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## Effectiveness of hot application on dysmenorrhea

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### Abstract

Dysmenorrhea is abdominal cramping pain or discomfort associated with menstrual flow. The degree of pain and discomfort alters with the individual. 1 Dysmenorrhea is the most common gynaecological dysfunction<sup>[1]</sup>

**Objectives:** (1) To assess the level of dysmenorrhea before hot application (2) To assess the level of dysmenorrhea after hot application (3) To compare the effectiveness of hot application on level of dysmenorrhea (4) To associate the level of dysmenorrhea with their demographic variables.

**Methodology:** A Pre-experimental study research was selected to conduct the study and by using purposive sampling technique, a group of 30 adolescent girls were selected for the study from Billroth College of Nursing which comprises of 180 adolescent girls.

**Major Findings:** Regarding dysmenorrhea, in the pretest, most of the adolescent girls (53.33%) had very severe pain, 33% had severe pain and 6.7% had worst pain. But in posttest 63% girls had no pain, 30% had mild pain and only 6.66% had moderate pain. Paired 't' test shows 't' level of 20.93 which is significant at  $p < 0.05$  level.

**Conclusion:** The study findings revealed that there was a significant reduction in level of dysmenorrhea among adolescent girls after giving hot application. This highlights that the health education programme is to be ventured and to be installed in areas of the health care. Outreach programme can be organized and conducted by the health personnel on dysmenorrhea, specially concentrating on the under privileged section the society.

**Keywords:** hot application, dysmenorrhea, gynaecological dysfunction

### 1. Introduction

"Every human being is a author of their health and disease" The menstrual cycle is a complex process involving the reproductive and endocrine system. Dysmenorrhoea is abdominal cramping pain or discomfort associated with menstrual flow<sup>[1-3]</sup>. The degree of pain and discomfort varies with the individual. Dysmenorrhoea is the most common gynaecological dysfunction. Medication is usually utilised for all clients with moderate to severe painful menstruation. Apart from pharmacological agents, several non-pharmacological measures have been used including relaxation therapy, hypnosis, manipulation, psychotherapy, acupuncture, biofeedback techniques, surgery etc. Despite the high prevalence of painful menstruations, frequency and severity is very often underestimated<sup>[4, 5]</sup>.

### 2. Need for study

Adolescent's dysmenorrhoeal problem is common throughout the country. Adolescent girls are more vulnerable group, particularly in developing countries where they are traditionally married at an early age and are exposed to greater risk of acquiring reproductive diseases<sup>[7-9]</sup>. Investigators from their experience had found that most of the adolescent girls suffer from various level of dysmenorrhoea<sup>[10,11]</sup>. Most of the adolescents are not aware that hot application is effective in reducing dysmenorrhoea. So, the investigator have decided to impart the knowledge of hot application on dysmenorrhoea among adolescents effectively by health education. There the investigator has decided to impart hot application on dysmenorrhoea among adolescents<sup>[6,7]</sup>.

### 3. Statement of the Problem

A Pre-experimental study to assess the effectiveness of hot application on level of dysmenorrhea among adolescent girls at Billroth College of Nursing, Chennai.

### 4. The objectives of the study were

1. To assess the level of dysmenorrhoea before hot application.
2. To assess the level of dysmenorrhoea after hot application.
3. To compare the effectiveness of hot application on dysmenorrhoea.
4. To associate the pre-test level of dysmenorrhoea with their demographic variables.

Based on these objectives, the formulated null hypotheses were

**H<sub>0</sub>1:** There is no a significant difference in the level of dysmenorrhoea between, before and after hot application among adolescent girls.

**H<sub>0</sub>2:** There is no significant association between level of dysmenorrhoea and their demographic variables.

The study was done in a sequential manner by using a Conceptual Framework based on King's Goal Attainment Theory which comprises of four paradigms- Person, Environment, Health and Nursing.

### 5. Methodology

**5.1 Design:** Pre Experimental Design (One Group Pre Test and Post Test)

G1 O1 X O2

O1- Pre-Test level of dysmenorrhoea

O2- Post-Test level of dysmenorrhoea

X- Hot application

**5.2 Setting:** The study was conducted in Billroth College of Nursing, Chennai

**5.3 Target population:** All adolescents at Billroth College of nursing

**5.4 Sampling method and technique:** 30 students fulfilling the inclusive criteria were selected using Non Randomized purposive sampling technique.

### 6. Tools for data collection

**6.1 Section A:** Demographic Data

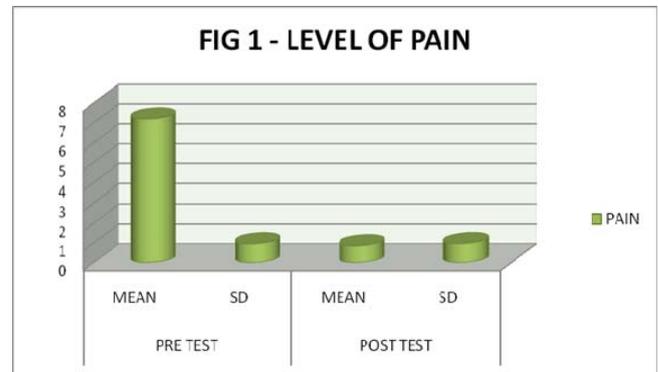
**6.2 Section B:** Visual Analogue Scale to assess pain level  
Tools were validated by 5 research experts and reliability was obtained by Test- Retest method. The "r" value was 0.8 and considered as reliable

**6.3 Pilot study:** Pilot study was conducted with 10 % of the samples and feasibility was obtained to do the main study.

**6.4 Data Collection Procedure:** The study was conducted on the samples following the ethical considerations. After the pre- assessment of the level of dysmenorrhoea, hot application is given using hot water bag on lower abdomen for 20 – 30 minutes, once a day for two days during menstruation. Then posttest level of dysmenorrhoea was assessed using visual analogue scale.

### 7. Data Analysis

The data analysis was done using descriptive and inferential statistics. The results revealed that in pretest most of adolescent girls 16 (53.3%) had very severe pain, 10 (33%) adolescent girls had severe pain and 2 (6.7%) had worst possible. But in post-test, 19 (63%) girls had no pain, 9 (30%) had mild pain and only 2 (6.66%) had moderate pain (Fig.1). Paired 't' test shows 't' level of 20.93 which is significant at  $p < 0.05$  level.



The study also revealed that there was a significant association between level of dysmenorrhoea and a few demographic variables like age, exercise, previous knowledge on dysmenorrhoea, age of menarche, usage of other therapies and year of study.

### 8. Conclusion

The study findings revealed that there was a significant reduction in level of dysmenorrhoea among adolescent girls after giving hot application. This highlights that the health education programme is to be ventured and to be installed in the areas of the health care. Outreach programme can be organized and conducted by the health personnel on dysmenorrhoea, specially concentrating on the under privileged section of the society.

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