

# Effect of Acupressure on Physiological and Psychological Maladies Among Peri and Post Menopausal Women

Malathi.M<sup>1</sup>, Dr.P.Padmavathi<sup>2</sup>

<sup>1</sup>Ph.D Scholar, Sresakthimayeil Institute of Nursing & Research, Namakkal

<sup>2</sup>Guide, Dhanvantri College of Nursing, Namakkal

**Abstract:-** Menopause is an unavoidable physical condition in women's life. During menopausal periods women suffer from physical and mental stress, which can have a detrimental effect on quality of life and adverse clinical outcomes. These outcomes lead the women towards taking hormonal medications to reduce the symptoms. Since the hormonal therapy has very many complications, the use of complementary and alternative therapies also has increased to reduce menopausal maladies. Acupressure is believed to be one of the complementary therapies that can be used to promote physical and mental health among menopausal women.

## ➤ *Methods*

A quantitative, true experimental, pre test – post test control group design was used to find out the effectiveness of acupressure on menopausal maladies among menopausal women at Pallakkapalayam, Namakkal district. A total of 60 postmenopausal women with menopausal problems were randomly assigned to either the acupressure group (n = 30) and the control group (n = 30). The acupressure group received 15 minutes acupressure used twice a week for four weeks. The control group did not experience acupressure. Outcome measures were the physical and psychological components of menopausal problems as measured using the Menopausal Maladies Scoring Sheet (MMSS). Since the data were normally distributed, the parametric tests were performed to compare the experimental and control group, before and after acupressure interventions.

## ➤ *Results*

While comparing the experimental and control group after acupressure application, the “t” value 2.65 at 0.011 probability level reveals that there is significant difference in physiological symptoms in experimental (Mean: 35.93 (44.2%); SD: 15.27) and control group (Mean 47.27 (59.1%); SD: 17.81). “t” value 2.016 at 0.048 probability level reveals that there is significant difference in psychological symptoms between experimental (Mean 17.87 (44.7%); SD: 7.41) and control group (Mean 21.57 (53.85%); SD: 6.79).

## ➤ *Conclusion*

The findings of this study show that the acupressure treatment that was given twice a week for four weeks was able to significantly reduce the physical and psychological

maladies of menopause. These positive findings suggest that acupressure may play a role in improving physical and mental well-being among women in the menopausal age group and as treatment time increases efficiency will also be increased. Promoting good physical and mental health among menopausal women will improve the quality of life, and reduce the negative effects associated with menopause problems.

**Keywords:-** Acupressure, Depression, Anxiety, Stress, And General Physical And Psychological Distress (Maladies), Peri And Post Menopausal Women.

## I. INTRODUCTION

Menopause is a natural phenomenon that occurs when women approach their middle age. It is characterized by decreased ovarian function and cessation of menstruation. The frequency of menopausal symptoms was found to be 87.7%. Most of the study subjects had anxiety (80%), followed by physical and mental fatigue (71.5%), sleep disorders (61.2%), irritability (60.7%), joint and muscle discomfort (56%) and heart problems (54%). The oldest sign of menopause, i.e., hot flashes were reported at 36.7%.

Depression, anxiety and general physical stress related to the skin, heart, limb, muscles and uro-genital tract are common problems encountered among peri and post menopausal women. Some women experience symptoms of discomfort such as hot flashes and dryness of the vagina. Since menopause is an important portion in women's life, measures to increase the physical and psychological comforts among those women are essential to increase in life expectancy and quality of life.

## ➤ *Need for the study*

During menopause, estrogen level decreases. HRT (also known as hormone replacement therapy or estrogen & progestin replacement therapy) is the most common treatment for menopausal symptoms. But HRT may increase the risk of endometrial cancer, blood clots, stroke, and breast cancer.

Nowadays, complementary and alternative medicine (CAM) serves as the best individual treatment option for treating a variety of ailments and improving quality of life with due consideration of economic factors. Acupressure, one of the most well-known CAMs, found in ancient China based

on the principle of opening acupoints on all meridians that correct the imbalance between Qi. Qi is an important energy that flows through the body to maintain human health. Acupressure helps to release energy flow to the meridians and strengthen healthy Qi in our body.

Based on the reported studies, acupressure therapy is one of the most effective nursing interventions in clinical settings, and is considered as most comprehensive clinical nursing intervention. Acupressure medicine is well integrated with nursing as it is non-invasive and has benefits such as cost-effectiveness, low cost, no need for specialized equipment, and easy learning of patients and their accompanying people.

Acupressure has proven to be a perfect medical toolbox to rejuvenate women from various problems of menstruation and pregnancy. Increased life expectancy and improved quality of life among middle-aged women with an affordable, feasible, non-invasive intervention need to be adopted to improve the physical and mental health. In this regard acupressure is a concomitant treatment that effectively relieves various ailments among variety of patients. The researcher would therefore like to evaluate the effectiveness of acupressure among women in the perimenopausal and postmenopausal stages.

## II. REVIEW OF LITERATURE

Review of literature for the current study was divided under the following headings.

- Studies related to prevalence of menopausal problems and attitude of women towards the problems
- Studies related to the effect of acupressure on physiological and psychological problems in Menopausal women and elderly population.

Wang, L., Zhang, R., et al (2021) conducted a cross-sectional study to investigate the severity and risk of menopause symptoms in middle-aged women in China's Gansu province. In this study, a total of 7319 women (aged 40-55) who underwent a medical examination in Gansu Province in China were registered. A total of 7319 participants were included in the current study, among them, 3606 (49.27%) had moderate or severe signs of menopause. Compared to premenstrual women, perimenopausal women and postmenopausal women have a higher mKMI score. The results of the study showed that aging, high BMI, single status, length of menstruation, pregnancy number, lactation period, peri- or postmenopausal status, and menopause hormone treatment were positively associated with menopause symptoms. over time, while high family income, educational and physical activity, and a history of gynecology, asthma or chronic illness were negatively correlated with points.

Soheir M. El kosery and Adel F. EL-Bigawy (2012) conducted research to evaluate the effect of Acupressure on relieving postmenopausal Hot Flashes. Thirty postmenopausal women complained of hot flashes for at least 3 months before starting the study, taking part in the study.

They were treated with acupressure for 10 acupoints for 6 weeks, 3 sessions / week, each session lasting 20 minutes. Testing: Hot light frequency / 24 hours and intensity. Also, the level of (FSH) was tested before and after 6 weeks of treatment. The results obtained showed a statistically significant decrease ( $P < 0.0001$ ) at room temperature / 24 hours, intensity and FSH level with an improvement rate of 52.99%, 52.66% and 16.06% respectively between pre- and post-treatment rates. It can be concluded that acupressure can be used as one of the safest, painless and effective non-pharmacologic methods to relieve post-menstrual fever.

Ahmadinezhad, M., Kargar, M., Vizesfar, F., &Hadianfard, M. J. (2017), conducted a Randomized Controlled Trial to compare the effect of Acupressure with Pilates-based Exercises on Sleep Quality of Postmenopausal Women. 108 women aged 40-60 randomly assigned to one control and two intervention groups using the block modality method (three groups of 36 each). Patients in the Pilates exercise group participated in a three-hour 1-week weekly exercise program for 6 consecutive weeks. Participants in the acupressure group received acupressure interventions three times a week for 6 weeks. Sleep quality of all participants was assessed and recorded using the Pittsburgh Sleep Quality Index (PSQI) once before and once after intervention. The results did not show a significant difference between the three groups in total sleep quality values after the intervention. Intra-group comparisons revealed that changes in total values were significant in both intervention groups ( $P < 0.001$ ) but not in the control group ( $P = 0.76$ ). Pilates-based exercise and acupressure can effectively improve women's sleep quality. Both strategies can be used as other effective and complementary approaches to improving sleep quality during the postmenopausal period.

### ➤ *Statement of problem*

A quantitative, true experimental study, to assess the effect of acupressure on physiological and psychological maladies among peri and post menopausal women in selected community, at Namakkal District

### ➤ *Objectives*

- To assess the level of menopausal maladies among menopausal women before acupressure
- To find out the effectiveness of acupressure on menopausal maladies among menopausal women
- To find out the association between post test level of menopausal maladies and the selected demographic variables of menopausal women

## III. METHODOLOGY

A community based true experimental pre test – post test control group design was conducted at the rural panchayat Pallkkapalayam, Namakkal district, Tamilnadu, India. **Sample selection:** The sample size calculated in the current study was 70. A random sampling method was used to select study participants. 35 samples were randomly assigned to the experimental group and another 35 samples were assigned to the control group. After attrition 30 samples in each group

completed the trial. Both women in perimenopausal stage and post menopausal stage were equally included in experimental and control group.

➤ *Selection and Development of Tool:*

A pretested semi-structured schedule was used for interviewing the study subjects to collect information on socio-demographic profile, relevant to menstrual history, and personal history. Menopausal Maladies Scoring Sheet (MMSS) consists of two main components as Physical Score and Psychological Score which was used to assess the level of menopausal maladies. Physical Score component consist of 20 items in 5 subscales, where common menopausal symptoms are reported such as Skin, Heart, Sleep, Joint & muscles and uro-genital tract. Subscale Skin component

consists of 3 items, Heart component consists of 3 items, Sleep component consists of 3 items, Joint & muscles component consists of 6 items and uro-genital tract component consists of 5 items. Psychological Score component consists 10 items with 4 sub scales such as “DASMc” D – Depression, A- Anxiety, S – Stress and Mc – Memory and concentration. Depending on the severity, each symptom is scored from 0 to 4 on Likert's scale. The score for physiological component is 0 – 80 and psychological component is 0 – 40.

Based on the total score, the levels of menopausal maladies will be graded in six categories. They are “No symptoms”, “Mild”, “Moderate” “severe” and very severe and worse symptoms.

<i>Level of menopausal maladies</i>	<i>Severity of symptoms</i>	<i>Actual Scores</i>
<b>No symptoms</b>	Very few mild symptoms	0 - 20
<b>Very Mild</b>	Only slightly apparent	21 - 40
<b>Moderate</b>	Aware of symptom, but it doesn't affect daily activity at all	41 - 60
<b>Severe</b>	Continuously bothered by symptoms	61 - 80
<b>Very severe</b>	Interferes with daily activity but able to perform the work if try	81 - 100
<b>Worse</b>	Interferes with daily activity but unable to perform the work even if try	100 - 120

➤ *Data Collection procedure:*

The pilot study was performed at 10% of the sample size to test the research tool clearly, and to estimate time and financial supports required to complete the trial. The reliability of the instrument was assessed by measuring its internal consistency and showed that it was high: Cronbach's alpha coefficients for physical and psychological symptoms were 0.95 and 0.97 respectively. The main study was conducted in the same area after obtaining consent from the participants. Baseline data were obtained from participants in

two groups by interviewing using a tool designed, by the researcher. Then the pre test was performed on both the experimental and control group using the Menopausal Malady Scoring Sheet to find the frequency and severity of menopausal symptoms. Then for the samples in experimental group acupressure application was applied twice a week for 4 weeks. Samples in the control group did not receive acupressure treatment. Individual interviews were conducted for each trial participant in experimental and control groups to collect post-intervention data using the same tool.

#### IV. RESULTS

Table – 1: Compares the level of physiological and psychological menopausal maladies between experimental and control group before Acupressure

S. No	Areas	Max. score	Experimental Group - Pretest score			Control Group - Pre test score			Difference in Mean (%)	DF	‘t’ Value	P Value
			Mean	SD	Mean (%)	Mean	SD	Mean (%)				
1.	Physiological	80	46.47	16.45	58.1	47.73	16.97	59.7	1.6	58	0.29	0.77
2.	Psychological	40	19.33	7.66	48.3	20.00	7.37	50	1.7	58	0.34	0.73

This proves that there is no significant difference between both physical and psychological symptoms between the participants in the experimental and control group.

Table 2 - Compares the level of menopausal physiological and psychological maladies among menopausal women before and after Acupressure in experimental group

S. No	Areas	Max. scores	Experimental Group - Pretest score			Experimental Group - Post test score			Difference in Mean (%)	DF	‘t’ Value	P Value
			Mean	SD	Mean (%)	Mean	SD	Mean (%)				
1.	Physiological	80	46.47	16.45	58.1	35.93	15.27	44.9	13.2	29	14.85	0.0001
2.	Psychological	40	19.33	7.66	48.3	17.87	7.41	44.7	3.6	29	7.26	0.0001

This infers that there is significant reduction in both physiological and psychological symptoms among samples participated in experimental group.

Table 3 - Compares the level of physiological and psychological menopausal maladies among menopausal women before and after Acupressure in control group

S. No	Areas	Max. scores	Control Group - Pretest score			Control Group – Post test score			Difference in Mean (%)	DF	't' Value	P Value
			Mean	SD	Mean (%)	Mean	SD	Mean (%)				
1.	Physiological	80	47.73	16.97	59.7	47.27	17.81	59.1	0.6	29	0.66	0.513
2.	Psychological	40	20.00	7.37	50	21.57	6.79	53.85	3.85	29	1.82	0.080

This infers that there is no significant change in the level of both physiological and psychological symptoms among samples participated in control group.

Table 4 - Compares the level of physiological and psychological menopausal maladies between experimental and control group after Acupressure

S. No	Areas	Max. scores	Experimental Group – Post test score			Control Group – Post test score			Difference in Mean (%)	DF	't' Value	P Value
			Mean	SD	Mean (%)	Mean	SD	Mean (%)				
1.	Physiological	80	35.93	15.27	44.2	47.27	17.81	59.1	14.9	58	2.65	0.011
2.	Psychological	40	17.87	7.41	44.7	21.57	6.79	53.85	9.15	58	2.016	0.048

This proves that there is a significant difference between both physical and psychological symptoms between the participants in the experimental and control group. And the experimental group had a greater reduction in both physical and psychological symptoms than the control group.

Table 5 - Association between post test level of menopausal maladies and the selected demographic variables of menopausal women

S. No	Variables	Experimental group				Control group			
		df	Level of Significance	$\chi^2$	P value	Df	Level of Significance	$\chi^2$	P value
1.	Age (in year)	15	0.05	5.009	7.26	15	0.05	11.33*	7.26
2.	Menopausal Status	5	0.05	1.88*	1.145	5	0.05	0.24	1.145
3.	Religion	10	0.05	11.29*	3.94	10	0.05	2.48	3.94
4.	Marital status	10	0.05	0	3.94	10	0.05	25.03*	3.94
5.	Educational status	15	0.05	9.92*	7.26	15	0.05	1.2	7.26
6.	Occupational status	15	0.05	9.92*	7.26	15	0.05	1.2	7.26
7.	House hold Income/ Month	15	0.05	43.15*	7.26	15	0.05	2.34	7.26
8.	Personal habit (Betel Leaf chewing)	10	0.05	8.84*	3.94	10	0.05	0.12	3.94
9.	Body Mass Index (BMI)	10	0.05	15.27*	3.94	10	0.05	5.11*	3.94
10.	Exercise	10	0.05	0.17	3.94	10	0.05	0	3.94
11.	Age at menarche	15	0.05	0.17	7.26	15	0.05	3.69	7.26
12.	Number of live births	10	0.05	0	3.94	10	0.05	12.04*	3.94
13.	Family type	10	0.05	15.069*	3.94	10	0.05	1.71	3.94

\* - significant

Table 5 - presents substantive summary of chi-square analysis and delivers the association of selected variables of subjects with their post test level of menopausal maladies.

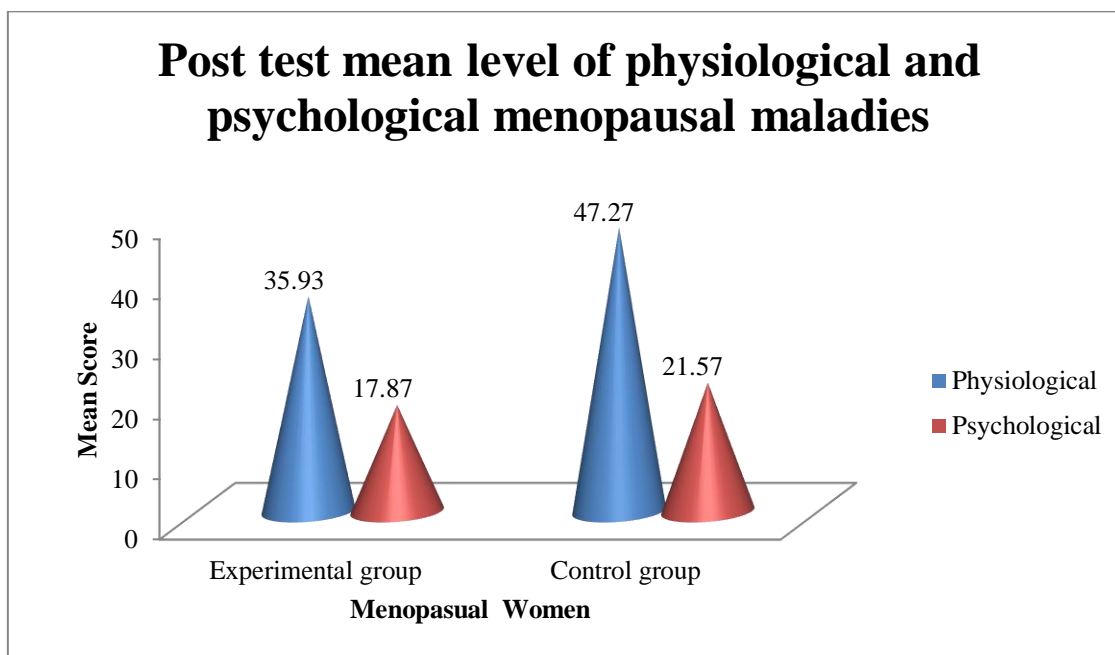


Fig.1: Post test mean level of physiological and psychological menopausal maladies

## V. DISCUSSION

Menopause is the end of ovarian function and the menstrual flow that occurs with additional physical and mental health problems. This study was performed to determine the effect of acupressure on menopause disorders among peri and postmenopausal women.

The results of this study were consistent with Juue Zhou et al. (2011) who compared the effect of acupuncture with auricular acupressure versus hormone replacement therapy in relieving hot flushes of bilaterally ovariectomized Chinese women. They found that both the severity and frequency of hot flashes in both groups were relieved significantly after treatment when compared with pre-treatment values ( $P < 0.05$ ) and there was no significant difference in the severity of hot flashes between them after treatment ( $P > 0.05$ ). Also the level of FSH decreased significantly in both groups ( $P < 0.05$ ). They concluded that acupuncture and auricular acupressure can be used as alternative treatments to relieve menopausal hot flashes for those bilaterally ovariectomized women who are unwilling to receive hormone replacement therapy.

Venzke et al., (2010)18 studied whether acupuncture would relieve the vasomotor symptoms in post-menopausal women. All subjects were in non-surgical menopause and medically stable. They were assigned to receive 12 weeks of treatment with either Chinese Traditional Medicine acupuncture (TCM) ( $n=27$ ) or shallow needle (sham) acupuncture ( $n=24$ ). Both groups of women showed statistically significant improvement on all study parameters (hot flashes, depression and anxiety). This study showed that both shallow needling and TCM acupuncture were effective treatments of post-menopausal vasomotor symptoms.

Though the intervention in the present study has showed significant reduction in physiological and psychological symptoms, the researcher accepts that there will be more significant effect could be observed while the duration of the intervention is increased.

## VI. CONCLUSION

From the results obtained, the selected acupressure protocol appears to be an effective means of alleviating both physical and psychological symptoms among peri and postmenopausal women. Therefore, it can be used as an effective, safe, painless and non-pharmacological way to treat these conditions in the menopausal period.

## RECOMONDATION

- The same study could be performed with larger sample size
- This type of study could be performed in urban and hospital residence
- Increase the frequency of acupressure attempts could be tested
- Simultaneous activation of two or more acupoints could be assessed for its effect

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