



International Journal of Midwifery and Nursing Practice

E-ISSN: 2663-0435
P-ISSN: 2663-0427
www.nursingpractice.net
IJMNP 2024; 7(2): 01-05
Received: 01-05-2024
Accepted: 05-06-2024

Daniya Rabab
M.Sc. Nursing Student,
Department of Obstetrics and
Gynaecological Nursing, Al
Kareem College of Nursing,
Kalaburagi, Karnataka, India

Sudha Kurup
Head, Department of
Obstetrics and Gynaecological
Nursing, Al Kareem College of
Nursing, Kalaburagi,
Karnataka, India

Corresponding Author:
Daniya Rabab
M.Sc. Nursing Student,
Department of Obstetrics and
Gynaecological Nursing, Al
Kareem College of Nursing,
Kalaburagi, Karnataka, India

To assess the effectiveness of pelvic bridge exercise on dysmenorrhoea among the adolescent girls at selected PU colleges of Kalaburagi

Daniya Rabab and Sudha Kurup

DOI: <https://doi.org/10.33545/26630427.2024.v7.i2a.164>

Abstract

Background: Adolescence is a phase of development that occurs between infancy and maturity. It is marked by rapid physical, hormonal, emotional, and cognitive growth, as well as a shift from complete reliance on others to a greater level of self-sufficiency. Menarche is a significant physiological transition that occurs in adolescent girls. It is the transitional phase from childhood to adulthood.

Methodology: An evaluative approach with quasi experimental one group pretest-posttest design was adopted for the study. The samples from the selected pre university were selected using convenient sampling technique. The sample consisted of 50 adolescent girls studying at selected PU colleges. The tools used for data collection was Numerical pain scale.

Results: The study result reveal that, the pretest pain scores respondents mean was 6.74, median was 6.50, mode was 6 with standard deviation 1.13 and score range was 5-9. The posttest pain scores respondents mean was 3.18, median was 3, mode was 3 with standard deviation 2.08 and score range was 0-6. With regard to pretest level of pain it shows that, maximum 25(50%) respondents were having moderate level of pain, 23(46%) were having severe level of pain and remaining 2(4%) were had mild level of pain. During post-test maximum 25 (50%) of respondents were having mild level, 17(34%) were having moderate level of pain and remaining 8(16%) were not had pain during menstruation. The statistical paired 't' implies that the difference in the pretest and post-test value was found statistically significant at 5% level ($p < 0.05$) with a paired 't' value of 18.96. There exists a statistical significance in the difference of pain score indicating the positive impact of pelvic bridge exercises.

Conclusion: The findings revealed that, level of pain and severity of dysmenorrhoea among participants during pretest was moderate to severe and is reduced as low after exposure to pelvic bridge exercises. Pelvic bridges exercises effective to reduce pain and symptoms of dysmenorrhoea of adolescent girls.

Keywords: Pelvic Bridge exercises, adolescent girls, dysmenorrhoea, effectiveness, PU colleges

Introduction

An adolescent is an individual who is in a transitional phase, situated between two distinct stages or states. A adolescent is an individual who consistently occupies a certain stage of life. Living with them during their adolescent years, experiencing their hopes, frustrations, and joys, was surprisingly a formative and growing experience.

Adolescence is the stage of development that begins with the start of puberty and ends when physical growth stops and final adult height and traits are reached. Adolescents are individuals between the ages of 10 and 20.

Adolescence is categorised into three distinct phases: early adolescence, middle adolescence, and late adolescence. Early adolescence refers to the age group of 10-13 years, middle adolescence refers to the age group of 14-16 years, and late adolescence refers to the age group of 17-20 years. There are one billion adolescents in the globe, which is equivalent to one-fifth of the global population. India has surpassed the milestone of one billion people, with adolescents accounting for 21% of the population.

Menstruation refers to the regular monthly cycle of vaginal discharge in women. Menstruation occurs in females from the onset of puberty, often between the ages of 8 and 15, and continues until menopause, which usually occurs between the ages of 40 and 60. The majority of women undergo menstruation in a 28-day cycle, although there can be significant variation from person to person, despite it being a normal occurrence.

Adolescent girls typically experience cramping pain during menstruation, which is known as

primary dysmenorrhea. This is a common issue that affects women of reproductive age. It can be categorised into two overarching groups, namely elementary and secondary. Dysmenorrhoea refers to the occurrence of painful uterine cramps that are associated with menstruation. It can be categorised into primary or secondary dysmenorrhoea.

Primary dysmenorrhoea refers to pain experienced during menstruation without any detectable changes in the pelvic. It is most prevalent in women under the age of 25, typically beginning within three years after their first menstrual period. The main symptom of primary dysmenorrhea is intense, spasmodic pain in the suprapubic area, which occurs between eight to 72 hours after the start of menstruation and reaches its peak during the initial days when menstrual flow is at its highest. Primary dysmenorrhoea can typically be identified with a comprehensive assessment of the patient's medical history, along with an examination of the abdomen or pelvis. This is applicable to the majority of individuals who exhibit typical symptoms and do not have any risk factors for secondary causes.

It is necessary to provide education to adolescents about the significance of regularly performing pelvic bridge exercises. This can help reduce menstruation pain, develop abdominal muscles, aid in physical and mental recovery, and promote a healthy reproductive life.

Objectives

1. To assess the level of dysmenorrhea among the adolescent girls.
2. To evaluate the effectiveness of pelvic bridge exercise on dysmenorrhea among adolescent girls.
3. To find out the association between level of dysmenorrhea with their selected socio demographic variables among adolescent girls.

Hypotheses

H₁: The mean post test dysmenorrhoea scores of adolescent girls, who have undergone the pelvic bridge exercise will be significantly lower than their mean pre-test dysmenorrhoea scores at 0.05 levels of significance

H₂: The levels of dysmenorrhoea of adolescent girls will be significantly associated with their selected personal variables at 0.05 levels of significance

Methodology

Research Approach

Quantitative Research Approach

Research Design

Pre experimental one group pretest post test design study.

Sampling technique

The non-probability purposive sampling technique.

Sample size

50.

Setting of study

Selected pre university colleges, Kalaburagi, Karnataka

Population

Adolescent girls at selected pre university colleges of Kalaburagi.

Tool used for data collection

Part I: Demographic data

It consists of 9 items related to demographic data of participants

Part II: Standardized Numerical Pain Assessment Scale

Standardized pain assessment scale is visual analogue scale used to assess the severity of pain among participants. It is rating scale from 0-10 indicating 0 is no pain and 10 is highest level of the pain. The scores of pain scales are divided in to-

Score Level of Pain

0: No pain.

1 - 3: Mild pain.

4 - 6: Moderate pain.

7 - 10: Severe pain.

7 - 10: Severe pain.

Pelvic bridge exercises

Pelvic bridge exercise refers to the exercise, which includes 10 minutes of warm up, 40 minutes of pelvic bridge exercises consist of Pelvic tilt, bridge leg lift, advanced bridging, back stretch, pelvic lift and 10 minutes cool down exercise, which will be demonstrated and followed by adolescent girls for 2 times per day, 6 days per week for 4 weeks.

Data Collection Procedure

Official authorization was acquired from the administration of the chosen pre-university colleges in Kalaburagi. The data was gathered during the dates of 01/03/2024 and 30/03/2024. The sample of adolescent girls was chosen according to specific sampling criteria. To ensure an unbiased and accurate response, the chosen participants were provided with a clear explanation of the study's objectives and benefits, as well as a guarantee of confidentiality. Participants were provided with written consent.

On the first day, variables were assessed using structured instruments. Following this, participants were given pelvic bridge exercises for a duration of 15 days. A post-test was conducted on the 20th day using the same scale. The data gathering process was concluded after expressing gratitude to each respondent for their involvement.

Results

I. Demographic Profile

Table 1: Frequency & Percentage Distribution of Respondents according to their socio demographic variables, n=50

Sl. No.	Demographic variables	Frequency (f)	Percentage (%)
1.	Age in years		
	15-16	13	26
	17-18	37	74
2.	Dietary pattern		
	Vegetarian	30	60
	Mixed diet	20	40
3..	Family history of dysmenorrhoea		
	Yes	37	74
	No	13	26
4.	Age of menarche (in years)		
	<12	6	12
	12-13	9	18
	14-15	32	64
	>15	3	6
5.	Duration of menstrual cycle		
	15-20 days	00	00
	21-25 days	00	00
	26-30 days	42	84
	>30 days	08	16
6.	Number of days of menstruation		
	<3	00	00
	3-4	17	34
	5-6	30	60
	>6	3	6
7.	Number of soaked pads changed per day		
	<2	00	00
	2-3	35	70
	4-5	15	30
	>5	00	00
8.	Experience of pain due to menstruation		
	first menstruation onwards	33	66
	within an year after first menstruation	10	20
	after one year	7	14
	after two or more years	00	00
9.	Previous source of information on pelvic bridge exercise		
	Yes	11	22
	No	39	78

II. Distribution Respondent’s Scores according To Their Level of pain in menstruation during pretest and post test

Table 2: Mean, median, mode, standard deviation and range of pre test and post test pain scores of Respondents, n = 50

Area of Pain	Mean	Median	Mode	Standard deviation	Range
Pre test	6.74	6.50	6	1.13	5-9
Post test	3.18	3	3	2.08	0-6

The pretest pain scores respondents mean was 6.74, median was 6.50, mode was 6 with standard deviation 1.13 and score range was 5-9. The posttest pain scores respondents

mean was 3.18, median was 3, mode was 3 with standard deviation 2.08 and score range was 0-6.

Table 3: Frequency and Percentage distribution of respondents according to level of Pain, n=50

Level of Pain							
Pre test				Post test			
No Pain f(%)	Mild f(%)	Moderate f(%)	Severe f (%)	No Pain f(%)	Mild f(%)	Moderate f(%)	Severe f (%)
00	02(4%)	25 (50%)	23 (46%)	08(16%)	25 (50)%	17 (34%)	00

With regard to pre test level of pain it shows that, maximum 25(50%) respondents were having moderate level of pain, 23(46%) were having severe level of pain and remaining 2(4%) were had mild level of pain.

During post-test maximum 25 (50%) of respondents were having mild level, 17(34%) were having moderate level of pain and remaining 8(16%) were not had pain during menstruation.

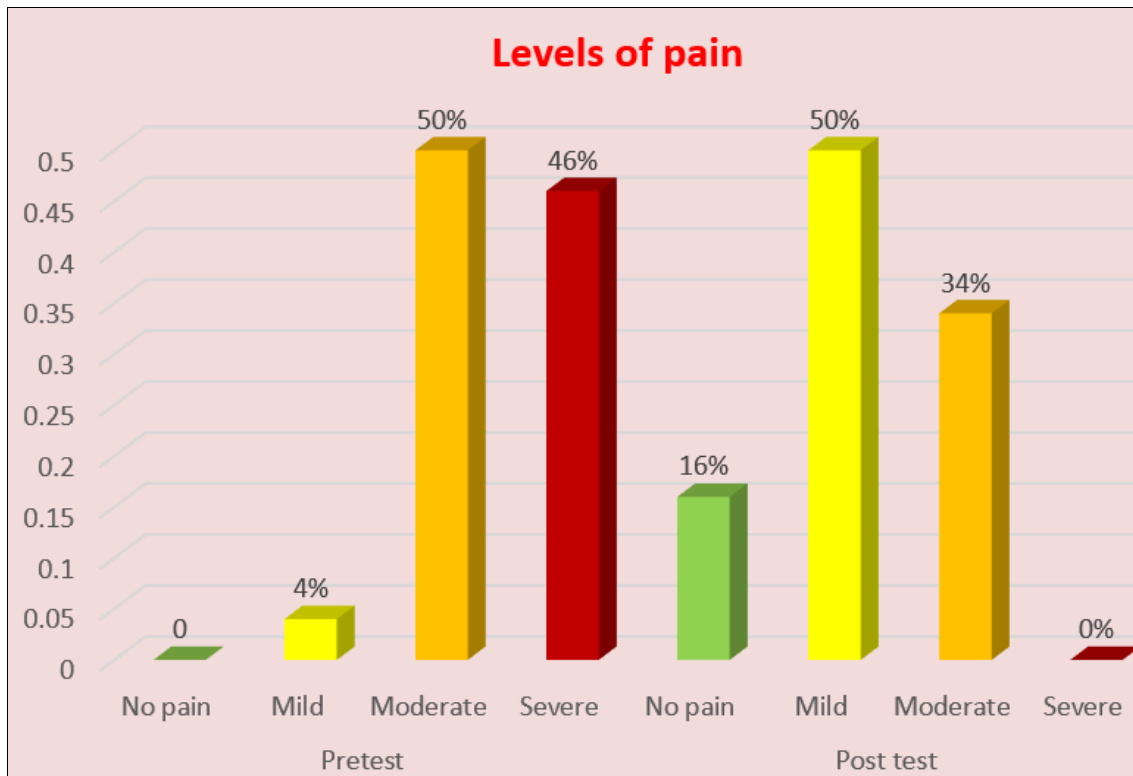


Fig 1: Pre test and post test level of pain

III, Effectiveness of Pelvic Bridge Exercises

Table 4: Mean, standard deviation, standard error of difference and ‘t’ value of pre-test and post-test for pain scores, N=50

Area	Aspects	Mean	Sd	SEMD	Paired t Test
Pain	Pre-test	6.74	1.13	0.18	18.96*
	Post-test	3.18	2.08		

* Significant at 5% level

Table 4 indicates the overall mean for pain scores of pre-test and post-test scores.

The statistical paired ‘t’ implies that the difference in the pretest and post-test value was found statistically significant at 5% level ($p < 0.05$) with a paired ‘t’ value of 18.96. There exists a statistical significance in the difference of pain score indicating the positive impact of pelvic bridge exercises.

Hence, the research hypothesis H_1 is supported. This indicates that the reduction in pain is not by chance and the adolescent girls who exposed to pelvic bridge exercises significantly reduced in their pain.

IV. Association between Level of Pain and Selected Socio Demographic Variables

The computed Chi-square value for association between level of pain of adolescent girls and their selected demographic variables is found to be statistically significant at 0.05 levels for age and family history of dysmenorrhea participants and is not found statistically significant for other socio demographic variables. Therefore, the findings partially support the hypothesis H_2 , inferring that adolescent girls level of pain is significantly associated age and family history of dysmenorrhea.

Conclusion

- Level of pain and severity of dysmenorrhoea among participants during pretest was moderate to severe and

is reduced after exposure to pelvic bridge exercises.

- Pelvic bridge exercises was effective to reduce pain of adolescent girls undergone pelvic bridge exercises
- There was significant association found between the levels of pain scores of participants and some of the socio demographic variables.

Acknowledgement

Not available.

Author’s Contribution

Not available.

Conflict of Interest

Not available.

Financial Support

Not available.

References

1. Abbaspour Z, Rostami M, Najjarsh. The effect of exercise on primary dysmenorrhea. *J Res. Health Sci.* 2012;6(26):40-43.
2. Proctor M, Farquhar C. Diagnosis and management of dysmenorrhoea. *BMJ* 2006;332(7550):1134-1138.
3. French L. Dysmenorrhea. *American Family Physician.* 2005;71(2):285-289.
4. Armour M, Parry K, Al-Dabbas MA, Curry C, Holmes K, MacMillan F, *et al.* Self-care strategies and sources of knowledge on menstruation in 12,526 young women with dysmenorrhea: A systematic review and meta-analysis. *PLOS One.* 2019;14(7):e0220103.
5. Chaudhuri A, Singh A, Dhaliwal L. A randomised controlled trial of exercise and hot water bottle in the management of dysmenorrhoea in school girls of Chandigarh, India. *Indian J Physiol Pharmacol.*

- 2013;57(2):114-22.
6. Harlow SD, Park M. A longitudinal study of risk factors for the occurrence, duration and severity of menstrual cramps in a cohort of college women. *British Journal of Obstetrics and Gynaecology*. 1996;103(11):1134-1142.
 7. Zondervan K, Yudkin PL. The prevalence of chronic pelvic pain in women in the United Kingdom: a systematic review. *British Journal of Obstetrics and Gynaecology* 1998;105:93-99.
 8. Davis AR, Westhoff CL. Primary dysmenorrhoea in adolescent girls and treatment with oral contraceptives. *Journal of Pediatric and Adolescent Gynecology* 2001;14(1):3-8.

How to Cite This Article

Rabab D, Kurup S. To assess the effectiveness of pelvic bridge exercise on dysmenorrhoea among the adolescent girls at selected PU colleges of Kalaburagi. *International Journal of Midwifery and Nursing Practice*. 2024;7(2):01-05.

Creative Commons (CC) License

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International (CC BY-NC-SA 4.0) License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.