



A Pre-Experimental Study to Assess the Effectiveness of Pelvic Rocking Exercise on Dysmenorrhea Among Adolescent Girl's A-One Group Pre Test – Post Test Research Design

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DOI: <https://doi.org/10.5281/zenodo.20606337>

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Abstract

Dysmenorrhoea is one of the most common gynecological problems among adolescent girls and is characterized by painful menstrual cramps occurring before or during menstruation. It can significantly affect daily activities, academic performance, social interactions, and overall quality of life. Despite the availability of pharmacological treatments, non-pharmacological interventions are increasingly being preferred due to their safety, affordability, and ease of practice. Pelvic rocking exercise is a simple and effective exercise that promotes pelvic muscle relaxation, improves blood circulation, and helps reduce menstrual discomfort. The present study was undertaken to assess the effectiveness of pelvic rocking exercise in reducing dysmenorrhoea among adolescent girls. A quantitative research approach with a pre-experimental one-group pre-test and post-test design was adopted. The study was conducted among 100 adolescent girls selected through convenient sampling technique. Data were collected using a structured demographic questionnaire and the WALIDD Scale to assess the severity of dysmenorrhoea.

The intervention was administered for a period of one month, following which a post-test assessment was conducted. The findings of the study revealed a significant reduction in the level of dysmenorrhoea among the participants after practicing pelvic rocking exercises. The post-test scores were considerably lower than the pre-test scores, indicating the effectiveness of the intervention in relieving menstrual pain and discomfort. Statistical analysis demonstrated a significant difference between pre-test and post-test findings, confirming that pelvic rocking exercise is an effective non-pharmacological method for the management of dysmenorrhoea. The study concluded that regular practice of pelvic rocking exercise can improve menstrual comfort and overall well-being among adolescent girls and can be recommended as a safe, cost-effective, and easily accessible nursing intervention in educational and community settings.

Keywords: Dysmenorrhoea, Pelvic Rocking Exercise, Adolescent Girls, Menstrual Pain, Non-Pharmacological Intervention, Menstrual Health

Introduction

Dysmenorrhoea is one of the most common gynecological problems experienced by adolescent girls and is characterized by painful menstrual cramps occurring before or during menstruation. It can adversely affect physical comfort, emotional well-being, academic performance, and participation in daily activities. The prevalence of dysmenorrhoea is high among adolescents, and many girls experience varying degrees of menstrual pain that interfere

with their quality of life. As a result, effective and safe management of dysmenorrhoea has become an important concern in adolescent health care.

Pelvic Rocking Exercise is a simple, non-pharmacological intervention that helps improve blood circulation, relax pelvic muscles, and reduce menstrual discomfort. It is easy to perform, cost-effective, and free from the side effects associated with medication. Regular practice of pelvic rocking exercises may help alleviate menstrual pain and

promote overall well-being among adolescent girls. Therefore, the present study was undertaken to assess the effectiveness of pelvic rocking exercise in reducing dysmenorrhoea among adolescent girls.

Background of the study

Dysmenorrhoea is one of the most common menstrual health problems among adolescent girls. It is characterized by painful menstrual cramps that occur before or during menstruation and may be accompanied by symptoms such as backache, fatigue, nausea, and headache. Dysmenorrhoea can significantly affect the physical and emotional well-being of adolescent girls and interfere with their daily activities.

Adolescence is an important period of growth and development, and good menstrual health is essential for maintaining overall well-being. Severe menstrual pain may lead to school absenteeism, reduced participation in academic activities, poor concentration, and decreased quality of life. Therefore, effective management of dysmenorrhoea is important to promote the health and productivity of adolescent girls.

Various pharmacological and non-pharmacological methods are available for the management of dysmenorrhoea. Although medications provide temporary relief, non-pharmacological interventions are increasingly preferred because they are safe, cost-effective, and free from side effects. Exercise therapy is one such intervention that has shown positive effects in reducing menstrual pain.

Pelvic Rocking Exercise is a simple and effective exercise that helps improve blood circulation, reduce muscle tension, and promote relaxation of the pelvic muscles. Regular practice of pelvic rocking exercises may reduce the severity of menstrual cramps and improve comfort during menstruation. It is easy to perform and can be practiced without any special equipment.

Several studies have reported that pelvic exercises are effective in reducing dysmenorrhoea among adolescent girls. During clinical and community exposure, the investigator observed that many adolescent girls experienced menstrual pain that affected their daily activities and academic performance. Hence, the investigator felt the need to assess the effectiveness of Pelvic Rocking Exercise in reducing dysmenorrhoea among adolescent girls.

Ethical Considerations

Ethical clearance was obtained from the Institutional Ethical Committee of Government College of Nursing, Bilaspur (C.G.). Permission to conduct the study was obtained from the concerned authority of the selected college in Bilaspur (C.G.). Informed consent was obtained from all participants before data collection. Participation in the study was voluntary, and the purpose of the study was clearly explained to the participants. Confidentiality and anonymity of the participants were maintained throughout the study. The participants were assured that the information provided by them would be used only for research purposes. Pelvic Rocking Exercise used in the study was safe, non-invasive, and free from any harmful effects. Proper instructions and demonstrations were provided before the intervention. Participants were allowed to withdraw from the study at any

time without any consequences. All collected data were kept confidential and used only for academic and research purposes. Ethical principles of respect, beneficence, and justice were maintained throughout the research process.

Specific Objective

- To assess the pre-test level of dysmenorrhea among adolescent girls.
- To administer pelvic rocking exercise among adolescent girls of experimental group.
- To evaluate the effectiveness of pelvic rocking exercise among adolescent girls.
- To find out the association between post-test level of dysmenorrhea among adolescent girls with selected socio demographic variables

Hypotheses

- **H₁:** There will be a significant difference between pre-test and post-test mean scores of dysmenorrhoea among adolescent girls.
- **H₂:** There will be a significant association between post-test level of dysmenorrhoea among adolescent girls with their selected socio demographic variables.
- **H₃:** There will be a significant association between post-test level of dysmenorrhoea and selected socio-demographic variables such as age, age at menarche, duration of menstruation, type of family, and dietary pattern.

Methodology

Research Approach

A quantitative research approach was adopted for the present study.

Research Design

A pre-experimental one-group pre-test and post-test research design was adopted to assess the effectiveness of Pelvic Rocking Exercise on dysmenorrhoea among adolescent girls.

Setting of the study

The study was conducted in the selected school of Bilaspur, Chhattisgarh.

Population

The target population consisted of adolescent girls experiencing dysmenorrhoea and studying in the selected school of Bilaspur, Chhattisgarh.

Sample and Sampling Technique

A total of 100 adolescent girls suffering from dysmenorrhoea were selected using a non-probability convenient sampling technique.

Inclusion Criteria

- In the age between 12 to 15 years
- Having regular menstrual cycle for the last three months available during the data collection period
- Having mild and moderate dysmenorrhoea

Exclusion Criteria

- PCOS girls.

- PCOD girls.
- Having regular exercise
- Receiving pharmacological therapies for controlling pain during menstruation.
- Severe and very severe dysmenorrhoea condition
- Any medical, surgical and gynecological problem.

Variables of the study

Independent Variable: Pelvic Rocking Exercise

Dependent Variable: Level of dysmenorrhoea among adolescent girls.

Extraneous Variables

Age, educational status, age at menarche, duration of menstrual flow, menstrual cycle pattern, family history of dysmenorrhoea, dietary habits, physical activity, and previous knowledge regarding menstrual pain management.

Tools For Data Collection

Section A: Demographic Variables

it included age, level of education / class, occupation of father, occupation of mother, types of family, family income/ month of father, which type of food habits, type of residence, body mass index (bmi), age at menarche, duration of menstrual cycle, duration of menstruation flow.

Section B: Dysmenorrhoea Assessment Rating Scale

A Modified WaLIDD Scoring Scale was used to assess the level of dysmenorrhoea among adolescent girls.

Response	Score
No Pain	0
Mild Pain	1
Moderate Pain	2
Severe Pain	3

Higher scores indicated greater severity of dysmenorrhoea. Scores were categorized into mild, moderate, and severe dysmenorrhoea levels.

Section C: Pelvic Rocking Exercise Practice Checklist

A 10-item Pelvic Rocking Exercise Practice Checklist was used to assess the level of dysmenorrhoea among adolescent girls.

Response	Score
None	0
Mild	1-3
Moderate	4-6
Severe	7-9
Very severe	10

Higher scores indicated better performance and compliance with pelvic rocking exercise. Scores were categorized into poor, average, and good levels of practice.

Data Collection Procedure

Formal administrative permission was obtained from the concerned school authority prior to data collection. Informed consent was obtained from the adolescent girls who were willing to participate in the study. A pre-test assessment of dysmenorrhoea was conducted using the

<https://multiresearchjournal.theviews.in>

Modified WaLIDD Scoring Scale and demographic data were collected using a structured questionnaire.

Following the pre-test assessment, pelvic rocking exercise was demonstrated and taught to the participants. The adolescent girls were instructed to perform the pelvic rocking exercise regularly under the supervision of the researcher for the specified period.

After completion of the intervention period, a post-test assessment of dysmenorrhoea was conducted using the same Modified WaLIDD Scoring Scale. The collected data were organized and analyzed to determine the effectiveness of pelvic rocking exercise in reducing dysmenorrhoea among adolescent girls.

Plan for Data Analysis

The data collected were organized, tabulated, and analyzed using descriptive and inferential statistics. Frequency and percentage distribution were used to analyze the demographic variables of adolescent girls. Mean and standard deviation were used to assess the pre-test and post-test levels of dysmenorrhoea among adolescent girls. Paired t-test was used to determine the effectiveness of pelvic rocking exercise by comparing the pre-test and post-test mean scores of dysmenorrhoea among adolescent girls. Chi-square test was used to determine the association between the post-test level of dysmenorrhoea and selected demographic variables. The findings were presented in the form of tables and figures for clear interpretation and understanding.

Report writing

The findings of the study were organized, analyzed, interpreted, and presented in the form of tables, figures, and graphs. The results were discussed in relation to the objectives, hypotheses, and findings of previous studies. The report was prepared systematically under different chapters, followed by discussion, conclusion, implications, limitations, and recommendations for future research.

Dhruvi Patel And Karishma Barot (2021) Dysmenorrhea is a common gynecological condition with painful menstrual cramps of uterine origin. a cross-sectional study on 500 adolescent girls in North Gujarat to assess knowledge, beliefs, and information regarding dysmenorrhoea. it is most common gynecological complaints in adolescence and young women in North Gujarat. Purpose: This study was planning to assess knowledge, beliefs and source of information regarding dysmenorrhea. Materials and Methodology: A cross sectional study was performed among 500 Adolescent girls in North Gujarat to determine the prevalence of dysmenorrhea A self-questionnaire was used for the same. Result: In this study 300 out of 500 adolescent girls were included for investigate prevalence of dysmenorrhea among adolescent girls in North Gujarat. So according this study, prevalence of dysmenorrhea among adolescent girls in North Gujarat (94.8%). Conclusion: Dysmenorrhea is to be highly prevalent among adolescent girls in North Gujarat.

Discussion

Comparison of Pre-test and Post-test Scores through Mean, Mean %, and SD The study showed that the level of dysmenorrhoea among adolescent girls was reduced after

the implementation of pelvic rocking exercise.

In the study group, the pre-test mean score of dysmenorrhoea was higher than the post-test mean score, indicating a reduction in menstrual pain and discomfort following the intervention. The Mean%, and Standard Deviation were also reduced in the post-test assessment, demonstrating the effectiveness of pelvic rocking exercise in managing dysmenorrhoea among adolescent girls.

Pelvic rocking exercise helped to improve pelvic muscle flexibility, enhance blood circulation, reduce muscle tension, and relieve menstrual cramps. Regular practice of the exercise contributed to a significant reduction in pain intensity and discomfort experienced during menstruation.

Overall, the findings of the study revealed that pelvic rocking exercise was an effective non-pharmacological intervention in reducing dysmenorrhoea among adolescent girls.

Results

The findings of the study revealed that pelvic rocking exercise had significant effectiveness in reducing dysmenorrhoea among adolescent girls. The intervention was found to be simple, safe, cost-effective, and beneficial in relieving menstrual pain and discomfort. Regular practice of pelvic rocking exercise contributed to a reduction in the severity of dysmenorrhoea and improved the overall well-being and daily activities of adolescent girls in the selected school of Bilaspur, Chhattisgarh.

Conclusion

Paired 't' test was used to assess the significant difference between pre-test and post-test scores of dysmenorrhoea among adolescent girls. Chi-square test was used to determine the association between post-test level of dysmenorrhoea and selected socio-demographic variables.

The findings of the paired 't' test revealed that the adolescent girls showed a significant reduction in dysmenorrhoea following the pelvic rocking exercise intervention. The calculated t-value was higher than the table value at 0.05 level of significance, indicating a significant difference between pre-test and post-test scores. Therefore, the null hypothesis (H_0) was rejected and the research hypothesis (H_1) was accepted. It was concluded that pelvic rocking exercise was an effective, safe, simple, and cost-effective non-pharmacological intervention for reducing dysmenorrhoea among adolescent girls.

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