



**A STUDY TO ASSESS THE EFFECTIVENESS OF ACUPRESSURE ON MENSTRUAL PAIN PERCEPTION AMONG ADOLESCENT GIRLS WITH DYSMENORRHEA IN TEERTHANKER MAHAVEER GIRL'S HOSTEL AT MORADABAD, UP**

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**Abstract:** This study was conducted to assess the effectiveness of acupressure on menstrual pain perception among adolescent girls with dysmenorrhea in Teerthanker Mahaveer girl's hostel at Moradabad. The main aim of this study was to assess the effect of acupressure on menstrual pain perception among adolescent girls, living in the girl's hostel. A quantitative research approach was adopted and sample was from the adolescent's girls who are living in girl's hostel. Structured Andrea Mankoski pain scale was used to measure the level of pain perception. Collected data was analyzed using descriptive and inferential statistics. Level of pain perception was tabulated by mean and comparisons in pain perception were known using standard deviation 'Unpaired T' test. Association was measured by chi-square test. The study revealed that, during pre test, 5% adolescent girls had mild pain, 88.33% had moderate pain and 6.67% had severe pain during menstrual pain perception. Contrary to this, post test revealed 3.34% adolescent girl had no pain, 43.33% had mild pain and 53.33% had moderate pain during menstrual pain perception. The difference in pain perception revealed that experimental group have mean score of 3.47 with standard deviation of 2.21, while control group have mean score of 4.27 and standard deviation of 1.08.

**Key Words:** Effectiveness, Acupressure, Adolescent girls, Dysmenorrhea.

**Introduction:** Adolescence is a time of moving from the immaturity of childhood into the maturity of adulthood. Many symptoms are found in adolescent girls during dysmenorrhea

and responsible for financial burdens. Many chemical remedies were used to decrease the pain perception and reduce the discomfort pain. In the reproductive age, menstrual pain was a very common problem in women's and adolescent girls. Chinese traditional philosophy holds certain channels in the human body called Qi in which flow of energy is regulated and disease was the results of the unbalanced flow of Qi. Acupressure was an ancient healing art that used fingers to press key point on the skin

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surface to stimulate body's natural self-curative abilities. When these body points are pressed, those promoting the circulation of blood and released muscular tension and the body's life force to aid healing. In the relief of stress-related ailments acupressure therapies were effective, and as an ideal for using self treatment techniques and boosting the immune system for improving health care. To increase circulation, release tension, reduces pain, and develops vibrant health acupressure is helpful. During menstruation hormonal changes it can cause increased menstrual blood flow and severe pain in the body. A case for short-term school absence in school for adolescent girls was Dysmenorrhea, In USA a study was conducted is shown that girls were suffering from severe menstrual flow is 58%, and smoking and depression were some other risk factors of dysmenorrhea. Dysmenorrhea was also decreasing their quality of life in many adolescent girls and 67.2% in India adolescent girls were suffering from dysmenorrhea and 60% of adolescent girls were disrupted in their daily routines. Severity of dysmenorrhea is reduced by the acupressure and caused a decline in the immediately after the intervention during their first menstrual cycle. The objectives of the study are: To determine the effectiveness of acupressure on menstrual pain perceptions among adolescent girls with dysmenorrhea, and

To find the association between the level of menstrual pain perception of experimental group & a control group with selected demographic variables.

**Materials and Method:** The main aim of this study was to assess the effect of acupressure on menstrual pain perceptions among adolescent girls with dysmenorrhea. A quantitative research approach was adopted and Quasi-experimental: nonequivalent control group research design was used. The study population for the study was adolescent girls at Teerthanker Mahaveer girls hostel Moradabad. The sample was adolescent girls with dysmenorrhea and size were 60 adolescent girls with dysmenorrhea (30 experimental group, 30 control group). Demographic data and Andrea Mankoski pain scale were used to collect the data from the study population. The collected data were analyzed using descriptive and inferential statistic based on the research objectives and hypothesis. Level of pain perception scores was calculated using percentage and mean. The comparison was calculated by standard deviation and 'T' test value. Association between levels of knowledge with selected demographic variables determined by chi square test.

**Results:**

**Section 1: Demographic variables of selected adolescent girls with dysmenorrhea**

**Table 1:** Frequency and percentage distribution of adolescent girls with dysmenorrhea by their selected demographic variable

DEMOGRAPHIC VARIABLES		Experimental group		Control group	
		frequency	%	frequency	%
Age	<13yrs	0	0%	0	0%
	14-15yr	0	0%	0	0%
	16-17yr	9	30%	19	63.33%
	18yr	21	70%	11	36.67%
Age at menarche	<11yr	0	0%	0	0%
	11-12yr	3	10%	1	3.33%
	13-14yr	17	56.67%	21	70%
	>14yr	10	33.33%	8	26.67%
	Hindu	12	40%	6	20%

<b>Religion</b>	Muslim	7	23.33%	5	16.67%
	Sikh	5	16.67%	5	16.67%
	Other	6	20%	14	46.66%
<b>Types of family</b>	Nuclear family	19	63.33%	20	66.67%
	Joint family	11	36.67%	10	33.33%
<b>Family income</b>	<10,000/month	1	3.33%	0	0%
	10,001-15,000	6	20%	2	6.67%
	15,001-20,000	10	33.33%	8	26.67%
	>20,001	13	43.34%	20	66.66%
<b>Personal menstrual history</b>	Regular	6	20%	8	26.67%
	Prolonged menstrual flow	9	30%	11	36.66%
	Excessive bleeding	14	46.67%	11	36.67%
	Other irregularity	1	3.33%	0	0%
<b>Family history of dysmenorrhea</b>	Yes	13	43.33%	12	40%
	No	17	56.67%	18	60%
<b>Do you have any previous knowledge regarding treatment of dysmenorrhea</b>	Yes	7	23.33%	7	23.33%
	No	23	76.67%	23	76.67%
<b>Knowledge regarding acupressure</b>	Yes	3	10%	4	13.33%
	No	27	90%	26	86.67%

- **Age :** Majority of adolescent girls were 53.33% age group of 18yr.
- **Age at menarche:** Majority 63.33%, of adolescent girls belonged to age group between the 13-14yrs.
- **Religion:** Majorities i.e. 33.33% adolescent belonged to other religion.
- **Types of family:** Majority 65% of adolescent girl belongs to nuclear family.
- **Family income:** Majority 55% of adolescent girls family income were 20,001/month.
- **Personal menstrual history:** Majority 41.67% of adolescent girls had history of excessive bleeding.
- **Family history of dysmenorrhea:** Majority 58.33% of adolescent girls were not having family history of dysmenorrhea.
- **Knowledge regarding treatment of dysmenorrhea:** Majority 76.67% of adolescent girls were not having previous knowledge regarding treatment of dysmenorrhea.
- **Knowledge regarding acupressure:** Majority 88.33% of adolescent girls were not having knowledge regarding acupressure.

## Section 2: Effectiveness of acupressure on menstrual pain perception among adolescent girls with dysmenorrhea of experimental group .

**Table 2:** Level of Menstrual Pain Perception, Pre test and Post test of Experimental and Control Group among adolescent girls.

Level of pain perception	PRE TEST		POST TEST	
	Frequency	%	Frequency	%
No pain (0)	-	-	2	3.34 %
Mild pain (1-3)	3	5%	26	43.33%
Moderate (4-7)	53	88.33%	32	53.33%
Severe (8-10)	4	6.67%	-	-

The above table depicts that during pre test, 5% adolescent girls had mild pain, 88.33% had moderate pain and 6.67% had severe pain during menstrual pain perception. Contrary to this, post test revealed 3.34% adolescent girl had no pain, 43.33% had mild pain and 53.33%

had moderate pain during menstrual pain perception. It was thus inferred that acupressure had a significant effect on the level of menstrual pain perception among adolescent girls by reducing the level of pain in post test scores.

**Table3:** Mean, stander deviation, and t value of post test of experimental and control group.

GROUP	TEST	MEAN	SD	UNPAIRED 't' VALUE	P value
Experiment group	Post test	3.47	2.21	1.78	1.671
Control group	Post test	4.27	1.08		

\*Significant  $p < 0.0$

**Table 3** Reveals that experimental group and control group, the mean post test score 3.47 with standard deviation 2.21 was more less than the mean post test score 4.27 with a standard deviation of 1.08 at  $p < 0.05$  level. The calculated obtained unpaired 't' value was 1.78 was

significant at  $p < 0.05$  level. There is a significant difference between the post test of the experimental group and post test of the control group.

### Section 3: Association between acupressure and selected demographic variables.

**Table4:** Frequency Distribution and Chi Square Value of Demographic Variables.

VARIABLES	CHI-SQUARE	D.F.	T. VALUE	INFERENCE
Age	1.602	9	16.92	NS
Age at menarche	6.8906	9	16.92	NS
Religion	27.34	9	16.92	S
Types of family	2.1262	3	7.82	NS
Family income	2.689	9	16.92	NS
Personal menstrual history	1.9664	9	16.92	NS
Family history of dysmenorrhea	1.320	3	7.82	NS
Do you have any previous knowledge regarding treatment of dysmenorrhea	0.306	3	7.82	NS
Knowledge regarding acupressure	0.1134	3	7.82	NS

Key Notes: S\* = Significant, NS = Non Significant, Table value of  $\chi^2$  at 5% level

**Discussion:** The resulting study revealed that in this present study during pre test, 88.33% had moderate pain during menstrual pain perception. Contrary to this, post test revealed 53.33% adolescent girls had moderate pain during menstrual pain perception. That experimental group and control group, the mean post test score 3.47 with standard deviation 2.21 was less than the mean post test score 4.27 with a standard deviation of 1.08 at  $p < 0.005$  level. The calculated obtained unpaired 't' value was 1.78 was significant at  $p < 0.05$  level. The experimental post test mean is 3.47 and control mean post test is 2.21, which state that in the present study acupressure is effective in menstrual pain perception. It was thus inferred that acupressure had a significant effect on the level of menstrual pain perception among adolescent girls by reducing the level of pain in post test scores. Similar result found in the study conducted by **Jun. E.M, Chang. S, Kang, D.H, Kim. S**, "A quasi experimental study was conducted to assess the effectiveness of SP6 acupressure on menstrual pain perception and changes skin temperature among college students in Korea". 58 young college women with primary dysmenorrhea were as a sample. By using visual analogues scale data were collected. The sanyinjiao acupressure was given in experimental group for 20 minutes to the students with dysmenorrhea. The result found the statistically significant difference in the level of menstrual pain perception after the 30 minutes of the intervention. Two groups immediately after intervention ( $F=18.50$ ,  $p=0.000$ ) and up to two hours after intervention ( $F=8.04$ ,  $P=0.032$ ) post treatment.

**Conclusion:** The finding suggests that acupressure is an effective and safe form of therapy for adolescents with primary dysmenorrhea. Single acupoint pressure at saninjiao (SP6) is cost free and easy to learn. It can be integrated into clinical practice and health education in order to enhance the quality of life for adolescent with primary dysmenorrhea. We recommend its use for self-care of primary dysmenorrhea.

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