

Original Research Article

Effectiveness of deep breathing and walking exercise in reducing menopausal symptoms among women at Karadivavi, India

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ABSTRACT

Background: Menopause has been defined as the point in time of the last menstrual bleeding in a women's life. Menopausal symptoms affect about 70% of women. The objectives of the study were assessment of the women for menopausal symptoms, assessment of the effectiveness of exercises in reducing menopausal symptoms and associate the demographic variables with menopausal symptoms.

Methods: One group pre test and post test design was adopted for the study. Allowable error method was adopted to select the desired sample. The sample size was 30. Demographic profile and menopausal symptoms information were collected. Menopausal symptoms were assessed by Menopausal rating scale. The data collected were analyzed by using both descriptive and inferential statistics method. Paired 't' test was used to compare the pretest and posttest level of menopausal symptoms.

Results: Majority of the women (80%) had moderate menopausal symptoms before practice of deep breathing and walking exercise. After practicing exercises only four women had mild menopausal symptoms and 70% of the women relieved from joint pain. Association was found between age at first conception, number of conception, medical problems with pretest menopausal symptoms score.

Conclusions: This study review shows that Deep breathing and walking exercise was helpful in reduction of menopausal symptoms among menopausal women. This result can be potentially employed as one of the complementary therapy in the reduction of menopausal symptoms.

Keywords: Exercises, Menopause, Menopausal symptoms

INTRODUCTION

India has a large population, which has already crossed one billion mark with 71 million people over 60 years of age and the number of menopause women about 43 million. Menopausal symptoms affect about 70% of women approaching menopause. Average age of menopause is 47 years in Indian women with an average life expectancy of 71 years.¹ Menopause involves hormonal changes that cause physical symptoms. Symptoms of menopause vary from woman to woman.

The vasomotor symptoms include hot flushes and night sweats. The vaginal symptoms include uterine prolapsed and vaginal atrophy. The psychosomatic symptoms include dizziness, rapid heartbeat, numbness of extremities, irritability, tiredness, headache, sleep disturbance, pressure and tightness in head and body, muscle and joint pain, fainting and breast pain. The psychological symptoms include dysuria, increased urine frequency and urine leak during coughing and laughing.

Exercise among menopausal women is highly beneficial and safe. Walking is a very good stress management technique in addition to being good exercise. A cross-sectional study examined the relationship between exercise and BMI on menopausal symptoms of 886 women between the ages of 45-60. Results showed that exercise was effective in relieving psychological symptoms, tiredness, headache and limb numbness.² A randomized clinical trial with 164 sedentary women ages 42-58 years on the effects of a 4 month walking or yoga intervention on mental health and menopause related quality of life including sleep quality. The two exercise group were compared to a control group who did not change their inactive behaviors. The results identified reduced vasomotor symptom reporting in both of the exercise groups, with a larger effect for the women in the walking group versus women in the yoga group.³

METHODS

One group pre test post test design was adopted in this study. In the pre test menopausal symptoms was assessed with the use of menopausal rating scale. It was categorized in to very minimal symptoms, mild, moderate and severe. In that mild and moderate group of women were selected for the study. Walking and deep breathing exercises was given to them for 30 days and post test was done to assess the effectiveness.

The study was conducted in two areas namely Perumal Naidu Lay out and FAC colony. These areas are situated around P.S.G Rural health centre, Vedapatti. By allowable error method, 30 women were selected for the study and purposive sampling technique was adopted for selection of the sample.

Assessment tool was prepared for data collection. This tool consists of three sections.

- Section A: This section consists of demographic profile of the samples.
- Section B: This section consists of assessment of menopausal symptoms by menopausal rating scale. It includes 24 items. Based on the frequency of menopausal symptoms, the score given as 0,1,2,3 which are never, monthly once, weekly once, alternate days respectively. The total score is 72 and it is classified as very minimal, mild, moderate and severe symptoms.
- Section C: This section consists of steps to do the exercises.
- Section D: It consists of mother's diary which includes women who are practicing walking and deep breathing exercises daily.

Data collection and analysis

Data collection was for one month. Data was collected by interview, observation and mother's diary. Paired 't' test was used to analyze the significant difference in the score

before and after the practice of walking and deep breathing exercises.

RESULTS

Among 30 women majority were in the age group of 40-45 years. Ten women conceived in the age group between 15-20 years, seventeen women conceived in the age group between 20-25 years. Among thirty women, 26 women conceived for 1-3 times, 3 women conceived for 4-6 times and only one woman conceived seven times. Sixteen women attained menopause between the age group of 40-45 years. (Table 1).

Eleven women were experienced hot flash. These symptoms mostly affected face and neck. 30% had excessive sweating. 50% had palpitation, 60% had experienced difficulty in falling asleep, 30% of women experienced waking up early, 40% had a feeling of loneliness, 51% had experienced lack of memory, 40% had experience of incontinence and 71% had a complaint of joint pain. No one experienced difficulty in urinating. Six women reported complaint of impaired memory and two women reported a complaint of decrease in concentration rarely. Three reported a feeling of panicky always.

Table 1: Demographic variables of women n-30.

Characteristics	Number of women
Age in years	
40-45	8
45-50	9
50-55	13
Age at first conception	
15-20	10
20-25	17
25-30	3
Number of conception	
1-3	26
4-6	3
7-9	1
Age at menopause	
40-45	16
45-50	11

After the practice of deep breathing and walking exercises no one experienced a problem of waking up early 25 women not experienced hot flushes, 98% were not experienced palpitation. All shown interest to their works, 80% were not experienced impaired memory, 83% not experienced a feel of aggressive and 93% of women not experienced a feel of loneliness. Before and after practice of deep breathing and walking exercises, there is a major change in the symptoms like palpitation, difficulty in falling asleep, waking up early, sad, impaired memory and joint pain.

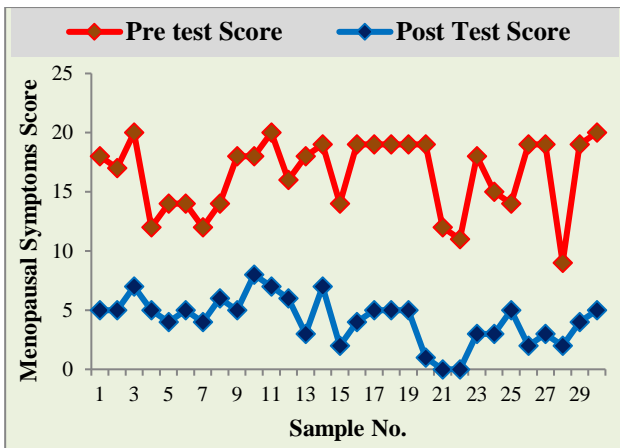


Figure 1: Comparison of menopausal symptoms score among women before and after practicing deep breathing and walking exercises.

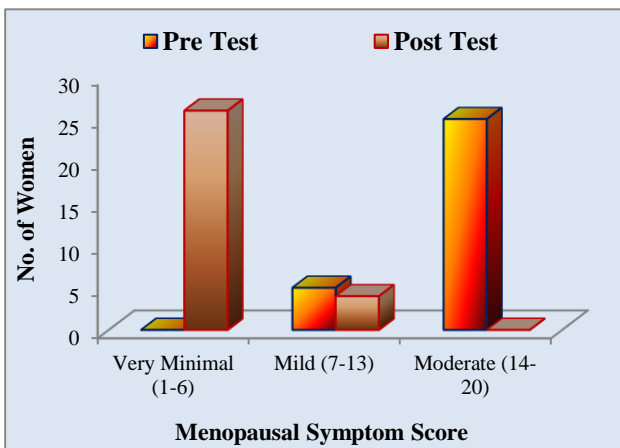


Figure 2: Comparison of pre test and post test level of menopausal symptoms.

Table 2: Comparison of level of menopausal symptoms score before and after practicing deep breathing and walking exercises through paired ‘t’ test.

Menopausal symptoms	Mean	SD	df	‘t’ value
Pre Test	16.5	2.983	29	23.45
Post Test	4.3			

As the calculated value is 23.45, which is greater than the table value (3.646) at the degree of freedom of 29. It is significant at the level of 0.001. Hence there is a significant improvement in post test score of menopausal symptoms (Table 2).

Significant association was found between age at first conception (χ^2 is 11.7), number of conception (χ^2 is 6.713), medical problems with pre test menopausal symptoms score. No association was found between age and pre test menopausal symptoms score.

DISCUSSION

The focus of the study was to assess the deep breathing and walking exercises in reducing menopausal symptoms among women. A holistic approach to health is most essential for the menopausal women, in whom proper diet, exercise and healthy life style can works wonders. Additionally, the research revealed that regular exercise can reduce severe symptoms in menopausal women and improve their quality of life.⁴

Demographic variables of menopausal women

Among 30 women thirteen women under 50-55 years and seventeen women conceived in the age group between 20-25 years and 26 women conceived for 1-3 times. As the number of conception increases there is more stretching of the ligaments and muscles which lead to incontinence.⁵

Preassessment of menopausal symptoms

Majority of the women experiences hot flashes and excessive sweating. The occurrence of hot flashes has been reported at rates of up to 90% of women who undergo bilateral oophorectomy.⁶ up to 40% to 60% of premenopausal and postmenopausal women experience sleep disturbance, including symptoms such as waking too early and difficulty in falling asleep.⁷ The most commonest noticeable menopausal symptoms are hot flush, sweating, palpitations, irritability, joint pain, stress incontinence and burning micturition.⁸

Effect of deep breathing and walking exercises on menopausal symptoms

Reassessment was done after a minimum gap of 30 days of practice of deep breathing and walking exercises. There is a marked reduction in most of the symptoms except sexual desire. In a randomized control trial the researcher found that participating in more physical activity predicted larger social networks, which can increase brain stimulation thus indirectly lower depressive symptoms.⁹

Before and after practice of deep breathing and walking exercises, there is a major change in the symptoms like palpitation, difficulty in falling asleep, waking up early, sad, impaired memory and joint pain. But no changes in the symptoms like urinary incontinence, difficulty in urinating, feeling excessive dryness of vagina.¹⁰ It was supported by a research study in that walking for 2-3hours a week can significantly improve memory problems in women over 50.¹¹

Association of selected demographic variables with menopausal symptoms

Significant association was found between age at first conception, age at menopause and medical problems. A

cross sectional study found that women with BMI over 32kg/m² had a higher prevalence of hot flashes, urine leakage, vaginal dryness, sleep difficulty than women with a BMI less than 19kg/m².¹²

CONCLUSION

Menopause is the signal indicating the approach of the third phase of life, just as the beginning of the menopausal cycle indicates that a woman is entering the second phase of woman hood from child hood. Majority of women experiencing multiple physical and physiological symptoms. In the present study deep breathing and walking exercises was found to be very effective in reducing the menopausal symptoms.

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