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EFFECT OF YOGA, PRANAYAMA WITH NATURAL DIET ON PHYSIOLOGICAL FACTORS AND LIPID PROFILE AMONG PATIENTS OF CORONARY ARTERY DISEASE

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ABSTRACT

As defined by World Health Organization (WHO), it is a "State of complete physical, mental, and social well being, and not merely the absence of disease or infirmity." Health is a dynamic condition resulting from a body's constant adjustment and adaptation in response to stresses and changes in the environment for maintaining an inner equilibrium called homeostasis. While this common definition of health certainly has merit Imagine someone (Person A) who is the picture of physical health: he has boundless energy, perfect digestion, a sharp mind, no chronic, inflammatory conditions, and rarely (if ever) get colds and flues. But in other areas of life, this person is a wreck: he has terrible relationships, he's selfish and doesn't contribute to the lives of others, and he has no sense of humor, rarely has fun, and is miserable most of the time.

KEYWORDS: *Yoga, Artery, Disease*

INTRODUCTION

Yoga is one of the six main systems of Indian philosophy called Shad-Darshanas. Yoga is a philosophy as a well as a practical science. The Yoga system of philosophy has been existing from ancient times, but it was codified by Maharishi Patanjali in his classical treatise, today known as Patanjali Yoga Sutras.

Today the system of yoga has been recognized worldwide as a way of life to maintain optimum health and fitness of body and mind. The United Nations has declared 21st June as the International Yoga Day. In spite of the wide spread recognition of yoga, there may arise confusions in the mind of practitioners about what is true yoga – what is yoga and what it is not. Yoga is not about twisting the body and doing gymnastic feats. Neither has it to do with psychic powers and its display. Many uninformed people get deluded when they see tricks, magic and various siddhis (or supernatural powers) and associate it with yoga. This is wrong understanding of yoga.

Yoga has nothing to do with these tricks, magic, psychic powers or gymnastics. Instead, Yoga is a systematic method to achieve harmony of body, breath, mind and soul.

Coronary heart disease (CHD) is a disease in which a waxy substance called plaque builds up inside the coronary arteries. These arteries supply oxygen-rich blood to your heart muscle. When plaque builds up in the arteries, the condition is called atherosclerosis. The buildup of plaque occurs over many years.

Coronary artery disease is the narrowing or blockage of the coronary arteries caused by atherosclerosis. Atherosclerosis (sometimes called "hardening" or "clogging" of the arteries) is the buildup of cholesterol and fatty deposits (called plaque) on the inner walls of the arteries that restrict blood flow to the heart.

Without adequate blood, the heart becomes starved of oxygen and the vital nutrients it needs to work properly. This can cause chest pain called angina. When one or more of the coronary arteries are completely blocked, a heart attack (injury to the heart muscle) may occur.

Yoga has been the subject of research in the past few decades for therapeutic purposes for modern epidemic diseases like mental stress, obesity, diabetes, hypertension, coronary heart disease, and chronic obstructive pulmonary disease. Individual studies report beneficial effect of yoga in these conditions, indicating that it can be used as nonpharmaceutical measure or complement to drug therapy for treatment of these conditions. However, these studies have used only yoga asana, pranayama, and/ or short periods of meditation for therapeutic purposes. General perception about yoga is also the same, which is not correct. Yoga in fact means union of individual consciousness with the supreme consciousness. It involves eight rungs or limbs of yoga, which include yama, niyama, asana, pranayama, pratyahara, dharana, dhyana, and samadhi. Intense practice of these leads to self-realization, which is the primary goal of yoga. An analytical look at the rungs and the goal of yoga shows that it is a holistic way of life leading to a state of complete physical, social, mental, and spiritual well-being and harmony with nature. This is in contrast to purely economic and material developmental goal of modern civilization, which has brought social unrest and ecological devastation.

It is well known that many antihypertensive agents have been associated with numerous undesirable side effects. In addition to medication, moderately intense aerobic exercise is well known to lower blood pressure. Interestingly, it has been very convincingly demonstrated in a randomized controlled study that even a short period of regular yogic practice at 1 h/day is as effective as medical therapy in controlling blood pressure in hypertensive subjects.

Yoga, together with relaxation, biofeedback, transcendental meditation, and psychotherapy, has been found to have a convincing antihypertensive effect. The mechanism of yoga-induced blood pressure reduction may be attributed to its beneficial effects on the autonomic neurological function. Impaired baroreflex sensitivity has been increasingly postulated to be one of the major causative factors of essential hypertension.

The practice of yogic postures has been shown to restore baroreflex sensitivity. Yogic asanas that are equivalent to head-up or head-down tilt were discovered to be particularly beneficial in this regard. Tests proved a progressive attenuation of sympatho-adrenal and renin-angiotensin activity with yogic practice. Yogic practice, through the restoration of baroreceptor sensitivity, caused a significant reduction in the blood pressure of patients who participated in yoga exercise.

Yoga has proven efficacy in managing secondary cardiac complications due to chronic hypertension. Left ventricular hypertrophy secondary to chronic hypertension is a harbinger of many chronic cardiac complications, such as myocardial ischemia, congestive cardiac failure, and impairment of diastolic function. Cardiovascular response to head-down-body-up postural exercise (*Sarvangasana*) has been shown to be particularly beneficial in preventing and treating hypertension-associated left ventricular hypertrophy and diastolic dysfunction. In one study, the practice of sarvangasana for 2 weeks caused resting heart rate and left ventricular end diastolic volume to reduce significantly.

OBJECTIVES OF THE STUDY

- To Find out whether Asana with natural diet significantly improve on selected physiological variables and lipid profiles among patients of coronary artery disease.
- To Find out whether Pranayama with natural diet significantly improve on selected physiological variables and lipid profiles among patients of coronary artery disease.
- To Find out whether Combinations of Asana, Pranayama with natural diet significantly improve on selected physiological variables and lipid profiles among patients of coronary artery disease.
- To Find out whether Combinations of Asana, Pranayama with natural diet significantly improve on selected physiological variables and lipid profiles better than Asana with natural diet, Pranayama with natural diet and control group among patients of coronary artery disease.

HYPOTHESIS

- It was hypothesized that Asana with natural diet would have significantly improved on selected physiological variables and lipid profile among patients of coronary artery disease.
- It was hypothesized that Pranayama with natural diet would have significantly improved on selected physiological variables and lipid profile among patients of coronary artery disease.
- It was hypothesized that Combinations of Asana, Pranayama with natural diet would have significantly improved on selected physiological variables and lipid profile among patients of coronary artery disease.
- It was hypothesized that Combinations of Asana, Pranayama with natural diet would have significantly improved on selected physiological variables and lipid profile better than Asana with natural diet, Pranayama with natural diet and control group among patients of coronary artery disease.
- It was hypothesized that Pranayama with natural diet would have significantly improved on selected physiological variables and lipid profile better than Asana with natural diet and control group among patients of coronary artery disease.
- It was hypothesized that Asana with natural diet would have significantly improved on selected physiological variables and lipid profile better than control group among patients of coronary artery disease.

RESULT OF THE STUDY

The Result of the Study Showed that Asana with natural diet significantly improved on selected physiological variables and lipid profile except LDL and HDL among patients of coronary artery disease.

The Result of the Study Showed that Pranayama with natural diet significantly improved on selected physiological variables and lipid profile among patients of coronary artery disease.

The Result of the Study Showed that Combinations of Asana, Pranayama with natural diet significantly improved on selected physiological variables and lipid profile except Total colostral among patients of coronary artery disease.

The Result of the Study Showed that Combinations of Asana, Pranayama with natural diet significantly improved on selected physiological variables and lipid profile better than Asana with natural diet, Pranayama with natural diet and control group except total colostral among patients of coronary artery disease.

The Result of the Study Showed that Pranayama with natural diet significantly improved on selected physiological variables and lipid profile better than Asana with natural diet and control group except total colostral among patients of coronary artery disease.

The Result of the Study Showed that Asana with natural diet significantly improved on selected physiological variables and lipid profile better than control group except total colostral among patients of coronary artery disease.

SIGNIFICANCE OF THE STUDY

Present study significant the following aspects:

- Patient can be benefited by identifying their physical fitness level.
- The outcomes of the present study help the sports authority of India and Tamilnadu to implement same with existing training structure.
- It helps the yoga teachers and coaches to identify the influence of their training schedule to enhance performance.

DELIMITATIONS

- The study will be delimited in the following aspects:
- The study is delimited to one hundred male patients of coronary artery disease only.
- The 100 subjects randomly divided in to four equal groups, in which Experimental group –I (N=25), underwent asana practices with natural diet (APWND), experimental group – II (N=25) underwent Pranayama practices with natural diet (PPWND), experimental group –III (N=25) underwent combination of Asana, Pranayama practices with natural diet (CAPPWND) and control group (N=25) did not undergo any specific training
- The age of the male patient ranged from 45 to 55 yrs.
- The training period was delimited to 24 weeks.
- The data was collected prior and after 24 weeks of the training program.

LIMITATIONS

- This study is limited in the following aspects and these limitations have to taken into considerations.
- The study was limited to the following aspects:
- Certain factors like lifestyle, daily routine work medication and other factors which may have an effect were not be taken into consideration.

- The differences in socio-economic status and educational back ground were not be taken into consideration.

- The heredity of the subjects and its influence on the selected criterion variables were not be taken into consideration.

CONCLUSIONS

- It was concluded that Asana with natural diet significantly improved on selected physiological variables and lipid profile among patients of coronary artery disease.

- It was concluded that Pranayama with natural diet significantly improved on selected physiological variables and lipid profile among patients of coronary artery disease.

- It was concluded that Combinations of Asana, Pranayama with natural diet significantly improved on selected physiological variables and lipid profile among patients of coronary artery disease.

- It was concluded that Combinations of Asana, Pranayama with natural diet significantly improved on selected physiological variables and lipid profile better than Asana with natural diet, Pranayama with natural diet and control group among patients of coronary artery disease.

- It was concluded that Pranayama with natural diet significantly improved on selected physiological variables and lipid profile better than Asana with natural diet and control group among patients of coronary artery disease.

- It was concluded that Asana with natural diet significantly improved on selected physiological variables and lipid profile better than control group among patients of coronary artery disease.

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