Yoga and Psychophysiologic Disorders

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ABSTRACT

Too much of stress and strain of life especially after the middle age, may lead to one of the stress diseases e.g. Hypertension, Asthma, Diabetes, Arthritis, Migraine, Headache etc. As the developing countries are also becoming more and more industrialised, the number of these diseases are increasing at a very fast rate. Hence, there is an urgent need for taking proper measures to prevent the development of such diseases and also to recognise and treat them in the early stages. Though recently innumerable tranquilizing agents have been discovered and marketed, all of them have certain toxic and habit forming properties. Hence, their use should be limited to the bare minimum followed by certain non-medical measures such as different type of yogic practice to control these diseases. So this paper attempts an evaluation of Yoga as a potent technique to manage stress which causes about 75 percent chronic bodily diseases.

Key Words: Yoga, Psychosomatic Disorders, Stress

Mankind has always tried to attain peace and happiness along with the ongoing process of development. The urgency of getting an ideal method of attaining mental peace has become great in view of the tremendous increase in the stress and strain of life especially in urban areas. Rapid industrialisation, competition, crowding, excessive hurry and worry are some of the major factors which lead to mental and physical changes. The person tries to adapt himself in these situations. However, if these situations are continued for a long time then the person fails to adapt himself and starts getting the manifestations of psychophysiological changes one by one. In the starting he gets psychic changes such as irritability, nervousness, sleeplessness etc. If

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these signs are not recognised and checked in time he gets some additional manifestations such as palpitation, increased pulse rate, rise of blood pressure etc. As these changes continue, the chain leading to higher order problem begins and the person becomes a victim of one of the psychophysiological disorders such as hypertension, peptic ulcer, diabetes mellitus, ulcerative colitis, bronchial asthma, migraine, rheumatoid arthritis, thyrotoxicosis, CHD etc.

Amongst all these disorders hypertension, diabetes and asthma seems to be most common. It is a worldwide phenomenon and the more advanced the country, the greater is the incidence of these diseases. What is most alarming is that the incidence is still increasing and is affecting more and more of younger generation.

As the number of stress related diseases are increasing day by day, there is an urgent need for taking proper measures to prevent the development of these diseases and also to treat them and recognize in the early stages. Though recently innumerable tranquilising agents have been discovered and marketed, all of them have certain toxic and habit forming properties. Hence, their use should be limited to the bare minimum followed by certain non-medical measures such as different types of yogic practices to control these diseases. For the treatment of stress related problems yoga has become a most common technique during the last three decades as it is economical, free from side effects (as in the case of drug therapy) and the cure is more or less radical. In fact, these seems to be on exposition of yogic practices all over the world, whether it is Patanjali’s variety or some of its derivatives. All yoga therapy is psychotherapy as its aim is ‘Chittavrittinirodha’. In fact, yoga is defined as science of mental control. It not only helps one to control one’s mental state, but also to improve one’s personality and behaviour, if it is practised regularly from childhood. One of the most distinguishing feature of ancient Indian thought including, of course, yoga with regard to human welfare in general and mental and physical health in particular is that it traces all man’s sufferings essentially to the faulty perceptions of the individual.

In all the stress responses the impairment of cognitive functioning is very common which disturb the equanimity of the individual. Yoga aims at bringing back this equanimity by a change at the cognitive level. That is why harmony is called yoga samatyam yoga uchyate (Bhagvadgita, 2148).

**Historical Background**

The practice of yoga has come down from the pre-historical part. The references to yoga are available in Upanishads and Puranas composed by
Indian Aryans in the later Vedic and post-Vedic period. The main credit of systematising yoga goes to Patanjali, who is the author of Yoga Sutra. He composed the treatise in brief code words known as “Sutras”. Amongst the, who popularise the yoga system throughout the world, the name of Swami Vivekananda stands out most prominently. By giving a scientific interpretation of yogic methods and by supplementing them with the philosophical thoughts as described in Bhagved Gita, he made the greatest contribution to the physical and mental harmony throughout the world. In recent years Sri Aurobindo also made many original contributions in the field of mind and consciousness. While the practice of yoga started nearly 6000 years ago, yoga did not emerge as a fully developed practice until 500 B.C. In its traditional form, yoga is considered a compete life-style that provides a path to spiritual enlightenment.

The practices of yoga came to the United States in the 1890s as a result of the teachings of Swami Vivekananda. It gained popularity in the 1960s because of a rising interest in and cultural acceptance of alternative modalities and mind-body therapies. Today, yoga is often practised as an exercise form separated from its traditional spiritual roots. In this form, yoga exercise is taught at health clubs, yoga centres and is often part of disease prevention and management programs in hospitals, such as stress reduction courses for people with high blood pressure and heart diseases.

Yoga, derived from the Sanskrit word meaning “union” is a spiritual practice that uses the body, breath, and mind to energize and balance the whole person. This mind-body therapy involves physical postures, breathing exercises, and meditation to improve overall well being. It has been stated that daily practice of yoga would help a person to maintain a perfect homeostasis of the mind and body throughout his life. According to Swami Chidanand (1985) our entire personality is nothing but a combination of body, prana and mind and all the troubles are due to disharmony among these three. Such disharmony can be removed and harmony can be achieved through yoga. Yoga helps in harmonious personality development. Practice of yoga helps not only in regaining and improving physical and mental health but in the improvement of intellectual functioning and adjustment in all spheres. Gita has aptly said ‘Yoga Karmshu Kaushalam’. That is, yoga brings efficiency in action. Practice of yoga helps in attaining concentration. Patanjali defines yoga as a control of the fluctuations of mind stuff (Chitta).

Different Types of Yoga

As the different connections between the mind and body were explored, various branches of yoga developed. These include:
**Astanga or Power Yoga:** Modern day variations of yoga developed for people who prefer a physically demanding workout.

**Bhakti Yoga:** The goal of this form of yoga is to take all of the love in one’s heart and direct it to God. By worshipping God, the person who practices regularly becomes filled with respect for all life and is encouraged to be sacrificial and to treat others generously.

**Bikram Yoga:** a series of 26 asanas (postures) practised in a room that is 105 degrees in order to warm and stretch the muscles, ligaments and tendons and to detoxify the body through sweating.

**Hatha Yoga:** Emphasis is placed on the physical postures or exercise known as asanas, with the goal of balancing the opposites in one’s life.

**Jnana Yoga:** Emphasises deep contemplation. Practitioner seek Jnana or ‘wisdom’ through meditation. The goal of this form of yoga is to be one with God.

**Karma Yoga:** Based on the philosophy that “yesterday’s actions determine today’s circumstances”. Practitioner of Karma Yoga believe that by making today’s action positive, they hope they can improve tomorrow’s circumstances for both themselves as well as for others.

**Raja Yoga:** Known in India as ‘the royal (raj) road to reintegration’. The goal of this type of yoga is to blend the four layers of self: the body, the individual consciousness, the individual sub-consciousness, and the universal and infinite consciousness, Raja Yoga, being most concerned with the mind and spirit, places its emphasis on meditation.

**Working of Yoga**

Scientists don’t know exactly how yoga produces its healthful effects. Some say it works like other mind-body therapies to reduce stress, and others believe that yoga promotes the release of endorphins (natural pain killers and mood elevators) from the brain.

All of the branches of yoga previously mentioned incorporate three major techniques: breathing, exercise (asana or postures), and mediation. These three techniques have been shown to improve health in many ways. Patanjali has recommended eight stages of yoga discipline. They are Yama (restrains), (1) Niyama (observances), (3) Asana (Physical postures), (4) Pranayama (Breathing control), (5) Pratyahara (withdrawl of sense organs) (6) Dharana (contemplation), (7) Dhyana (Meditation) and (8) Samadhi (Attainment of
superconsciousness). Though Patanjali has described all these stages in great
detail, some modification is necessary to suit them to the modern society. The
results of these practices can be enhanced much more if one follows all the
recommended restraints and observances in everyday life. It may not always
be possible to follow them very strictly in everyday life, but one should try
one’s best to get better results.

Psychic Disciplinary Exercises:

1. **Yamas**: These are five in number
   - **Ahimsa** or non-violence including avoiding bodily or mental injury.
   - **Satya** or truthfulness in all the dealings of life.
   - **Asteya** or non-stealing of anything in life such as money, material,
     ideas, speeches or writings.
   - **Brahmacharya** or celibacy, which means refraining from all the
     activities related to sexual enjoyment directly or indirectly.
   - **Aparigraha** or non-possession i.e. keeping one’s requirement to the
     bare minimum.

2. **Niyamas**: Patanjali has prescribed five Niyamas.
   - **Shaucha** or cleanliness of body and mind.
   - **Santosha** or contentment one should always develop a habit of
     contentment even under adverse circumstances.
   - **Tapas** or austerity with regard to food, exercise, rest and recreation
     which will ultimately lead to the development of integrity in one’s
     characters.
   - **Svadhyaya** or intensive study in order to make life healthy, happy
     and peaceful. It is essential that we make an extensive study of the
     subjects.
   - **Ishvara Pranidhana** In order to attain peace it is always better to
     dedicate the fruits of our actions to God Almighty.

Psychosomatic Energising Exercises:

3. **Asana** refers to stable and easy posture. According to patanjali asana is
   one that brings steadiness and pleasentness to the individual. He accepted
   to select only those postures that are comfortable. However, it is an
   established fact that there are some asanas, which provide relaxation and
   help in the regularisation of glandular secretions. Amongst various yogic
   measures, the practice of Shavasana, a yogic relaxation posture, was
found to be of much use not only as a curative measure but also as a measure for preventing the development of hypertension. Datey of Bombay (Datey et al., 1969) and Chandra Patel of London (Patel, 1973a) used this method quite extensively with improvement in a significant number of hypertensive patients. They postulated that the relaxation postures possibly produce their beneficial results by reducing the adrenergic and noradrenergic activity in the brain stem and the peripheral organs and the tissues.

4. **Pranayam or Breathing**: Prana is that vital, which pervades the whole cosmos. It is in all things and it is the bioenergy that activates the human organism. It is closely related to the air we breathe, which is our main source of prana. However, air is only the vehicle, it is not Prana itself. Prana is the medium that links body and soul. It is the connecting force between consciousness and matter and can be regarded as a very subtle aspect of both matter and physical energy.

Yama means control. Thus, pranayama is a series of techniques that aim at stimulating and increasing the vital energy in the body by directing it to particular areas for special purposes, including healing. Pranayama ensures that the flow of vital energy in the body is free and unimpeded, helping to maintain good health. Pranayam has three parts.

1) Purak or drawing in of breath.
2) Kumbhak or retaining the breath.
3) Rechak or expelling the breath.

The time proportion is suggested as 1:4:2 for example if purak takes 10 sec, Kumbhak should take 40 sec and Rechak should take 20 second.

5. **Pratyahar** (Psychic sublimating exercise): Pratyahar is the withdrawal of mind from all the senses and practically it is the complete mastery over the senses. It is done by two ways, i.e. neither the sense should be affected by the stimulus nor the sense should disturb the mind by their sensation. It is not the incapacity of senses. They are healthy as usually. It is the complete mastery over the psyche of individual. Such process is really very difficult. It requires daily long practice, free association and analysis of learning.

Psychic Supernormal Attainment (Siddhi) Exercises:

6. **Dharana**: Steadiness of mind and concentration are the two main features of Dharana. One has to bind his mind to a restricted contour or frame
within which the object of attention is confined called steadiness and squeezing mind. Dharna can best be understood as allowing the attending process to flow only within a limited circle that is immediately related to the objects of attention.

7. **Dhayan (Meditation):** It is the unity of mind with the idea of some object. The preliminary steps for Dhyan should be taken with care. Quite and calm environment is essential so that the session of meditation may be held without disruption. As a method of process towards psychic relief or growth, they can be looked upon as two systems of exercises in attention and concentration. In one, the focus is on the body, it begins and ends with attention to the functions of a body organs like heart, lungs, skin-temperature etc, which are not ordinarily amenable to conscious control. The other system operates by fixing the attention on some external stimuli like light or sound and/or some internal stimuli like following a thought process effortlessly or building it up to a crescendo. The immediate aim of Dhayan is to reach a state of deep relaxation by shutting most channels of sensory stimuli and keeping open one single channel on which attention is focused.

8. **Samadhi:** This is the final stage of Inner yoga. Patanjali defines samadhi as “the very same stage of Dhyan reflecting in consciousness, the object alone, emptied of its form.”

**Yoga and Psychophysiological Disorders**

It has been stated that daily practice of yoga would help a person to maintain a perfect homeostasis of the body and mind throughout his life. In fact, the practices of Hatha Yoga and Meditation tends to bring about normalcy in our psychophysiological functions. It has been claimed that such persons would be less prone to psychosomatic imbalance resulting usually from stress and strain of life.

As we know that the main initiating factor in the development of psychophysiological disorders is the increased liberation of neurohumours like acetylcholine, catecholamines, and histamine by the excessively stimulated cerebral cortex. Therefore, it is understandable that if one can learn to restrain the cerebral cortex, especially its psychic centre, one can be free from the development of various psychosomatic disorders throughout one’s life. It is here that yoga can be of immense help to all in preventing the development of stress diseases, and thereby living a long happy and healthy life. In fact, yoga is defined as science of mental control. It not only helps one to control one’s
mental state, but also improves one’s personality and behaviour, if it is practised regularly from childhood.

Various studies lend support to the above discussion. Oken et al., (2006) found improvements in physical and quality-of-life measures among healthy elderly people in the yoga or exercise group compared to the waiting list control group. Manjunath and Telles (2005) also found that the practice of yoga significantly improves the length and quality of sleep in the elderly. Galantino et al., (2004) randomised 22 participants between the ages of 30 and 65 with chronic low back pain to either a yoga based intervention, or to waiting list. Potentially important trends showed improved balance and flexibility and decreased disability and depression for the yoga group awareness/learning. Woolery et al., (2004) results also suggest that yoga asanas could potentially be useful in the management of depression. More studies with larger groups and more complex study designs are necessary.

These yogic practices not only help in reversing the progress of these psychophysiological diseases but also improve the resistance of the body at the psychophysiological level. Such non-medical measures should be adopted to overcome the stressful situations and to maintain an alert mental state. This would largely avoid severe mental depression resulting from too much use of tranquilisers.

The famous sage Patanjali says that a few people in society are resistant by nature to every type of disorders of stress, a few others develop such resistance after birth by the prolonged use of some of the retroactive medicines, and most of the other people can develop such resistance only by the practice of various types of yoga. Postures (Asanas), breath holding exercise (pranayama) and meditation (dhyān) are the important ones for bringing the neurohumoral pattern to normalcy. Thus, if there is an excess of a neurohumour, it becomes less, and if these is less of other harmones they become increased, to come to the normal level. In addition, it also improves the functional efficiency of all the organs and tissues by improving their microcirculation. But the most important thing to remember in this context is that yogic practice can play a great role in the prevention of various diseases provided it is practised with all sincerity and in a regular manner.

Conclusion

As per survey and review of literature conducted by different investigators like Weiner (1977), Selye (1950), Udupa and Singh (1977), Patel (1973b), pointed out that yoga therapy is more effective in the present scenario. Most
of the cases indicate that 60% of the cases are cured, 25% cases relieved from their psychosomatic diseases and about 15% cases showed no effective results due to yoga therapy.

REFERENCES


