exercises on dysmenorrhoea among students of selected Colleges at Pimpri Chinchwad Municipal Corporation”.

Lekshmi Sudhish Nair¹ Jayabala Aghamkar² Dr. Jyoti Salunkhe¹, Mrs. Priya D²

¹Obstetrics And Gynaecology in Nursing Krishna Institute of Nursing Sciences Karad

²D.Y Patil College of Nursing Pimpri Pune

Corresponding Author: Lekshmi Sudhish Nair

ABSTRACT: Adolescence is a transition period from childhood to adulthood and is characterized by a spurt in physical, endocrinal, emotional, and mental growth, with a change from complete dependence to relative independence. **Objectives:-** To assess the level of dysmenorrhoea among the students. To assess the coping practices on dysmenorrhoea among the students. To assess the effect of pelvic rolling exercises on dysmenorrhoea among the students. To find correlation of level of dysmenorrhoea with selected demographic variables among the students. **Methodology:** Research design - one group pretest post-test pre experimental. Population: 60 adolescent girls with dysmenorrhoea. Sample: adolescent girls with dysmenorrhoea. Sample technique: purposive. Sample size: 60 adolescent girls **Result:** On day 1 pretest, 45% of the students was hurting a whole lot (score 8) and it is reduced to hurting little bit (score 2) for 68.3%. **Conclusion:** The researcher can conclude that pelvic rolling exercises are proved to be effective in reducing the level of dysmenorrheal

Keywords:- Assess, Effect, Pelvic rolling Exercises, Dysmenorrhoea

Date of Submission: 22-06-2018

Date of acceptance: 07-07-2018

I. INTRODUCTION

Adolescence is a transition period from childhood to adulthood and is characterized by a spurt in physical, endocrinal, emotional, and mental growth, with a change from complete dependence to relative independence. The period of adolescence for a girl is a period of physical and psychological preparation for safe motherhood. One of the major physiological changes that take place in adolescent girls is the onset of menarche, which is often associated with problems of irregular menstruation, excessive bleeding, and dysmenorrhea. Menarche is an important landmark in the process of growth and maturation of an adolescent girl. Menstruation is monthly bleeding out flowing through vagina on to the vulva for 4 to 5 days every 28 days during reproductive life of a woman from menarche till menopause. Menstruation is a normal physiological impact in each girl's life. Though menstruation is a normal physiological process for all healthy girls, pain during menstruation sometimes incapacitates her. It influences her study, work and routine activities. Dysmenorrhoea is the occurrence of painful cramps during menstruation

II. OBJECTIVES:-

- ✓ To assess the level of dysmenorrhoea among the students.
- ✓ To assess the coping practices on dysmenorrhoea among the students.
- ✓ To assess the effect of pelvic rolling exercises on dysmenorrhoea among the students.
- ✓ To find correlation of level of dysmenorrhoea with selected demographic variables among the students.

HYPOTHESIS:-

H₀: There will be no statistical significance change in dysmenorrheal symptoms before pelvic rolling exercise.
Alternative H₁ :- : There will be statistical significance change in dysmenorrheal symptoms after pelvic rolling exercise

III. METHODS AND MATERIAL:-

RESEARCH APPROACH:-

The researcher has adopted Evaluative Research Approach.

RESEARCH DESIGN:-

In the present study the investigator has adopted Pre-Experimental method and one group Pre-Test Post-Test design

RESEARCH SETTING:-

The setting for this study was Dr. D.Y. Patil Arts, Commerce, and Science College at PCMC, which includes 11th and 12th standard students

POPULATION:-

The population of the present study comprises the adolescent girls suffering from dysmenorrhoea.

SAMPLE:-

The samples are chosen from standard 11th and 12th Science group students in DR D.Y. Patil ArtsCommerce Science College at PCMC

SAMPLING TECHNIQUES:-

Purposive Sampling Technique

SAMPLE SIZE:-

The sample size for this study was 60. Each 30 students were taken from standard 11th and 12th science group of D.R.D.Y. Patil Arts, Science and commerce.

INCLUSION CRITERIA:-

- ✓ Adolescent girls who have experienced menarche.
- ✓ Adolescent girls who have dysmenorrhoea
- ✓ Adolescent girls whose age group is 16-18 years.
- ✓ Adolescents who understand Marathi/ Hindi/ English.
- ✓ Adolescents who are willing to participate in the study.

EXCLUSION CRITERIA:-

- ✓ Adolescent girls with functional disease and seriously ill.
- ✓ Adolescent girls whose refuse to participate in the study.
- ✓ Adolescents who have not experienceddysmenorrhoea.
- ✓ Adolescents who donot understand Marathi/Hindi/English

METHODS OF DATA COLLECTION:-

A Self Administered checklist was prepared and Modified Wong Baker Faces Pain Rating Scale is used for data collection.

ANALYSIS AND INTERPRETATION:-

Section I:Data on demographic characteristics of adolescent girls.

Table 1: Description of samples according to Demographic characteristics by frequency and percentage
N=60.

Sr.No	Variable	Frequency	Percentage
1	Age		
	15-16 years	30	50.0%
	17- 18 years	30	50.0%
2	Age of menarche		
	11-12 years	37	61.7%
	13-14 years	23	38.3%
3	Type of family		
	Joint	32	53.3%
	Nuclear	28	46.7%
4	Educational qualification		
	11th standard students	30	50.0%
	12 th standard Students	30	50.0%
5	Menstrual history		

	Regular	56	93.3%
	Irregular	4	6.7%
6	Family history of Dysmenorrhoea		
	Yes	50	83.3%
	No	10	16.7%

50% of the students in a sample were from age group 15-16 years and another 50% of them were from age group 17-18 years. 61.7% of them were 11-12 years of age of menarche and remaining 38.3% of them were 13-14 years of age of menarche. 53.3% of them were from joint family and 46.7% of them were from nuclear family. 50% of them were 11th standard students and another 50% of them were 12th standard students. 93.3% of them experienced regular menstrual and 6.7% of them experienced irregular menstruation. Majority of 83.3% of them were with family history of dysmenorrhoea whereas remaining 16.7% of them did not.

Section II:- Analysis of data related to the coping practices on dysmenorrhoea among students

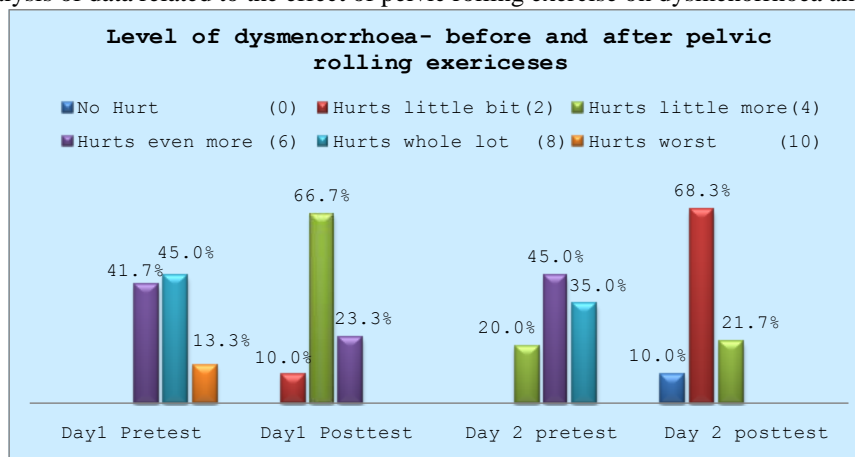
Table 2: Coping practices on dysmenorrhoea among students in frequency and percentages

N=60

Sr.no	Item	Frequency	Percentage
1	Application of heat		
	With hot water bag	38	63.3%
	With warm towel	14	23.3%
	No	8	13.3%
2	Application of cold		
	No	60	100.0%
3	Exercise		
	Yoga	18	30.0%
	Generalized exercise	15	25.0%
	Deep breathing exercises	5	8.3%
	Relaxation technique	2	3.3%
	No	20	33.3%
4	Sleep		
	During pain	45	75.0%
	For whole day	15	25.0%
5	Diet		
	Full	15	25.0%
	Semisolid	30	50.0%
	Liquid	15	25.0%
6	Self-medication		
	Paracetamol	24	40.0%
	Combiflam	17	28.3%
	Meftal-spas	19	31.7%
7	Absenteeism at school or college		
	Up to 1 day	10	16.7%
	2 to 3 days	6	10.0%
	No	44	73.3%
8	Effect on		
	Study	13	21.7%
	Work	33	55.0%
	Routine activities	13	21.7%
	No	1	1.7%
9	Diversional therapy		
	Listening to songs	19	31.7%
	Watching TV	11	18.3%
	Reading literature	13	21.7%
	Engaging in household activities	4	6.7%
	Gardening	5	8.3%
	Indoor games	8	13.3%

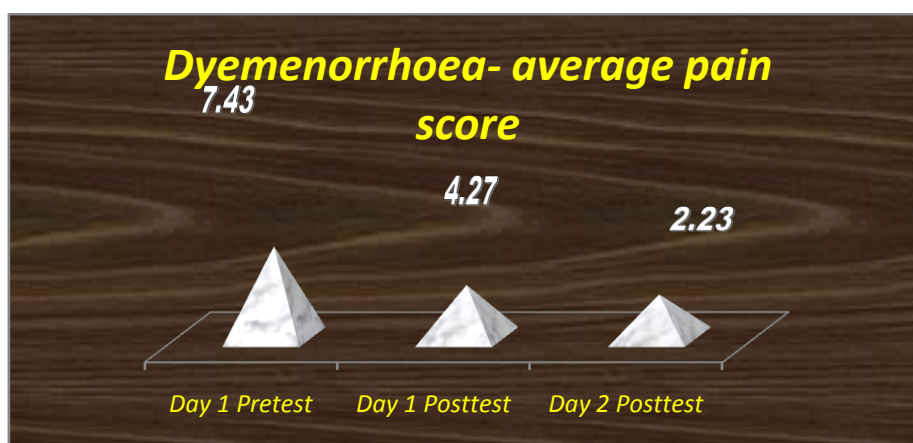
Majority of 63.3% of the students perform application of heat with hot water bag. None of them applied cold. 75.0% adolescent girls were getting sleep during menstrual pain, 25% adolescent girls were sleeping for a whole day. 50% of them were on semisolid diet. Majority of 73.3% of them were not absent at school/college. Majority of 55% of them e effect on work

Section III:- Analysis of data related to the effect of pelvic rolling exercise on dysmenorrhoea among the students



The above figure shows that, on day 1, for 45% of the students it was hurts whole lot (score 8) in pretest. On day 1 posttest, for 66.7% of them it was hurts little more (score 4). On day 2, for 45% of them it was hurts even more (score 6) in pretest. On day 2 after pelvic rolling exercises, for 68.3% of them it was hurts little bit (score 2). This indicates the pelvic rolling exercises help to reduce the level of dysmenorrhoea.

Paired t-test for effectiveness of pelvic rolling exercises on level of dysmenorrhea



1st day pretest of menstruation showed decrease in the level of dysmenorrhoea from 7.43 to 2.23. Since p-values were small (p-values= (0.000, 0.000), p-values less than 0.05), null hypothesis was rejected and research hypothesis was accepted.

Section IV:- An Analysis of data to find relationship between level of dysmenorrhoea and selected demographic variables.

Table 3:- The association between level of dysmenorrhoea and demographic variables was assessed by using chi square test.

Sr. No.	Variable	Hurts even more	Hurts whole lot	Hurtsworst	p-value
1	Age				
	15-16 years	12	14	4	1.000
	17- 18 years	13	13	4	
2	Age of menarche				
	11-12 years	13	21	3	0.063
	13-14 years	12	6	5	

3	Type of family				
	Joint	13	14	5	0.879
	Nuclear	12	13	3	
4	Education				
	11th standard students	12	14	4	1.000
	12 th standard Students	13	13	4	
5	Menstrual history				
	Regular	24	24	8	0.784
	Irregular	1	3	0	
6	Family history of Dysmenorrhoea				
	Yes	22	23	5	0.276
	No	3	4	3	

Since p-value corresponding to age of menarche is 0.063, the demographic variable age of menarche was found to have marginally significant association with level of dysmenorrhoea in students

IV. DISCUSSION:-

The similar study is to determine whether a Pelvic exercise program and a pelvic Floor muscle-training (PRMT) program could provide similar improvements in pelvic muscle strength. At baseline, the pelvis and PRMT groups measured 14.9 ± 12.5 and 12.5 ± 10.4 cmH₂O, respectively ($p = 0.41$). Both the Pelvis and PRMT groups got stronger (6.2 ± 7.5 cmH₂O, $p = 0.0002$ and 6.6 ± 7.4 cmH₂O, $p = 0.0002$, respectively), with no difference between groups $p = 0.85$. PFIQ and PFDI scores improved from baseline but not between groups. **Conclusions** :- Further study is required to determine if pelvis can actually treat pelvic dysfunction.

MAJOR FINDINGS:-

The major finding of the study are:-

61.7% of them were 11-12 years of age of menarche, 75.0% adolescent girls were getting sleep during menstrual pain, On day 1 posttest, for 66.7% of them it was hurts little more (score 4). 1st day pretest of menstruation showed decrease in the level of dysmenorrhoea from 7.43 to 2.23.

V. CONCLUSION:-

Researcher concluded at 5% level of significance and 59 degrees of freedom that the level of dysmenorrhoea of students improved significantly after performing pelvic rolling exercises. Thus, the pelvic rolling exercises are proved to be effective in reducing the level of dysmenorrhoea.

ACKNOWLEDGMENT

I thank all the students who participated in the study, principal of the senior college, my teachers and parents for the continuous support for the completion of the study.

REFERENCE

- [1]. Amanda, “Pelvic Rolling Exercise is effective in preventing and treating symptoms of dysmenorrhoea”, A Comprehensive and Critical Review of the Literature, 2009,15(2):27-28
- [2]. Basavanthappa BT, ‘Nursing Research. JP Brothers Medical publishers, Delhi India, 2007, 51-56.
- [3]. Campbell, “Non-pharmacological strategies used by adolescents for the management of menstrual discomfort”, The clinical Journal of Pain, 15(4), 2007, 313-320.
- [4]. Dawn C S, Textbook of Gynaecology, Contraception and Demography, Dawn books publishers, Kolkata, India, 14, 2003, 77-79.

Lekshmi Sudhish Nair “A Pre-Experimental study to assess the effect of pelvic rolling exercises on dysmenorrhoea among students of selected Colleges at Pimpri Chinchwad Municipal Corporation”. IOSR Journal of Pharmacy (IOSRPHR), vol. 8, no. 07, 2018, pp. 01-05.