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An Experimental Study to Assess the Effectiveness of Acupressure on Dysmenorrhea among Adolescent Girls in Hilton Matriculation Higher Secondary School at Chrompet, Chennai

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Abstract:

Acupressure is an ancient healing art that uses fingers to press key points on the surface of the skin to stimulate body's natural self-curative abilities. When these points are pressed, they release muscular tension and promote the circulation of blood and body's life force to aid healing. Acupressure therapy is effective in the relief of stress-related ailments, and is ideal for self-treatment and preventive healthcare for boosting the immune system. Acupressure releases tension, increases circulation, reduces pain, and develops vibrant health. Hormonal changes in the body during menstruation can cause severe pain and increased menstrual blood flow. To ease these symptoms, acupressure is applied on the specific points to have a strong influence on blood flow and help stop the pain. The merit of utilizing acupressure therapy as a nursing intervention has been proposed in the literature as a non-invasive measure that offers comparable effects to acupuncture therapy. Acupressure for dysmenorrhea may offer women a noninvasive, cost-free, and timely way to manage dysmenorrhea on their own, thereby saving time, cost, and effort.

Keywords: Effectiveness, acupressure, dysmenorrhea, adolescent girl

1. Introduction

Adolescent girls throughout the world and more in developing countries are at a greater risk of reproductive health adverse consequences. Dysmenorrhea is the leading cause of recurrent short term school absent in adolescent girls and a common problem for women of reproductive age. Dysmenorrhea is defined as painful menses in women with normal pelvic anatomy began during adolescent lasting one to three days.

Recent research focusing on complementary and alternative interventions for dysmenorrhea includes the use of muscle relaxation therapy, magnetic therapy, reflexology, hand acupuncture, aroma therapy and acupressure. Acupressure is based on traditional Chinese medicine and share the main principle of opening and harmonizing an obstructed meridian by stimulating surrounding acupuncture points.

2. Objectives

1. To assess and compare the pre and post assessment level of dysmenorrhea within experimental group in Hilton Matriculation Higher Secondary School at Chrompet, Chennai.
2. To assess and compare the pre and post assessment level of dysmenorrhea within control group in Hilton Matriculation Higher Secondary School at Chrompet, Chennai.
3. To assess and compare the effectiveness of acupressure on dysmenorrhea among adolescent girls between in experimental and control group.
4. To associate the post assessment level of dysmenorrhea with selected demographic variables in experimental group.

3. Methodology

Evaluative research approach was adopted in this study. True experimental research design was used. The sample of the study was adolescent girls who had moderate and severe pain during menstruation and aged between 12-16years studying 7th-11th standard in Hilton Matriculation Higher Secondary School who fulfilled the inclusive criteria of the sample selection. The study sample consists of 60 adolescent girls in that 30 samples were in experimental group and 30 samples were in control group. Probability simple random sampling technique using lottery method was used to select the samples for experimental and control group. The primary purpose of

acupressure application on Sanyinjio point 6 (Sp6) was to reduce the menstrual pain perception. It is acting by decreasing the level of pain impulses recognized by adolescent girls by releasing endorphins and increasing blood supply to the uterus.

4. Results

S.NO	Level of Pain	Experimental Group N=30			
		Pre Test		Post Test	
		n	%	n	%
1.	No Pain (0)	0	0	0	0
2.	Mild Pain (1-3)	0	0	16	53
3.	Moderate Pain (4-6)	15	50	14	47
4.	Severe Pain(7-9)	15	50	0	0
5.	Worst Pain (10)	0	0	0	0

Table 1: Pre and Post Assessment Level of Dysmenorrhea among Adolescent Girls in Experimental Group

This table shows that in experimental group 15(50%) had moderate pain and 15(50%) had severe pain in pre test score. 16 (53%) were mild pain and 14(47%) had moderate pain in post assessment of experimental group.

S. No	Level of Pain	Control Group N=30			
		Pre Test		Post Test	
		n	%	n	%
1.	No Pain (0)	0	0	0	0
2.	Mild Pain (1-3)	0	0	1	3
3.	Moderate Pain (4-6)	15	50	14	47
4.	Severe Pain(7-9)	15	50	15	50
5.	Worst Pain (10)	0	0	0	0

Table 2: Pre and Post Assessment of Level of Dysmenorrhea among Adolescent Girls in Control Group

This table reveals that in control group 15(50%) of had moderate pain, 15(50%) had severe pain during pre assessment. In post test 1(3%) had mild pain, 14(47%) of had moderate pain and 15(50%) had severe pain.

S. N	Group	Before Intervention (Pre Test)		After Intervention (Post Test)		Effectiveness (Difference)		Effectiveness 't' Test
		Mean	SD	Mean	SD	Mean	SD	
1.	Experimental Group	6.5	1.5	3.3	1.4	3.2	1.5	11.9 P<0.001***
2.	Control Group	6.4	1.5	6.3	1.6	0.1	0.5	1.1

Table 3: Comparison and Effectiveness of Acupressure on Dysmenorrhea among Adolescent Girls in Experimental and Control Group

Level of Significance: p<0.05*=mild effective; p<0.01**=moderately effective; P<0.001***= more effective

The data analysis revealed that in experimental group the overall mean difference was 3.2 with SD 1.5 and 't' test value was 11.9 at the level of p<0.001***. Similarly in control group the overall mean difference was 0.1 with the SD 0.5 and 't' test value was 1.1. It showed that statistically significant difference in between experimental and control group. Hence the acupressure therapy was found to be effective in reducing dysmenorrhea among adolescent girls.

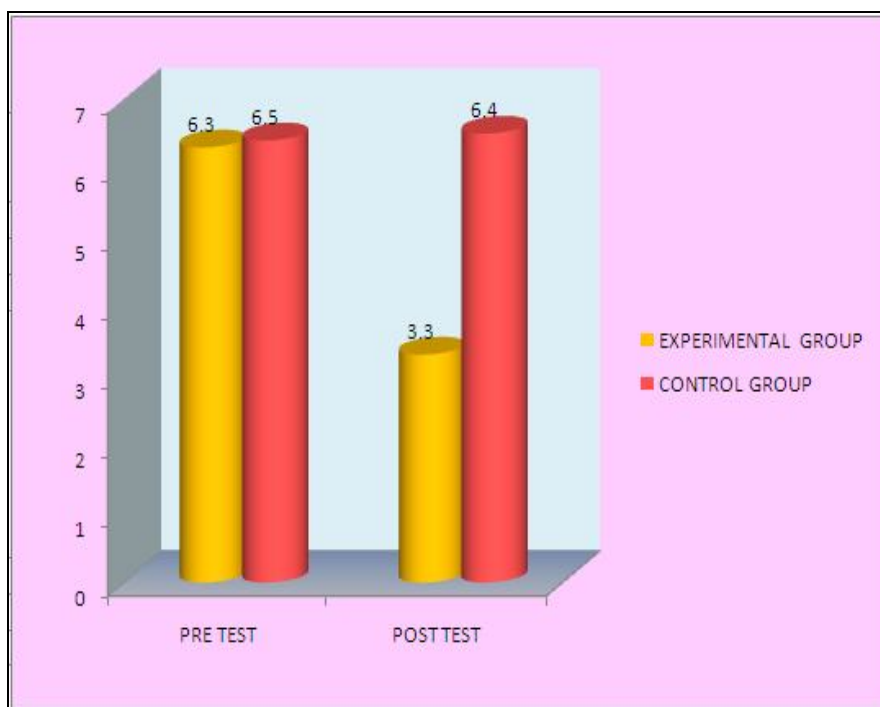


Figure 1: Comparison and effectiveness of acupressure on dysmenorrhea among adolescent girls in experimental and control group

In experimental group the overall mean difference was 3.2 with SD 1.5 and 't' test value was 11.9 at the level of $p < 0.001^{***}$. Similarly in control group the overall mean difference was 0.1 with the SD 0.5, 't' test value was 1.1. It showed that statistically significant difference in between experimental and control group. Hence the acupressure therapy was found to be effective in reducing dysmenorrhea among adolescent girls. The Chi Square test shows that there was no statistically significant association between post assessment levels of dysmenorrhea among adolescent girls with selected demographic variables.

5. Conclusion

Based on the analyzed data, it proved that acupressure therapy was effective in reducing dysmenorrhea among adolescent girls.

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