

Impact Of Yoga On Triglycerides Among Menopausal Women

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Abstract:

The purpose of the random group experimental study was to find out the impact of yoga on triglycerides among menopausal women. 60 menopausal women were selected from Chennai, between the age group of 45 and 55 years and they were divided into two groups, namely study group and control group with 30 subjects each. It was hypothesized that there would be significant differences among the menopausal women on triglycerides. Preliminary test on triglycerides was taken before the start of the intervention program. Study group subjects were given Yogic practices with mantra Chanting for 60 minutes, 5 days a week for a total period of twelve weeks. Control Group subjects were physically active doing their normal activities. After the intervention period, the two groups were retested again on the same selected dependent variable. Paired t test and Independent t test was used to find out the significant differences between the study group and the control group. The test of significance was fixed at 0.05 level of confidence. The results of the research proved that the study Group showed significant differences on triglycerides than the Control Group due to Yogic practices among menopausal women. The hypothesis was accepted at 0.05 level of confidence. Hence it is concluded that Yogic practices are beneficial to the menopausal women to maintain healthy lifestyle and improved quality of life.

Keywords: Yoga, mantra Chanting, triglycerides, menopausal women

INTRODUCTION

Around 25 million women reach menopause each year, and in 1990 there were about 467 million menopausal women worldwide with an average age of 60. By 2030, this number is expected to rise to 1.2 billion, with 47 million new cases annually. Menopause also has major implications for mortality: during the reproductive years, women have lower mortality risks than men, but these risks increase after menopause, mainly due to a rise in cardiovascular disease and certain cancers, such as breast and endometrial cancer, indicating that the reproductive period offers protective health benefits that diminish afterward. Hill, K. (1996).

Yoga is a mind body practice combining physical activity with mindful self awareness, breath, and energy. Its healing approach rests on four principles: the body is a unified whole where all dimensions affect each other; practices must be individualized; yoga is self empowering, with healing arising from active personal involvement; and a positive mental state accelerates recovery, while negativity can delay it. Woodyard(2011)

With longer life expectancy, women spend about a third of their lives post menopause, making management of peri and post menopausal symptoms important. While estrogen therapy is effective, its limitations highlight the need for alternatives. Yoga, incorporating postures, breathing exercises, and meditation, is a holistic practice shown to reduce symptoms such as hot flushes and night sweats, and lower psychological and physiological cardiovascular risk factors. Research suggests even short term yoga practice can help manage menopause effectively. Vaze, N., & Joshi, S. (2010).

The aim of the Random group Experimental study was to find out the impact of yoga on triglycerides among menopausal women. The objectives of the research were to find out whether there would be any significant difference on triglycerides due to yoga among menopausal women.

Razay, G., et al (1992) assessed that triglyceride levels rise significantly after menopause, contributing to a higher risk of coronary heart disease. In women over 50, triglycerides, total cholesterol, and insulin levels increased notably compared to younger women, even after adjusting for lifestyle and body weight. These results highlight that menopause triggers unfavourable lipid changes especially elevated triglycerides which may play a key role in the increased heart disease risk among postmenopausal women.

According to Rosano, G. M. C et al (2007) Menopause significantly increases the risk of cardiovascular disease (CVD) due to the loss of estrogen, which negatively affects heart and metabolic health. This hormonal decline leads to unfavourable changes such as central fat accumulation, higher blood pressure, abnormal lipid levels, reduced glucose tolerance, and vascular inflammation—all of which heighten heart disease risk. Managing hypertension and glucose intolerance is crucial for menopausal women. Evidence suggests that early hormone replacement therapy (HRT) may offer cardiovascular protection, especially, drospirenone combined with 17β-estradiol helps lower blood pressure and improve heart health by counteracting fluid retention, making it a potentially beneficial option for reducing CVD risk after menopause.

A study published by the Praveena, S. M et al (2018) found that three months of regular yoga practice improved heart rate variability (HRV)—a key indicator of heart health—in early menopausal women. The yoga group showed enhanced parasympathetic activity (better heart regulation), while non-yoga participants showed signs of increased stress response. These results suggest that yoga supports cardiovascular protection and reduces CVD risk in postmenopausal women by restoring autonomic balance and promoting heart health naturally.

Shantakumari, N., et al (2013) in their study evaluated the effect of yoga on dyslipidemia in type 2 diabetes patients. One hundred participants were randomized into control and yoga groups; the yoga group practiced yoga daily for one hour along with medication for three months. Compared to controls, the yoga group showed reduced total cholesterol, triglycerides, and LDL, and increased HDL. Yoga thus aids in improving lipid levels through physical activity and stress management. Materials and Methods: 60 menopausal women were selected from Chennai, between the age group of 45 and 55 years and they were divided into two groups as study group, and control group with 30 subjects each. It was hypothesized that there would be significant differences among the menopausal women on triglycerides. Preliminary test on triglycerides was taken before the start of the training program. Study group subjects were given yoga for 60 minutes, 5 days a week for a total period of twelve weeks. Control Group were physically

active doing their routine activities. After the intervention period, the two groups were retested again on the same selected dependent variable. PAIRED T TEST was used to find out the significant differences between the study group and the control group. The test of significance was fixed at 0.05 level of confidence.

The study group followed a structured yoga routine designed to promote inner calm and heart balance. The session began with gentle loosening movements from the Pawanmuktasana Series to ease joint tension, followed by Suryanamaskar to stimulate circulation and energy flow. A series of calming asanas—such as Tadasana, Trikonasana, Supta Baddha Konasana, and Setu Bandhasana—were practiced relaxing the body, steady the mind, and support heart tranquility. Overall, the yoga regimen helped menopausal women achieve physical flexibility and emotional calmness, fostering cardiovascular harmony.

Along with asanas, subjects practiced pranayama and meditation techniques that promoted heart calmness and emotional balance. Mild Kapalabhati energized the body, while Bhramari and Nadi Shodhana helped soothe the nervous system and steady the heartbeat. The inclusion of mantra chanting added a deeply tranquil element—the sound vibrations eased stress, quieted the mind, and nurtured inner peace. Together, these practices created a harmonizing effect on both mind and heart, helping menopausal women experience calmness, emotional stability, and restful well-being.

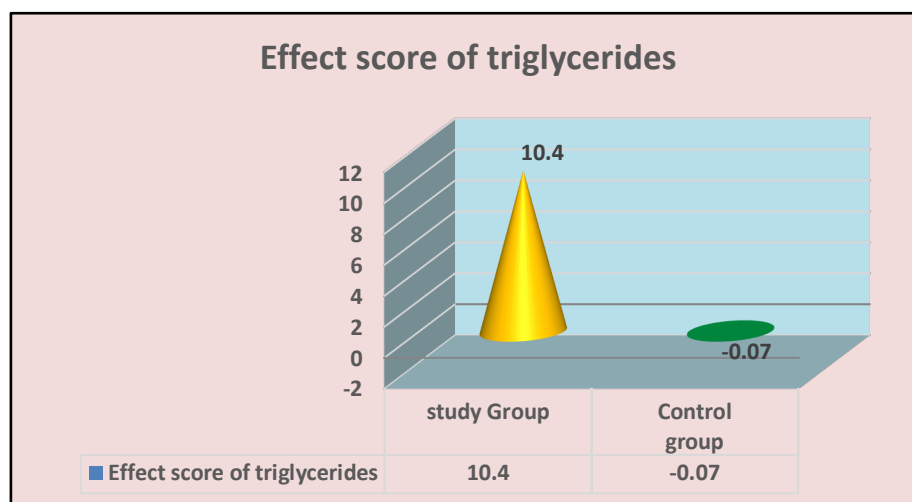
RESULTS AND OBSERVATIONS:

Computation of paired t test and effectiveness of yogic intervention between study group and control group

Group	Effect Score of Triglycerides		
	Mean	SD	Paired t test and p value
Study Group	10.40	14.87	t= 3.830 p= 0.001 ***
Control group	-0.07	0.37	t= 1.00 p= 0.326 (N.S)
Independent t value and p value	t = 3.853, p= 0.000 ***		

The study group showed a significant reduction in triglyceride levels after the intervention (mean = 10.40, SD = 14.87; paired t = 3.830, p = 0.001), whereas the control group showed no significant change (mean = -0.07, SD = 0.37; paired t = 1.00, p = 0.326). An independent t-test confirmed that the reduction in triglycerides in the yoga group was significantly greater than in the control group (t = 3.853, p = 0.000). These results suggest that structured yoga practice effectively decrease triglycerides in lipid metabolism, contributing to cardiovascular protection and heart health in menopausal women.

Graphical representation of paired t test between study group and Control group



The graph shows the impact of yoga on triglyceride levels. The study Group had a large positive change (10.4), indicating a significant reduction in triglycerides, while the Control Group showed virtually no change (-0.07). This visually confirms that yoga effectively decreases triglyceride levels, supporting heart health and cardiovascular protection in menopausal women which was in line with the study done by Praveena, S. M., et al (2018).

Results:

The results of the research proved that the study Group showed significant differences on triglycerides (decreased) than the Control Group due to Yoga among menopausal women. The hypothesis was accepted at 0.05 level of confidence. Hence it is concluded that Yoga is beneficial to the menopausal women to maintain healthy heart health and improved quality of life.

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