



Effects of various yoga postures and pranayama on post-menopausal women: An experimental study

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Abstract

Introduction: Approximately 1.2 billion women worldwide will be menopausal or postmenopausal by the year 2030, with 47 million new entrants each year. More than 85% of these women will experience problematic symptoms, including hot flashes, night sweats, sleep disturbances, sexual dysfunction, mood disorders, weight gain, and cognitive declines that gives idea about the severity of menopausal symptoms.

Material and Methods: Experimental study conduction 30 postmenopausal women's with convenient sampling and duration was 10 weeks MRS (Menopausal Rating Scale), used as study tool

Results: Paired T test used for pre and post intervention (Yoga)

Conclusion: There is significant decrease in severity of all the symptoms which we have taken in to consideration

Keywords: menopause, yoga, MRS scale, hot flushes

Introduction

Menopause is defined as the permanent cessation of ovarian function and is there by the end of a woman's reproductive phase. Menopause begins around the age of 45 years and is characterized by at least 12 months of amenorrhea. Menopause occurs naturally in most women between ages 45 and 52 years and is marked by changes in hormonal status and the cessation of the menstrual cycle [1,2]. Approximately 1.2 billion women worldwide will be menopausal or postmenopausal by the year 2030, with 47 million new entrants each year [3]. More than 85% of these women will experience problematic symptoms, including hot flashes, night sweats, sleep disturbances, sexual dysfunction, mood disorders, weight gain, and cognitive declines that gives idea about only 10% of women to visit a healthcare provider.

In the Women's Health Initiative Study (WHI) era, symptom management has become more complex owing to awareness of the risks associated with hormone replacement therapy (HRT). Women use a range of symptom management options, including such self-care strategies as use of over-the-counter preparations complementary and alternative therapies, such as exercise programs and other lifestyle modifications; and taking drugs. Contact with health professionals during the peri-menopause creates an opportunity for women to consider strategies for both symptom management and promotion of healthy aging. The paucity of data about women's experiences of symptoms and their efforts at symptom management during the perimenopause [3].

While it is inevitable part of every woman's life, about 3 out of 4 women experience complaints during menopause. These symptoms often persist for several years post menopause [1]. Post menopause is caused by the same hormonal changes and external factors that cause the other stages of menopause.

Also, = post menopause can be triggered by other factors:

1. Internal factors like fluctuations in hormones like oestrogens and progesterone are at the very foundation of post menopause and may occur naturally
2. Few external factors brought on by a trigger, such as an illness or surgery [2].

The risk of cardiovascular therapy with menopause likely due to the co-incident increase in insulin resistance and related atherogenic changes that together compromise to metabolic or insulin resistance syndrome, a cluster of metabolic and hemodynamic abnormalities strongly implicated in the pathogenesis and progression of cardiovascular disease [3].

Hormone replacement therapy can effectively reduce menopausal symptoms. Hormonal therapies have been shown to be less effective than non-hormonal therapy and to be associated with their own adverse events that restrict their use of many women. Therefore, many menopausal women use complementary therapies to cope with their symptoms, and yoga is among the most commonly used complementary therapies for menopausal symptoms [1].

Yoga is an ancient Indian practice. Deriving from ancient Indian philosophy, yoga comprises physical postures as well as advice for ethical lifestyle and spiritual practice with the ultimate goal of uniting mind, body and spirit. Yoga is most often associated with physical postures (Asana), breathing techniques (Pranayama), and meditation (Dhyana) [4, 5].

Yoga interventions have been shown to decrease anxiety distress, blood pressure, pain and fatigue [6, 7] Yoga therapy can improve hot flashes and night sweats. It can also improve cognitive function such as remote memory, mental balance, attention and concentration, delayed and immediate verbal retention, recognition [8, 9]. Yoga for menopause is all about staying cool, calm, and collected. You want to keep your nervous system balanced and use the practice to maintain strength without overheating the body. Using yoga to manage menopausal symptoms like pain relief and stress can be rewarding. Menopausal women's body typically

experiences menopause symptoms stomach and digestive system may be upset often, and emotions are off, mind feels foggy, and she may encounter trouble sleeping. As her body goes through menopausal changes, it may also experience changes associated with age, such as muscle loss and degenerating joints. All of these areas can be targeted for relief through certain yoga poses. Yoga can reduce the emotional symptoms of menopause, doing more than just treating the physical pain. These yoga poses are favourite ways to meet menopause with grace and acceptance^[13].

Aim

To see the effect of yoga on various post-menopausal symptoms.

Objectives

To see the effect of yoga on various postmenopausal symptom by using menopausal rating scale. (MRS)

Research question

Is there any effect of yoga on various post-menopausal symptoms?

Methodology

1. Study design

Experimental study conducted on 30 postmenopausal women's with convenient sampling and duration was 10 weeks MRS (Menopausal Rating Scale), used as study tool MRS scale -The scale was designed and standardized as a self-administered scale

- To assess symptoms/complaints of aging women under different conditions,
- To evaluate the severity of symptoms over time,
- To measure changes pre- and post-menopause
The scale became widespread used (available in 10 language, high reliability and high validity).

2. Inclusion criteria

- Women who have attained their menopause with the gynaecological reports.
- Those who is ready to continue yoga program for 10 weeks.

3. Exclusion criteria

- Had undergone a hysterectomy and/ or salpingoophorectomy
- Had taken HRT or oral contraceptives within the prior 3 months
- Those who were taking anti-depressant medication
- Subjects having any Neuro-musculoskeletal pain or dysfunction
- Subjects who are undergoing any other strengthening or mobility fitness program.

Procedure

Post-menopausal women, were included who were willing to participate in the study, as per inclusion and exclusion criteria. Ethical permission was taken. Study was explained to them and questionnaire and consent form was distributed to them. Questionnaire: MRS (Menopause Rating Scale) We ensure that all potential participants are fully informed about study materials prior to obtaining consent and that they are given the opportunity to withdraw from the study, if they

feel uncomfortable. Expected time to fill up the questionnaire is 10- 15 minutes.

Information was collected before program and again after completing of 10 weeks program. Data was analysed using paired T test.

Program

Class was for 60 minutes, 5 days/ week for 10 weeks.

The class use to start with general body warm up which for around 10 minutes, followed by Surya namaskar (sun salutations) lasting around 15 minutes; Pranayama and yoga postures for 35 minutes like:

1. Padmasana (Lotus pose)

- It helps to increase concentration and focused attention. The concentration power of the brain gets increase manifold and calms down brain as well.
- It brings blood pressure under control.

2. Bhujangasana (Cobra pose)

- The pose strengthens abdominal muscles and toning uterine muscles.
- Contracts dorsal muscles in the lumbar region of the spine. It invigorates the nervous system and aligns the spinal column.
- It expands chest, strengthens the lungs and facilitate deeper breathing It helps to alleviate menstrual disorders and the back and/or uterine pain that can accompany menstruation and menopause.

3. Paschimottanasana (Seated forward bend pose)

- It calms the brain and reduces stress and mild depression. Stretches spine, shoulders, hamstrings
- Reduce anxiety and fatigue
- Reduce symptom of menopause and menstrual discomfort.

4. Setubandhasana (Bridge pose)

- Stretches the chest, neck, spine and hips
- Strengthen the back, buttock and hamstrings
- Improve circulation of blood. Helps alleviate stress and mild depression.
- Improve digestion. Helps relieve symptoms of menopause.
- Reduce backache and headache
- Reduce fatigue, anxiety and insomnia

5. Yogamudrasana (Psychic Union Pose)

- Tone the organs in abdomen
- Helps to expand intercostal area thus allowing to develop healthier breathing pattern.

6. Vajras Ana (Diamond Pose)

- Helps for better blood circulation in the body.
- It helps to reduce back pain.

7. Savasana (Corpse Pose)

- Calms the brain and relieve stress and mild depression.
- Relaxes the body.
- Reduces headache, fatigue and insomnia.
- Helps to lower blood pressure.

Results

Table 1: Table shows that mean & standard deviation of postmenopausal symptoms pre and post yoga program

Variables	Mean Pre	SD	Mean post	SD	p-value
Hot flushes	3.23	0.63	0.8	0.71	<0.01
Heart discomfort	1.17	0.75	0.57	0.5	<0.01
Sleep disturbances	2.9	0.48	0.7	0.6	<0.01
Depressive mood	2.57	0.63	0.6	0.5	<0.01
Irritability	2.9	0.61	0.6	0.5	<0.001
Anxiety	2.73	0.69	0.57	0.5	<0.001
Physical and mental exhaustion	1.63	0.56	0.47	0.51	<0.01
Sexual problems	0.53	0.57	0.23	0.43	<0.001
Bladder problems	1.83	0.38	0.37	0.49	<0.001
Dryness of vagina	1.07	0.74	0.17	0.38	<0.01
Joint and muscular discomfort	1.67	0.61	0.37	0.49	<0.01

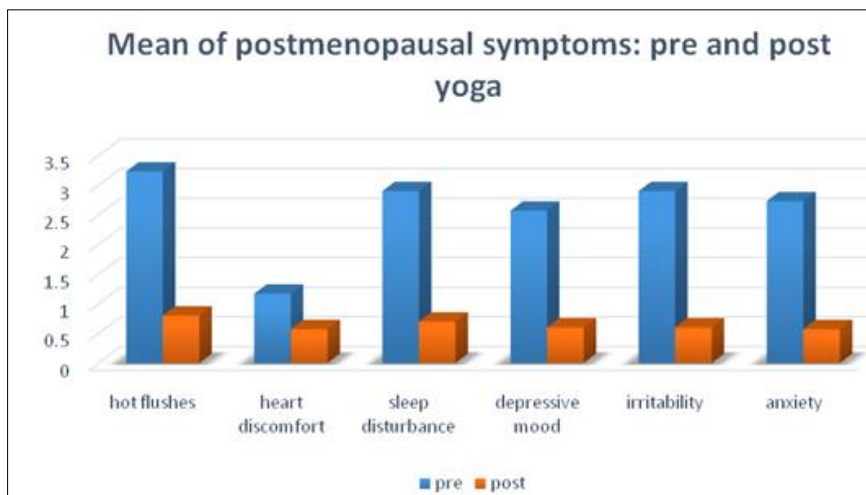


Fig 1

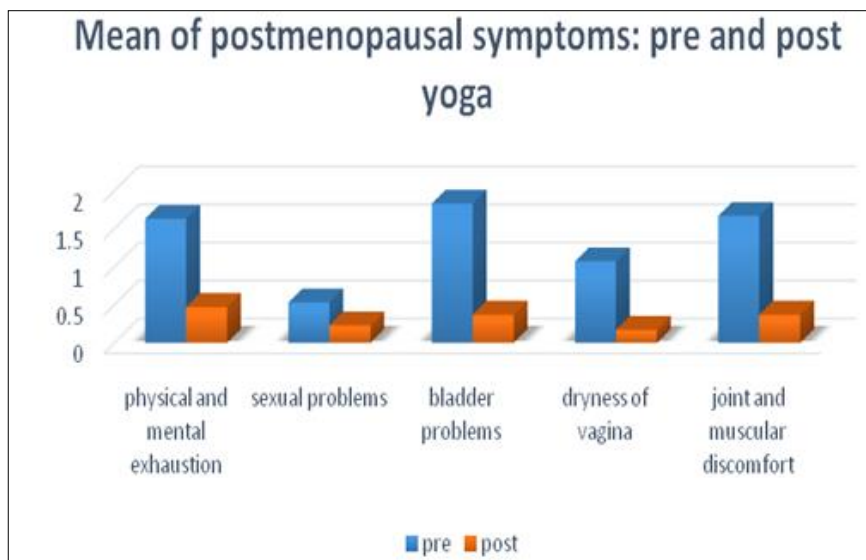


Fig 2

Discussion

Yoga may be attractive as an alternative to traditional aerobics and strength training program because it requires little space and virtually no equipment, limited or no harmful side effects and with its focus on relaxation of mind and body. Various studies has been done on menopausal women to see the various symptoms occurring in that phase and thus, we would like to see the effect of these particular yoga postures on postmenopausal symptoms. Yoga is form

of physical activity which may assist in achieving recommended levels of physical activity. Women today can expect to spend one half to one third of their lives in their post-menopausal years. In this post-menopausal phase, women face various symptoms such as hot flushes, sweating, stress, sleep disturbances so yoga might reduce women's these post-menopausal symptoms. Yoga is mind body treatment that might be effective in reducing menopausal symptoms.

One of the studies was conducted in United States by Cathryn Booth LaForce, Rebecca C. Thurston, Mary R Taylor, to assess the feasibility and efficiency of a yoga treatment for menopausal symptoms. In which both physiologic and self-reported measures of hot flashes were included. In their study they gave a 10-week yoga program to participants. They did pre and post treatment assessments and found that, significant in post treatment improvement for severity of questionnaire related total menopausal symptoms. In our study, we gave 10 weeks yoga program. Pre and post assessment was done by using MRS scale. And we found the similar results. Initially, severity was present in symptoms like hot flashes, sleep disturbance, depressive mood, irritability, anxiety on MRS. Whereas significant changes were seen in post assessment. After completing of 10 weeks yoga program, all symptoms showed decreased score in its severity on MRS scale. Another study we found that done by Department of Family and Child Nursing, University of Washington, Seattle, Washington, USA Nancy Fugate Woods, PhD, RN, Ellen Sullivan Mitchell, PhD, RN revealed that the appraisal of the consequences of perimenopausal symptoms by women from different ethnic groups was enhanced significantly as a result of the Study of Women's Health Across the Nation (SWAN) and other studies in progress. Yoga is a physical, mental and spiritual practice controlling the body and the mind. In menopausal women there is hormonal imbalance which leads to stress results into anxiety, irritability thus to sleep disturbances. In stress their activation of sympathetic nervous system which accelerates heart rate so results into heart discomfort. It can be a great way to get rid of stress in both and mind. by activating parasympathetic nervous system. Yoga postures, pranayama and meditation are effective techniques to release stress and thus other postmenopausal symptoms. All the subjects were satisfied with the yoga program. Thus, yoga improved most of the symptom profile thus contributing significantly in the improvement of overall quality of life. Yoga is relatively simple to learn and is economical, non-invasive with multiple collateral lifestyle benefits. Group and individual practice may also help to improve lifestyle choices and health-related attitudes in part, by enhancing psychological well-being and thereby contributing significantly to chronic disease protection and health promotion. Though most of the clinical effects of yoga are probably brought about by vagal stimulation and parasympathetic activation,

Future scope of study

High-quality research is needed to confirm and further explore the additional beneficial effects of yoga in postmenopausal women

Conclusion

The present study suggests that regular practice of Yoga exercises improves Post-menopausal comfort by reducing the symptoms, these findings, suggests incorporation of regular yoga exercises can enhance the quality of life. Since many menopausal women request complementary therapies either instead of hormone replacement therapy or in addition to it, yoga can be preliminarily recommended as an adjunct intervention for women who suffer from psychological complaints associated with menopause. However, more rigorous research is needed to underpin these results. The

results revealed that yoga effectively decreased menopausal symptoms.

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