

Yoga and Health

Dr. Kanchan Joshi¹ and Preety²

HOD, Department of Yoga¹ and MA Yogic Science²
Shri Guru Ram Rai University, Dehradun, Uttarakhand, India

Abstract: *In recent decades, yoga has been studied for its potential to treat current epidemic diseases such as mental stress, obesity, diabetes, hypertension, coronary heart disease, and chronic obstructive pulmonary disease. Individual studies have found that yoga has a therapeutic effect on certain illnesses, implying that it can be used as a nonpharmaceutical strategy or as a supplement to drug therapy. However, for therapeutic objectives, these research have only used yoga asana, pranayama, and or short durations of meditation. Yoga's general perception is likewise the same, which is incorrect. Yoga actually refers to the merging of human consciousness with the divine awareness. 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.*

Keywords: Anxiety, chronic pulmonary disease, coronary heart disease, diabetes, hypertension, meditation, mental stress, pranayama, yoga

I. INTRODUCTION

As a result of changing lifestyles brought on by globalisation and modernization, mental stress, diabetes, hypertension, and cardiovascular disease are rapidly spreading epidemics. Yoga was brought to the western world in the 19th century, despite the fact that it originated in India thousands of years ago.

It has been studied as a therapeutic measure in mental stress, obesity, diabetes, hypertension, dyslipidemia, coronary heart disease, and chronic obstructive pulmonary disease throughout the last few decades.

1.1 Stress, Anxiety, and Depression

Yoga is useful in both preventing and managing aging stress and stress-related ailments. A systematic analysis of eight research found that, despite encouraging findings, it is impossible to conclude that yoga is useful in treating anxiety or anxiety disorders in general due to methodological flaws. However, there are some promising findings, especially in the case of obsessive compulsive disorder. Yoga therapies have been shown to have therapeutic benefits on depressive disorders in a systematic study. A research paper on individuals who had been prescribed antidepressants but had stopped taking them. Those with just partial remission demonstrated considerable improvement. Depression, anger, anxiety, and neurotic symptoms are reduced. The research backs up yoga's potential that isn't conventional. It has been shown that yoga decreases anxiety, stress, and levels of salivary cortisol(4,5) as well as plasma rennin levels, and 24-h urine norepinephrine and epinephrine levels.

These may additionally be the viable mechanisms for results of yoga on stress and stress-related diseases like diabetes, hypertension, and coronary artery disease. In 2008, researchers at the University of Utah showed that among control subjects and yoga practitioners, by functional magnetic resonance imaging (fMRI), that yoga practitioners had the higher pain tolerance and lower pain-related brain activity during the MRI. The study shows the importance of yoga in regulating pain responses and associated stress.

1.2. Overweight and Obesity

Obesity and being overweight are two terms that are used interchangeably. Being overweight or obese is connected to diabetes, hypertension, and ischemic heart disease. Yoga has been shown to help people regulate their weight. A three

month yoga asanas and pranayama programme with a yoga specialist, one hour per day in the morning, resulted in a decrease in body weight, BMI, and waist hip ratio.

1.3 Hypertention

In hypertensive individuals, 1 hour of daily yoga practice was found to be useful in reducing blood pressure. Yoga has been shown to have a convincing antihypertensive effect when combined with relaxation, biofeedback, transcendental meditation, and psychotherapy. Sukha pranayama at a rate of 6 breaths per minute lowered heart rate and systolic blood pressure in hypertension patients within 5 minutes of practice, according to a study from the Jawaharlal Institute of Postgraduate Medical Education and Research (JIPMER) in Puducherry.

This could be attributed to greater baroreflex sensitivity and a stabilisation of autonomic cardiovascular rhythms as a result of increased vagal regulation and/or decreased sympathetic activity.

1.4 Diabetes Mellitus

India is known as the world's diabetic capital since it has the highest number of diabetic cases. Yoga asanas and pranayama can help regulate type 2 diabetes mellitus and can be used in conjunction with medical treatment. A yoga expert trained participants in yoga asanas and pranayama for three months, 1 hour every day in the morning, resulting in lower fasting and postprandial blood glucose levels and acetylated haemoglobin. Another study from India found that after 40 days of practice, yoga asanas and pranayama reduced fasting blood glucose levels, as well as postprandial blood glucose levels and acetylated haemoglobin in patients with non-insulin-dependent diabetic mellitus. Within 10 days, they had established a sense of well-being, and there was a lowering of anti-diabetic drugs. Yoga has a positive influence on cognitive brain functions and can thus be used in conjunction with traditional medical therapy to improve cognitive brain functions in people with type 2 diabetes.

1.5 Coronary Heart Disease

Patients with angiographically established coronary artery disease who did yoga exercise for a year had fewer anginal episodes per week, improved exercise capacity, and lost weight, according to a randomised controlled trial. In the yoga group, revascularization operations were used less frequently. One-year follow-up angiography revealed that the yoga group had considerably more lesions regress than the control group. As a result, yoga practice promotes atherosclerotic regression and slows progression in patients with severe coronary artery disease. Another prospective, controlled, open trial involving individuals with angiographically proven coronary artery disease found that yoga-based lifestyle changes aided in the regression of coronary lesions and improved myocardial perfusion, resulting in therapeutic benefits and symptomatic improvement.

1.6 Chronic Obstructive Pulmonary Disease

Yoga increases lung function as well as the strength of the inspiratory and expiratory muscles. Yoga postures, pranayama, and meditation improved several measures of pulmonary function in subjects with mild to moderate bronchial asthma, as well as a decrease in exercise-induced bronchoconstriction, according to a randomised controlled trial conducted by the All India Institutes of Medical Sciences (AIIMS), Delhi. Yoga increased quality of life (QOL), reduced the usage of rescue medications in bronchial asthma, and allowed for the reduction of medications to occur sooner than with conventional treatment alone. (21) Another study conducted in the United States of America found similar results among patients with chronic obstructive lung disease.

1.7 Limitations of the Studies

The findings of several studies showing that meditation reduces mental stress and anxiety, improves pulmonary functions in patients with chronic obstructive pulmonary disease, and improves exercise tolerance in patients with coronary heart disease have been questioned due to the selection of favourably predisposed subjects in many of them.

Other flaws identified include the use of many co-interventions, excessive attrition, and insufficient statistical analysis. It suggests that additional rigorous scientific research are needed to back up the positive effects of yoga on stress, anxiety, asthma, and coronary heart disease.

However, what we've talked about so far concerning yoga isn't yoga in the genuine sense. "Yoga" refers to the superconscious state of Samadhi, in which our particular consciousness is united with the Universal Divine Consciousness. According to archaeological data and other writings, the methods outlined in the yoga sutras were employed as early as 3000 BCE (BCE).

According to oral tradition, the date could be even earlier. Yoga sutras have traditionally been passed down verbally by wise teachers to their students.

Patanjali, who lived between 400 BCE and 200 AD, is thought to have systematised and collated these sutras, according to scholars.

Yoga, according to Patanjali, is made up of eight steps or limbs, each of which is equally vital and linked together as a whole. Discriminative enlightenment, or self realisation, is the goal of these eight limbs. (25) The focus will be on the health benefits in this case. Yoga is divided into eight steps, or limbs:

1. Yama: Codes of restraint, abstinences, self-regulations
2. Niyama: Observances, practices, self- training
3. Asana: Meditation posture
4. Pranayama: Expansion of breath and prana, regulation, control
5. Pratyahara: Withdrawal of the senses, bringing inward
6. Dharana: Concentration
7. Dhyana: Meditation
8. Samadhi: Deep absorption, meditation in its higher state, the state of perfected concentration

1. The five yamas

The five yamas are norms of restraint, abstention, and self-regulation that pertain to our interactions with the outside world and other people. These principles relate to all aspects of life, including thought, speech, and action.

The following are the five yamas:

1. Ahimsa: Nonviolence, nonharming, noninjury
2. Satya: Truthfulness, honesty
3. Asteya: Non-stealing, to the point of not even desiring something that is not one's own. It also implies that we should recognise that whatever resources we have are borrowed from nature. Using or obtaining them in excess of what is required for survival is theft because they are no longer available to others.
4. Brahmacharya: Walking in consciousness of the greatest truth, remembering the divine, and practising God's presence. As a result, it leads to celibacy, or what is commonly referred to as brahmacharya.
5. Aparigraha: Nonpossessiveness, nonholding through senses, nongreed, nongrasping, nonindulgence, nonacquisitiveness.

2. The five niyamas

The 5 niyamas are the observances or practices of self-training and deal with our non-public inner world.

These are a practicable for self-training in relation to body, senses, and mind. The 5 niyamas are as follows:

1. Shaucha: Cleanliness and purity of physique and mind. It effects in purification of the delicate intellectual essence, brings pleasantness, mastery over the senses, and capability for self- realization.
2. Santosha: Contentment or at ease acceptance of what one presently has. It brings pleasure and happiness from within.
3. Tapah: Through asceticism or teaching of the senses, there comes a destruction of mental impurities and an ensuing mastery over the physique and the intellectual organs of senses and actions.
4. Svadhyaya: Self-study, reflection on sacred words, and learn about of the scriptures. Through this one attains communion with the underlying natural reality.
5. Ishvarapranidhana: Surrender and dedication to the Supreme Being or Causal Source, devotion, and surrender of fruits of practice. It helps in accomplishing the kingdom of perfected interest (samadhi)

3. Asana

Practice of postures to prepare the body for long meditation sessions. Any posture that is steady (head, neck, and chest must be aligned, leaving the natural curve in the spine) stable, motionless, and comfortable can be utilised for meditation. It is achieved by allowing attention to merge with the infinite by relaxing focus or loosening effort to sit in a particular posture.

4. Pranayam

Breathing techniques and breath control are practised with mindfulness, making breathing slow and delicate. Exhalation takes a long time. There is no gap between breath and exhale. It aids with mental control and concentration (dharana). Other varieties of pranayama exist as well.

5. Pratyahara

Withdrawal of cognition and action senses from both the exterior environment and mental images or impressions. Pratyahara occurs when the mental organs of perceptions and acts (indriyas) stop engaging with the appropriate objects in their mental realm and assimilate or return to the mindfield from which they emerged.

6. Dharana (Concentration)

It is holding or fixing the attention of mind onto one object.

7. Dhyana (Meditation)

It is sustained concentration

8. Samhadi

Trance or a state of bliss, reaching a state of absorption in a subject or in the Divine.

II. CONCLUSION

As previously said, the eight steps of yoga are primarily intended for self- realization. However, Yamas practise that results in improved relationships with the outside world can aid in the promotion of social health. It contributes to the development of a society in which individuals self-regulate by avoiding injuring others and maintaining honesty rather than relying on external controls or policing, which cannot be present at all times. Natural resource conservation is encouraged by asteya and aparigraha. Their actions will ensure that everyone has access to these resources. It will also prevent the dangers of over-exploitation of nature, which can lead to issues like global warming and the resulting tragedy.

The five niyamas, which deal with our personal inner world through self-training activities, aid in mental health promotion. A mentally healthy person is one who has a clear mind and positive thoughts (shaucha), is content (santosha), and has mastery over his body, senses, and actions, as well as mastery over his mind (tapah). Continuous introspection and scripture reading (svadhyaya) will aid in a person's improvement. The practise of surrendering the fruits of one's actions to the Supreme Being (ishvarapranidhana) aids in the development of a humble and service-oriented attitude.

In contrast to pure economic and material development as a goal of contemporary civilization, the major purpose of yoga is "self-realization or union of self-consciousness with the highest consciousness." We are all aware of the latter's contributions to the globe and humanity. It has given transient delight, which has been followed by more desires and, eventually, dissatisfaction. It has introduced an excessive amount of competitiveness and pressure to meet extremely high goals, resulting in stressful lives. It has resulted in socioeconomic inequity as well as unrest. We can see the social unrest and environmental devastation caused by this so-called modern model of development.

As a result, it can be stated that yoga is good to all aspects of health, including physical, mental, social, and spiritual well-being, while also promoting peace with nature and aiding in environmental conservation.

REFERENCES

- [1]. Kirkwood G, Rampes H, Tuffrey V, Richardson J, Pilkington K. Yoga for anxiety: A systematic review of the research evidence.

- [2]. Br J Sports Med 2005;39:884-91. Pilkington K, Kirkwood G, Rampes H, Richardson J. Yoga for Depression: The research evidence. *J Affect Disord* 2005;89:13-24.
- [3]. Shapiro D, Cook IA, Davydov DM, Ottaviani C, Leuchter AF, Abrams M. Yoga as a complementary treatment of depression: Effects of traits and moods on treatment outcome. *Evid Based Complement Alternat Med* 2007;4:493- 502.
- [4]. Michalsen A, Grossman P, Acil A, Langhorst J, Ludtke R, Esch T, et al. Rapid stress reduction and anxiolysis among distressed women as a consequence of a three month intensive yoga program. *Med Sci Monit* 2005;11:555- 61.
- [5]. West J, Otte C, Geher K, Johnson J, Mohr DC. Effects of Hatha yoga and African dance on perceived stress, affect, and salivary cortisol. *Ann Behav Med* 2004;28:114-8.
- [6]. Selvamurthy W, Sridharan K, Ray US, Tiwary RS, Hedge KS, Radhakrishnan U, et al. A new physiological approach to control essential hypertension. *Indian J Physiol Pharmacol* 1998;42:205-13.
- [7]. Smith C, Hancock H, Blake-Mortimer J, Eckert K. A randomized comparative trial of yoga and relaxation to reduce stress and anxiety. *Complement Ther Med* 2007;15:77-83.
- [8]. Balaji PA, Smitha VR, Sadat AS. Effects of yoga — pranayama practices on metabolic parameters and anthropometry in type 2 diabetes. *Int Multidiscip Res J* 2011;1:1-4.
- [9]. Murugesan R, Govindarajalu N, Bera TK. Effect of selected yogic practices in the management of hypertension. *Indian J Physiol Pharmacol* 2000;44:207-10.
- [10]. Anand MP. Non-pharmacological management of essential hypertension. *J Indian Med Assoc* 1999;97:220-5.
- [11]. Bhavanani AB, Sanjay Z, Madanmohan. Immediate effect of sukha pranayama on cardiovascular variables in patients of hypertension. *Int J Yoga Therap* 2011;21:73-6.
- [12]. Jain SC, Talukdar B. Role of yoga in middle aged patients of non-insulin dependent diabetes mellitus. *Indian J Clin Biochem* 1995;10:62-5.
- [13]. Malhotra V, Singh S, Singh KP, Madhu SV, P Gupta, Tandon OP. Effects of yoga asanas and pranayama in non-insulin dependent diabetes mellitus. *Indian J Tradit Knowl* 2004;3:162-7.
- [14]. Kyizom T, Singh S, Singh KP, Tandon OP, Kumar R. Effect of pranayama and yoga-asana on cognitive brain functions in type 2 diabetes-P3 event related evoked potential (ERP). *Indian J Med Res* 2010;131:636-40.