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Effect of foot reflexology on dysmenorrhea among adolescent girls in a selected nursing hostel at vijayapur

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ABSTRACT

Background

Dysmenorrhoea is found to be the leading cause of short term school absenteeism from 38% - 45% mentioned in different studies, 58% reported decreased daily activities and socialization 46%. In a view these facts, it was felt necessary by the investigator to give foot reflexology for dysmenorrhoea among adolescent girls and assessment of its effectiveness for reducing dysmenorrheal.

Objectives

The study aimed at the assessing the severity of pain and to know the effect of foot reflexology on dysmenorrhoea, finding the association between the pre intervention intensity of dysmenorrhoea with their selected socio demographic variables of adolescent girls

Materials and methods

The assessment of severity of pain was done by Numerical Pain Rating Scale and is followed by administration of foot reflexology and the effect of foot reflexology was found out by using Numerical Pain Rating Scale after giving the massage.

Results

The pain score was high in the pre test than post test. Mean pre test pain score was 4.025 and mean post test score was 2.425 which is significantly more at p-value 2.022. Findings of the study indicated that the foot reflexology massage has an effect on dysmenorrhoea among adolescent girls. There was significant association between dysmenorrhoea and dietary pattern but there was no significant association between dysmenorrhoea and other selected socio demographic variables such as age, education, family income, age at menarche, regularity of menstruation, duration of menstrual flow, day of menstrual pain, associated symptoms of dysmenorrhoea.

Conclusion

The study concludes that the enhancement of health condition of adolescent girls who were suffering from dysmenorrhoea is greatly required to reduce school absenteeism, improve their academic performance and their performance at work place by giving the foot reflexology.

Keywords: Foot reflexology, Dysmenorrhoea, Adolescent girls.

INTRODUCTION

Puberty is the period in life which the reproductive organs undergo a surge in development and reaches maturity. Puberty is the developmental stage in which girl is gradually transformed from a close bud to full blown flower of feminine beauty. It all happens in adolescent period. Puberty culminates in the onset of menstruation, the first period being called the menarche. One of the major physiological changes that take place in adolescent girls is the onset of menarche [1]. Menstruation is the natural and normal physiological process for all women. Menstruation is normal physiological impact of each girl life. It is monthly uterine bleeding for 3-5 days, after 28 days from puberty to until menopause, which is often associated with problems of irregular menstruation, excessive bleeding, and dysmenorrhoea. Dysmenorrhoea is common in adolescence [3]. Dysmenorrhoea is a Greek term to describe painful uterine contractions during menstruation and is one of the most common disorders in women. It is a medical condition of pain during menstruation that interferes with daily activities, as defined and still, dysmenorrhoea is often defined simply as menstrual pain, or at least menstrual pain that is excessive. [5] Dysmenorrhoea is the most prevalent problem in women with different intensities which involves 45 to 95% of women. The prevalence of dysmenorrhoea in Iran has reported as 74 to 86.1 percent [6]. Usually dysmenorrhoea is differentiated into primary and secondary dysmenorrhoea. An exploratory co-relational study was conducted in Gwalior at Madhya Pradesh, India with the objectives of the study were the prevalence of dysmenorrhoea in adolescent girls and to study the severity of problem associated with symptoms and general health status, 970 adolescent girls of age 15-20 years were taken as sample. The results of the study showed that prevalence of dysmenorrhoea among adolescent girls was found to be 79.6%. Most of them 37.96% suffered regularly by dysmenorrhoea severity². There are various methods for the management of dysmenorrhoea both pharmacological and non pharmacological methods. The pharmacological methods of pain relieving including receiving narcotics drugs such as Pethidine, using Entonox gas and the types of topical anesthetics such as

puddental block, paracervical block, spinal block and epidural analgesia and etc...Pharmaceutical measures are often expensive and have harmful effects for reducing pain. In the pharmacological methods, the pain feeling would be reduced physiologically but psychological and emotional conditions of the adolescents are ignored. [1] The non-pharmacological methods including massage, reflexology, touch therapy, relaxation, dancing, heat & cold therapy (e.g. taking a shower or hot bath), trance subcutaneous nerve stimulation and water therapy, acupressure, aromatherapy and music therapy. Some believed these techniques had been very effective on pain relief. Alternative and complementary therapies for the treatment of dysmenorrhoea are known to help ease off the pain during menstruation. They are simple ways to obtain relief from the symptoms. Some of the alternative and complementary therapies for painful menstrual periods are warm bath, hot water bag massage, exercises, yoga, and ginger tea and reflexology etc [9].

Reflexology, or zone therapy, is an alternative medicine involving the physical act of applying pressure to the feet, hands, or ears with specific thumb, finger, and hand techniques without the use of oil or lotion [11]. The Reflexology Association of Canada defines reflexology as: "A natural healing art based on the principle that there are reflexes in the feet, hands and ears and their referral areas within zone related areas, which correspond to every part, gland and organ of the body. Through application of pressure on these reflexes without the use of tools, crèmes or lotions, the feet being the primary area of application, reflexology relieves tension, improves circulation and helps promote the natural function of the related areas of the body" [10]. Reflex massage is used as a useful treatment method in China, Egypt and India for the hundreds of years. Reflexology, or zone therapy, Dr Fitz Jerald introduced some parts of body such as ear, nose and throat as treatment points for the first time in early 1900 in south of America. According to this, the energy is following through vertical pathways all over the body from foot to head. So, pressure on a reflex point can effect on the whole body such as glands, bones and muscles. One of the proposed theories is that there are canals in the body, which the life power or the vital energy follows through them from feet to whole organs of the body and any

barrier in this flow would finally cause disease [11].

STATEMENT OF THE PROBLEM

“Effect of foot reflexology on dysmenorrhoea among adolescent girls in a selected nursing hostel at vijayapur.”

OBJECTIVES OF THE STUDY

1. To assess the intensity of dysmenorrhoea among adolescent girls as measured by the Numerical Pain Rating Scale.
2. To evaluate the effectiveness of foot reflexology on dysmenorrhoea among adolescent girls as measured by the same Numerical Pain Rating Scale.
3. To find out the association between the pre intervention intensity of dysmenorrhoea with their selected socio demographic variables of adolescent girls.

Operational definitions

Effectiveness

Effectiveness refers to the extent to which the foot reflexology will achieve the desired results in reducing the menstrual pain.

Foot reflexology

Foot reflexology refers to the therapeutic method of applying pressure to the specific area of the feet, the reflex points helps to relieve the menstrual pain.

Dysmenorrhoea

Dysmenorrhoea refers to the discomfort due to pain during menstruation and it is assessed in terms of intensity expressed by the adolescent girls.

Adolescent girls

Adolescent girls refer to girls between the age group of 17-20 years staying at selected nursing hostel.

Assumptions

1. Dysmenorrhoea is common among adolescent girls.
2. Foot reflexology will have effect on dysmenorrhoea.

Delimitation

The study is limited to

1. Dysmenorrhoea among adolescent girls.
2. Adolescent girls aged between 17-20 years only.

Hypotheses

The following hypotheses will be tested at 0.05 level of significance.

H₁: There will be significant difference between pre test scores and post test scores of dysmenorrhoea among adolescent girls as measured by Numerical Pain Rating Scale.

H₂: There will be significant association between the pre test scores of dysmenorrhoea with their selected socio demographic variables of adolescent girls.

Research Design

Pre Experimental one group pre-test and post-test design was used for this study.

Population

In the present study the population and of the study consisted of adolescent girls between 17-20 years, who were suffering from dysmenorrhoea and staying in the selected nursing hostel at Vijayapur.

Sample and Sample Size

In the present study the sample consisted of 40 adolescent girls who were suffering from dysmenorrhoea and staying in the selected nursing hostel at Vijayapur.

Sampling Technique

In this study, non-probability convenient sampling technique was used to select the samples.

Criteria for Sample Selection

The sampling frame structured by the researcher included following criteria.

Inclusion Criteria

1. Adolescent girls who were suffering from dysmenorrhoea.
2. Adolescent girls who were in the age group 17-20 years.
3. Adolescent girls who were willing to participate in the study.
4. Adolescent girls who were available at the time of data collection.

Exclusion**Criteria**

1. Adolescent girls who were having other gynecological disorders.
2. Adolescent girls who were under treatment.

Setting of the study

In this study the investigator selected the BLDEA'S nursing Hostel at Vijayapur as the setting of the study.

RESULTS OF STUDY**Section-1**

Table no – 1. Distribution of respondents overall pre test and post test score levels.
n = 40

Intensity of dysmenorrhoeic pain	Number of Participants			
	Pre test		Post test	
	Frequency	Percentage	Frequency	Percentage
No pain	00	00%	06	15%
Mild pain	17	42.5%	22	55%
Moderate pain	22	55 %	12	30%
Severe pain	01	2.5%	00	00%
Total	40	100%	40	100%

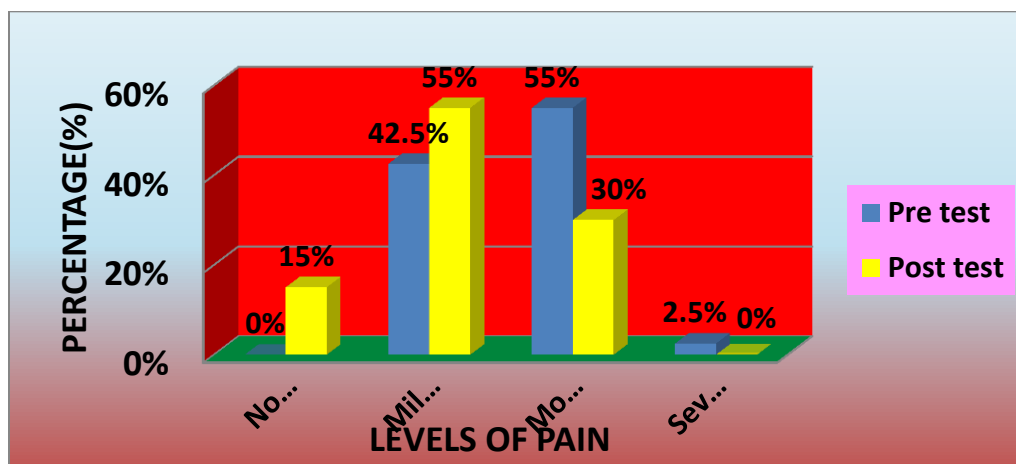


Figure 1: Overall pre test and post test levels of dysmenorrhoeic pain scores of respondents.

Table No – 2: Effectiveness of foot reflexology on management of dysmenorrhoea.
n = 40

	Mean	Standard deviation	Standard error	t-value	p-value	Significance
Pre test	4.025	4.19	0.6624			
Paired 't' test				12.67	2.022	Significant
Post test	2.425	1.531	0.2420			

The data presented in the above table shows that mean pre test pain scores was 4.025 when compared to mean post test pain score was 2.425.

The significant t-value 12.67 is more than p- value 2.022. So the foot reflexology was effective in reducing dysmenorrhoea.

Table No – 3. Association between pre test scores level of dysmenorrhoea with their selected socio demographic variables of respondents.

Variables	<Median	≥Median	D.F	Chi - square value	p- value	Inference
Age						
18 years	00	02	1	0.00228	3.84	NS
19 years	09	10				
20 years	08	11				
Educational status						
GNM Nursing	05	07	1	0.56	3.84	NS
B.Sc Nursing	13	15				
Family income						
<5000/month	3	5	1	0.6731	3.84	NS
5001-10,000/month	5	5				
10001-15,000/month	5	10				
>15,000/month	5	10				
Dietary pattern						
Vegetarian	8	10	1	4.561	3.84	S
Mixed	10	12				
Age at menarche						
11-13 years	5	3	1	0.5378	3.84	NS
13-15 years	10	12				
>15 years	3	7				
Regularity of Menstruation						
Regular	12	11	1	3.34	3.84	NS
Irregular	4	13				
Day of menstrual flow						
<3days	2	1	1	2.14	3.84	NS
3-4 days	11	7				
4-5 days	5	11				
>5days	0	3				
Duration of menstrual pain						
1 st day	11	15	1	0.0758	3.84	NS
2 nd day	3	4				
3 rd day	3	1				
Associated symptoms of dysmenorrhoea						
Vomiting	4	7	1	0.588	3.84	NS
Diarrhea	1	0				
Headache	5	7				
Giddiness	8	8				

S = significant

NS =Not significant

DISCUSSION

Dysmenorrhoea among adolescent girls was assessed with Numerical Pain Rating Scale. In pre test, 42.5% participants have mild pain, 55% participants have moderate pain and remaining 2.5% participants have severe pain. The mean pre test pain score was 4.025 found to be higher than the mean post test pain score 2.425. The paired 't' test implies that the difference in the pre test and post test value was found to be statistically significant at $p < 2.0200$. So there is enough evidence that foot reflexology is effective for the dysmenorrhoea among adolescent girls. The chi square values showed that, there is significant association between the pre test levels of dysmenorrhoea with their dietary pattern among adolescent girls. But there was no association between pre test level of dysmenorrhoea among adolescent girls and other demographic variables such as age, education status, family income,

dietary pattern, duration of menstrual pain, regularity of menstruation, day of menstrual pain, associated symptoms of dysmenorrhoea.

CONCLUSION

The study concluded that the mean pretest score was 4.025 and mean post test score was 2.425 which is significant at p - value was less than 2.0200. It indicates that foot reflexology is effective in reducing dysmenorrhoea among adolescent girls. On the other hand it was observed that there is significant association between the pre test level of dysmenorrhoea among adolescent girls and their dietary pattern and also there is no association between other socio demographic variables such as age, educational status, family income, duration of menstrual pain, regularity of menstruation, day of menstrual pain, associated symptoms.

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