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## Original Research Article

## A quasi-experimental study to evaluate the effectiveness of a structured teaching programme on knowledge regarding dysmenorrhea among adolescent girls at selected schools in Madurai district

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## ABSTRACT

**Background of the Study:** Adolescence is indeed a transitional phase of growth and development that occurs between childhood and adulthood, typically spanning from 10 to 19 years of age, as defined by the World Health Organization (WHO). During this period, individuals undergo rapid physical, cognitive, and psychosocial changes, which can influence their emotions, thoughts, decision-making abilities, and interactions with the world. It is worth noting that psychological factors, including anxiety and anger, may contribute to dysmenorrheal problems, which are painful menstrual cramps. However, as women age, dysmenorrheal often decreases and may completely resolve after childbirth.

**Aim of the Study:** The study aims to assess the effectiveness of a structured teaching program in improving knowledge about dysmenorrhea among adolescent girls. By implementing this program, researchers seek to measure the impact it has on enhancing the understanding and awareness of dysmenorrhea among this specific population. The evaluation will provide valuable insights into the effectiveness of structured teaching in improving knowledge about dysmenorrhea among adolescent girls.

**Materials and Methods:** In a quasi-experimental research study conducted in the Madurai district, a one-group pre-test and post-test design was utilized. A simple random sample of 40 adolescent girls participated in the study. A structured teaching program was implemented, covering all aspects of dysmenorrhea. The knowledge of the adolescent girls was assessed both immediately before and a week after the structured teaching program.

**Result:** The results of the study indicated that the majority of the adolescent girls (47%) were 14 years old, and a significant proportion (62%) had no prior information about dysmenorrhea. In the pre-test, all of the adolescent girls (100%) demonstrated inadequate knowledge regarding dysmenorrhea. However, in the post-test, 80% of the participants showed adequate knowledge, while 20% had moderate knowledge on the subject. The paired t-test analysis revealed a statistically significant improvement in knowledge from the pre-test ( $10.3 \pm 2.87$ ) to the post-test ( $41.17 \pm 8.75$ ) ( $p < 0.05$ ), indicating that the structured teaching program was effective in enhancing knowledge about dysmenorrhea among the adolescent girls in the study.

**Conclusion:** The present study concludes that recently dysmenorrhea is a quite common problem all over the world affecting the quality of life of women significantly. Despite the growing awareness, there remains a considerable deficiency of knowledge on causes, treatment, and home remedies of dysmenorrhea. Further research is required for a large population including women from various backgrounds to better assess and strategize to manage this rising problem. It will help future mothers to take care of them during menstruation, and they will educate the future generation regarding dysmenorrhea.

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## 1. Introduction

In many ways, adolescent development drives the changes in the health problems between childhood and adulthood – such as the increase with age in sexual and reproductive health problems, mental illness, and injuries.<sup>1</sup> Arousal of certain health problems in adolescence, including substance use disorders, mental disorders, and injuries, likely reflects both the biological changes of puberty and the social context in which adolescents are growing up. Most of the health-related behaviors that arise during adolescence have implications for both present and future health and development.<sup>2</sup>

## 2. Background of the Study

Adolescence is a transitional phase of growth and development between childhood and adulthood. The World Health Organization (WHO).<sup>3</sup> Adolescence is the part of life between childhood and adulthood, from 10 to 19 years. It is a unique stage of human development and also an important time for laying the foundations for good health. Adolescents experience quick physical, cognitive, and psychosocial growth. This affects how they might feel, think, make decisions, and interact with the world around them. Psychological factors such as anxiety and anger may also contribute to dysmenorrheal problems. As woman become older dysmenorrheal often decrease and completely resolves after childbirth.

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. Of these, dysmenorrhea is one of the common problems experienced by many adolescent girls.

Primary dysmenorrhea is painful menstruation with identifiable pelvic pathology.<sup>4,5</sup> In secondary dysmenorrheal pelvic pathology such as endometriosis tumor or pelvic inflammatory disease (PID).<sup>6</sup> Contributes to symptoms. Patients with secondary dysmenorrheal frequently have pain that occurs several days before ovulation and occasionally with intercourse. A complete pelvic examination is performed to rule out possible disorders such as endometritis, PID, adenomyosis, and fibroid uterus.<sup>7,8</sup>

Dysmenorrheal incidence of 33.5% was reported by Nag (1982) among adolescent girls in India, A study done in Sweden (Milson 1982) showed take more than 50% of all menstruating women experience some discomfort. It has also been reported by a senior obstetrician that probably 5 – 10% of girls in their late terms suffer from severe spasmodic dysmenorrheal, interrupting their educational and social life (Dawn 1990).<sup>9–11</sup> The study was carried out to estimate the

prevalence of dysmenorrheal and it is common symptoms to determine the relationship between dysmenorrheal and selected physiological parameters like body surface areas like general health status and find the association between the dysmenorrheal status and intensity of pain with selected physiological symptoms.

Based on the above information the researcher feels that the knowledge of dysmenorrhea for adolescent girls is important to reduce their stress during menstruation. Hence, the present study was undertaken to evaluate the effectiveness of the "Structured Teaching Programme" to create awareness and educate on dysmenorrhea among adolescent girls.

## 3. Statement of the Problem

A quasi-experimental study to evaluate the effectiveness of a structured teaching programme on knowledge regarding dysmenorrhea among adolescent girls at selected schools in Madurai district.

## 4. Objectives

1. To assess the existing knowledge of adolescent girls regarding dysmenorrhea.
2. To evaluate the effectiveness of a structured teaching programme on the knowledge of adolescent girls regarding dysmenorrhea.
3. To find out the association between the post-test knowledge and with selected demographic variables.

## 5. Conceptual Framework

The Conceptual framework for the present study is Lewin and Brackers (1975) Health Belief Model.

## 6. Methodology

A quasi-experimental design was adopted for this study. A simple random sampling technique without replacement was used to select the samples and the size of the sample was 40. Adolescent girls were selected as a sample for this study. A structured questionnaire was developed and used to assess the knowledge among adolescent girls on dysmenorrhea. The tools were validated by experts and found to be valid for this study. The reliability was established through the test-pre-test method. Karl Pearson's coefficient of correlation was computed and the reliability was found to be 0.96.

## 7. Results and Discussion

The majority 19(47%) of the adolescent girls were 14 years. The majority 25(62%) of them never had information regarding dysmenorrhea.

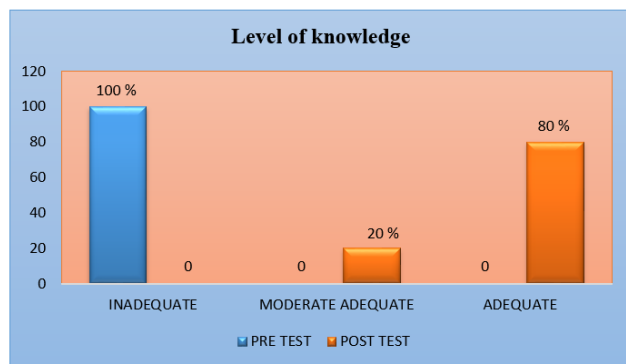
Regarding existing knowledge on dysmenorrhea among adolescent girls, all adolescent girls 40 (100%) had

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inadequate knowledge regarding dysmenorrhea in the pre-test. In post post-test, 32 (80%) adolescent girls had adequate knowledge, and 8 (20%) adolescent girls had moderate knowledge regarding dysmenorrhea. Regarding the effectiveness of the structured teaching program, the level of post-test knowledge showed 48 (80%) had adequate knowledge and 12 (20%) had moderately adequate knowledge, The post-test knowledge ( $10.3 \pm 2.87$  to  $41.17 \pm 8.75$  :  $p < 0.001$ ; paired t- test) shows that the structured teaching program was effective.

### 7.1. Existing knowledge of adolescent girls on dysmenorrhea



**Figure 1:** Distribution of pretest and posttest level of knowledge on dysmenorrhea among adolescent girls. N=40

Regarding the association between the post-test level of knowledge with demographic variables, the results revealed that there was no significant association between selected demographic variables like age, religion, father education, menstrual pattern, and dietary pattern. There is a significant relation between the knowledge and type of family, mothers' education, monthly income, and source of information.

### 8. Conclusion

The present study concludes that recently dysmenorrhea is a quite common problem all over the world affecting the quality of life of women significantly. Despite the growing awareness, there remains a considerable deficiency of knowledge on causes, treatment, and home remedies of dysmenorrhea. Further research is required for a large population including women from various backgrounds to better assess and strategize to manage this rising problem. It will help future mothers to take care of them during menstruation, and they will educate the future generation regarding dysmenorrhea.

### 9. Implications

1. This study finding will encourage community health nurses to create awareness among the

public on dysmenorrhea by intensifying individual health education and mass health education with appropriately designed audio-visual aids.

2. The nurse must implement home remedies for dysmenorrhea to create awareness, to promote knowledge.
3. The present study will help the nursing administrative authority to recognize the need for developing the appropriate formal education programme for adolescent girls with dysmenorrhea.
4. The study emphasizes the need for educating the nursing personnel through in-service or continuing education programs to update their knowledge regarding dysmenorrhea.
5. The findings of the study help to expand the scientific body of professional knowledge upon which further research can be conducted.

### 10. Recommendations

1. Similar study can be undertaken by utilizing other domains like attitude and practice.
2. A similar study can be undertaken with a large number of samples which might lead to generalization.
3. A similar study can be conducted as a comparative study between urban areas.
4. The structured teaching programme can be administered periodically among the public to create awareness regarding dysmenorrhea.

### 11. Source of Funding

None.

### 12. Conflict of Interest


None.

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