

Effect of Yoga Therapy on Psychological Symptoms among Menopausal Women residing in selected villages of Namakkal District, Tamil Nadu, India

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ABSTRACT

“Women now live a third of their lives after menopause”. Menopause is a part of a women’s natural ageing process. Objectives: To assess the effectiveness of Yoga therapy on psychological symptoms among menopausal women. Design: A True experimental research where pretest and post-test with control group design. Sample: Menopausal women with psychological symptoms in Namakkal (DT). Sampling Technique: Multistage sampling technique. Data collection: MRS (Menopause Rating Scale) was used to assess the level of psychological symptoms. Results: The post-test mean score on yoga therapy was 82.5% in experimental group whereas in control group 36.25% showing the difference of 46.25%. Paired ‘t’ test score for psychological symptoms was 6.726 in experimental group showing the significant effectiveness of yoga therapy. Unpaired ‘t’ test score was 10.027 for yoga therapy. Conclusion: There was no significant association between post-test psychological symptoms scores in both groups. It concluded that Yoga therapy was effective in reducing the psychological symptoms among menopausal women.

Keywords: effective, menopausal women, psychological symptoms, yoga therapy

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INTRODUCTION

Menopause is the physiological cessation of menstrual cycles associated with advancing age in any women. It occurs as the ovaries stop producing estrogen causing the reproductive system to gradually shut down. Women may go through a lot of anxiety, tension, worry, emotional suppression, and a lot of physical and mental stress before and during menopause.

Menopause is often accompanied by Psychological symptoms such as irritability, anxiety, difficulty sleeping and depression,

and somatic symptoms such as decreased libido, fatigue, and bodyache. Many women are hopeful that non- hormonal alternative solutions can be found.

According to International Journal of Collaborative Research on Internal Medicine and Public Health, 2010 – a community-based survey from rural Sindh, Pakistan was carried to assess the severity of menopause symptoms and quality of life at different status of menopause showed that the there is a significant lowered score in physical, somatic and psychological domains for post

menopausal women as compared to pre/perimenopausal group. ($P = < 0.001$). Chattha R et al. (2014) conducted a study on the effect of yoga on the climacteric symptoms, perceived stress, and personality in perimenopausal women [1]. One hundred twenty participants (ages 40–55 years) were randomly divided into two study arms, i.e., yoga and control. The yoga group practiced an integrated approach to yoga therapy whereas the control group practiced a set of simple physical exercises under supervision of trained teachers for 8 weeks (1 h daily, 5 days per week). The assessments were made by Greene Climacteric Scale, Perceived Stress Scale, and Eysenck's Personality Inventory before and after the intervention. Of the three factors of the Greene Climacteric Scale, the Mann-Whitney test showed a significant difference between groups ($P < 0.05$) in the vasomotor symptoms, a marginally significant difference ($P = 0.06$) in psychological factors.

Unni J, Third Consensus Meeting of Indian Menopause Society (2008) suggested that utilization of yoga and meditation may be globally increased. These are keeping in mind the fact that these recommendations can be universally followed by all Indian women rich or poor, rural or urban to improve their global health [2].

Mary R Taylor (2008) conducted a pilot study of the effect of 10 weeks of Yoga programme on 11 midlife women's menopausal symptoms and suggestions for improving the study protocol [3]. The women reported feeling relaxed and physically better after yoga class. Many viewed Yoga as a skill they could incorporate into daily life to reduce stress and manage their menopause symptoms.

Being it is a common problem, researcher showed much interest in treating the

menopausal symptoms. Even in literature yoga was to be safe and effective to treat the menopausal symptoms. So, Researcher would like to undertake this project.

OBJECTIVES

- To assess the level of psychological symptoms among experimental and control group of menopausal women before and after Yoga therapy.
- To assess the effectiveness of Yoga therapy on level of psychological symptoms among experimental and control group of menopausal women.
- To find out the association between post-test score on level of psychological symptoms among menopausal women in experimental and control group with their demographic variables.

HYPOTHESIS

- **H₁:** There was a significant level of psychological symptoms among experimental and control group of menopausal women before and after Yoga Therapy.
- **H₂:** There was a significant effectiveness of Yoga therapy on psychological symptoms among experimental group than control group of menopausal women.
- **H₃:** There was a significant association between post-test score on level of psychological symptoms among menopausal women in experimental and control group with their demographic variables.

RESEARCH METHODOLOGY

Research Approach and Design

The research approach and design selected for the present study was Evaluative research approach with True experimental research where pretest and post-test with control group design.

Setting

The setting for study was Raman Nagar and Sathya Nagar, Namakkal (DT).

Sample and Sample Size

The samples for the present study were menopausal women residing in Raman Nagar and Sathya Nagar, Namakkal (DT), who fulfill the sampling criteria. The sample size was 40 menopausal women, out of which 20 were experimental group and 20 were control group [4].

Sampling Technique

“Multistage sampling technique” was used to select the sample.

Inclusion Criteria

Menopausal women,

- Age group between 45–60 years
- Who were in normal physiological process
- With menopausal symptoms.
- Who were scored more than 22 in MRS.
- Who were present during the time of data collection?
- Who gave consent to participate in this study
- Who were able to understand and speak Tamil

Description of the Tool

Section A: Demographic variables

Section B: MRS (Menopause Rating Scale) to identify the level of psychological symptoms among menopausal women.

Data Collection Procedure

- Pretest was conducted by using MRS (Menopause Rating Scale) to assess the level of psychological symptoms
- Implementing the yoga therapy (Duration of 40 minutes once in a day for 2 weeks) to experimental group
- Post-test was conducted with same pretest tool after 2 weeks.

Validity and Reliability

- The content validity of the demographic variables and MRS (Menopause Rating Scale) was validated in consultation with guide and field of experts. The tool was modified according to the suggestions and recommendations of the experts
- Split Half method (Cronbach's Alpha) was used to find out the reliability of the MRS (Menopause Rating Scale). ($r^1 = 0.82$)

Plan for Data Analysis

- Descriptive Statistics: Frequency and Percentage. Mean and Standard Deviation
- Inferential Statistics: Mean and Standard Deviation, ‘t’ test and Chi-square test.

In pretest and post-test scores on level of psychological symptoms among menopausal women depicts that in experimental group, in pretest majority 17 (85%) of them had severe symptoms and 3 (15%) of menopausal women had very severe symptoms whereas in post-test 11 (55%) of them had moderate symptoms and 9 (45%) of them had mild symptoms, whereas in control group, in pretest majority 12 (60%) of them had very severe symptoms and 8(40%) of menopausal women had severe symptoms whereas in post-test 14 (70%) of them had very severe symptoms and 6 (30%) of them had severe symptoms [5].

Prabhnoor Kaur and Sandeep Kaur (2014), reported that there was a significant improvement in all the parameters of climacterium (Psychological, vasomotor and somatic) except the sexual component within both the groups and moderate evidence for short-term effects on psychological symptoms (16.73 ± 2.243 , 6.10 ± 1.373 at a Level of significance $P = 0.0000$) [6]. Conclusion: This systematic review found moderate evidence for short term effectiveness of yoga for psychological symptoms in menopausal women.

RESULTS

With regard to occupation, majority 6 (30%) and 6 (30%) were sedentary workers, 8 (40%) and 10 (50%) were attained menarche at the age of 13 years, 14 (70%) and 12 (60%) were hindus, 15 (75%) and 14 (70%) of them had mixed diets, 8 (40%) and 9 (45%) of them had

no bad habits, 9 (45 %) and 9 (45%) had a cessation of menstruation for <5 years, 10 (50%) and 11 (55%) were in joint family, 19 (95%) and 19 (95%) of them were not used any home remedies for menopausal symptoms in both the experimental group and control group respectively(table 1).

Table 1. Frequency and percentage distribution of samples according to their demographic variables.

Demographic Variables	Experimental group (N ₁ =20)		Control group (N ₂ =20)	
	Frequency	Percentage	Frequency	Percentage
Age in Years				
a. 45–48	6	30	5	25
b. 49–52	5	25	7	35
c. 53–56	5	25	4	20
d. 57–60	4	20	4	20
Socioeconomic status				
a. Rs.1000–Rs. 2000	2	10	5	25
b. Rs.2001–Rs. 3000	2	10	4	20
c. Rs.3001–Rs. 4000	7	35	4	20
d. Rs.4001and>above	9	45	6	30
Education				
a. No formal education	5	25	5	25
b. Primary education	7	35	8	40
c. Secondary education	7	35	6	30
d. Higher secondary education	1	5	1	5
e. Graduate	-	-	-	-
Occupation				
a. Housewife	6	30	3	15
b. Sedentary workers	6	30	6	30
c. Moderate workers	5	25	7	35
d. Heavy workers	3	15	4	20
Age at menarche				
a. Less than 12 Years	1	5	3	15
b. 13 Years	8	40	10	50
c. 14 Years	8	40	5	25
d. Above 14 years	3	15	2	10
Religion				
a. Hindu	14	70	12	60
b. Muslim	4	20	5	25
c. Christians	2	10	3	15
d. Others	-	-	-	-
Dietary pattern				
a. Vegetarian	5	25	6	30
b. Mixed diets	15	75	14	70
Types of habits				
a. Tobacco chewing	4	20	5	25
b. Betal nut chewing	8	40	6	30
c. Smoking	-	-	-	-
d. None	8	40	9	45

Period of cessation of menstruation				
a. < 5 years	9	45	9	45
b. 6–10 years	7	35	8	40
c. 11–15 years	4	20	3	15
Type of family				
a. Joint family	10	50	11	55
b. Nuclear family	10	50	9	45
c. Extended family	-	-	-	-
Source of information				
a. Neighbours	8	40	9	45
b. Relations	9	45	7	35
c. Mass media	3	15	3	15
d. Health professionals	-	-	1	5
Use of home remedies for symptoms				
a. Yes	1	5	1	5
b. No	19	95	19	95

Table 2. Frequency and percentage distribution of post-test scores of psychological symptoms among menopausal women in experimental group and control group after yoga therapy.

Level of psychological symptoms	Experimental group (N ₁ = 20)				Control group (N ₂ = 20)			
	Pretest score		Post-test score		Pretest score		Post-test score	
	Frequency (N)	Percentage (%)	Frequency (N)	Percentage (%)	Frequency (N)	Percentage (%)	Frequency (N)	Percentage (%)
No. symptoms	-	-	-	-	-	-	-	-
Mild	-	-	9	45	-	-	-	-
Moderate	-	-	11	55	-	-	-	-
Severe	17	85	-	-	8	40	6	30
Very sever	3	15	-	-	12	60	14	70

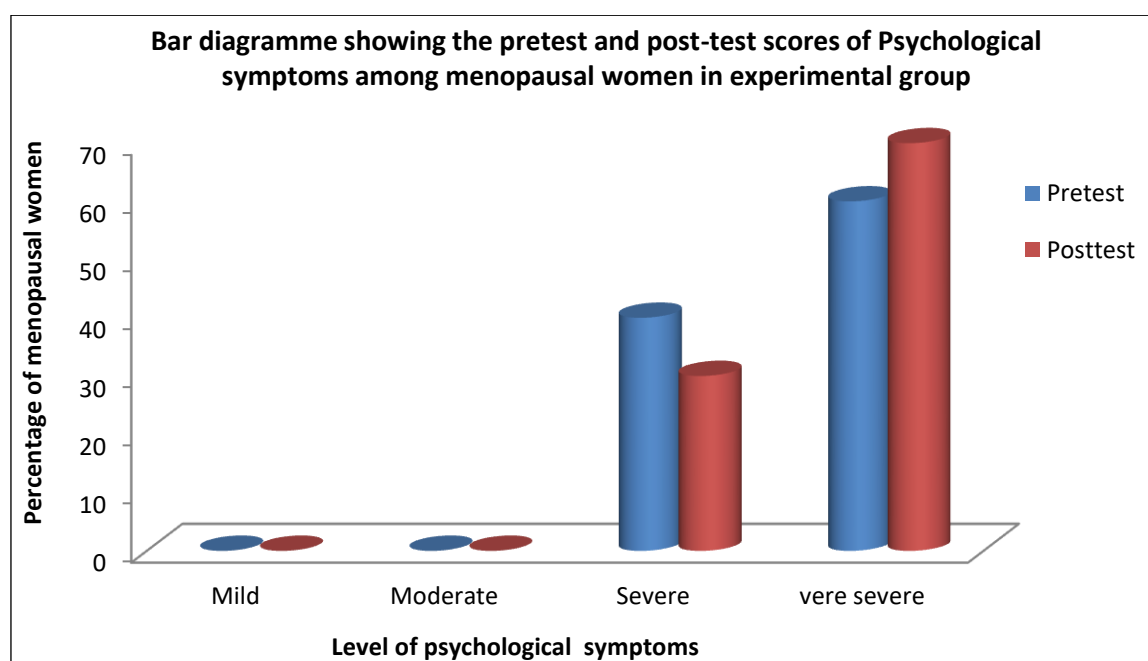


Fig.1. The pretest and post-test of Psychological symptoms among menopausal women in experimental group.

“Prevalence of Menopausal Symptoms Among Women (Menopausal For < 5 Years) In A Rural Area in Kottayam, Kerala, India”, [7]. The most frequently occurring psychological symptoms among women were “Feeling of

Fatigue/Lack of Energy” 49.7%, and “easily get irritated” 41.1%. Fatigue (chi square value for trend =911.4, $p= 0.0007$), “easily get irritated” (chi square value for trend=8.38, $p=0.004$) (Fig 1, 2).

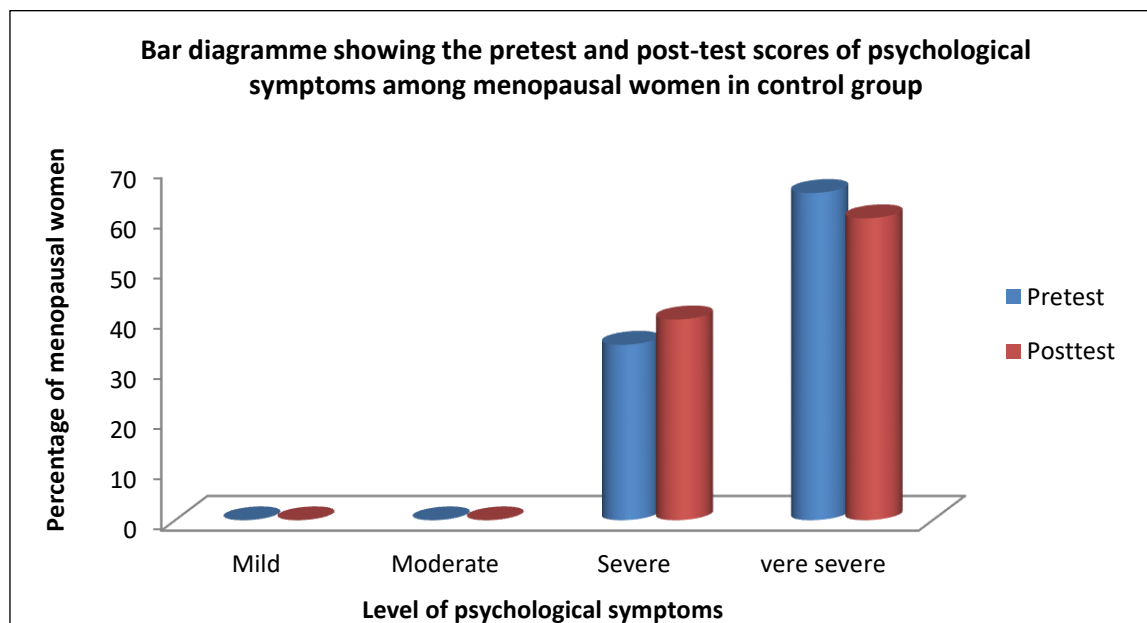


Fig. 2. The pretest and post-test of Psychological symptoms among menopausal women in control group.

Table 3. Mean and SD score on yoga therapy on psychological symptoms among menopausal women.

S. N.	Psychological Symptoms	Max. Scores	Post-test Score						Difference in Mean (%)
			Experimental Group			Control Group			
			Mean	SD	Mean (%)	Mean	SD	Mean (%)	
1.	Yoga therapy	16	13.15	1.989	82.5	5.8	2.608	36.25	46.25

Tests were considered significant when the 'p' value was <0.05.

Results: Mean age of 320 women participated in the study were 48.96. The frequently occurring symptoms were “Feeling of Fatigue/Lack of Energy” 49.7% (95% CI: 44.1-55.6), “easily get irritated” 41.1% (35.7-46.4) (Table 2). Hot flashes 40.9% (95%CI: 35.3-46.6), muscle

or joint pain 35.9 % (30.6-41.3), Night sweats is 32.8 % (95% CI: 27.5-38.1).Among psychological symptoms, 56.9% among postmenopausal women and 42.5% among pre-menopausal women complained of “Feeling of Fatigue/Lack of Energy” [7] (Table 3).

Table 4. Paired 't' values of pretest and post-test scores of psychological symptoms of experimental group and control group after yoga therapy.

S.N.	Menopausal Symptoms	Paired 't' Value			
		Experimental Group	Level of Significant	Control Group	Level of Significant
1	Psychological symptoms	6.726	Significant	0.117	Not Significant

In Table 4, Df – 19 (n-1) Table Value = 2.093 ($P < 0.05$ Significant)

Table 5. Unpaired 't' test value of post-test scores of level of psychological symptoms among experimental group and control group of menopausal women after yoga therapy.

S. N.	Level of menopausal symptoms	Unpaired 't' value	Level of significant
1.	Psychological symptoms	10.027	$P < 0.05$ Significant

$df = 38$, Table Value = 2.021, Significant at $P < 0.05$

Table 4 explains that the Paired 't' test psychological symptoms score was 6.726 in experimental group and 0.117 in control group. It was significantly high when compared to table value (2.093) and shows that yoga therapy was effective in reducing the psychological symptoms among menopausal women in experimental group than control group.

In Table 5, Unpaired 't' test to analyze the effectiveness between post-test scores of experimental group and control group on level of psychological symptoms and it shows that high significant difference and the score was 10.027. It was high when compared to table value (2.021). It revealed that the yoga therapy was effective in reducing the psychological symptoms among menopausal women.

DISCUSSION

Highest percentage (30%) of women were in the age group of 45–48 years in experimental group whereas 35% of women in control group were in the age group of 49–53 years, 30% of them were sedentary workers in experimental group and 35% of them were moderate workers in control group [8]. In both group, the menopausal women attained menarche at the age of 13 years (50%). In both group, the menopausal women were Hindus (70% and 60%) respectively. In both group, the period of cessation of menstruation of menopausal women were less than 5 years (40%). Most of the menopausal women in both the groups were not used any home remedies for menopause symptoms (95% and 95%) respectively. The study findings reveal that the post-test scores on psychological symptoms after Yoga therapy in experimental group shows that

55% of the menopausal women had moderate symptoms and 45% of menopausal women had mild psychological symptoms and in control group, 70% of the menopausal women had very severe symptoms and 30% of menopausal women had severe vasomotor symptoms [9]. Paired 't' test scores on level of psychological symptoms among experimental group of menopausal women after yoga therapy shows highly significant difference. Unpaired 't' test score on level of psychological symptoms shows that high significant difference and it revealed that the yoga therapy was effective in reducing the psychological symptoms among menopausal women. There was no significant association between post-test level of psychological symptoms scores when compared to demographic variables in both experimental and control group [10].

NURSING IMPLICATION

Nursing Education

By mass health education and through innovative measures, Nurse Educators can encourage nurses and midwives to educate regarding the practices of yoga and exercises among menopausal women.

Nursing Services

The proper information regarding menopausal symptoms must be implicated in clinical areas to improve the knowledge level.

Nursing Administration

Nurse administer can support the researcher to conduct the research on role of nurse in prevention and treatment of menopause symptoms among menopausal women.

Nursing Research

- The study may be issued for further reference.
- Further largescale study can be done in different settings.

Recommendations

- The replication of the present study can be conducted with large samples.
- A comparative study can be conducted among urban and rural population.
- A similar study can be conducted by adopting other alternative therapies for menopausal women.

CONCLUSION

- Prior to implementation of yoga therapy, menopausal women had severe and very severe psychological symptoms. The effectiveness was evaluated by post-test scores; The mean score on level of psychological symptoms was reduced from 82.5 to 36.25 after yoga therapy with the difference in mean % (46.25%). The study results shows that menopausal women showed highly significant reduction in psychological symptoms ($P < 0.05$).
- No significant association was found between post-test psychological symptoms scores and their demographic variables.

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