

Yoga Psychotherapy around the world

Dr. Ganesh Shankar

Head

Department of Human Consciousness and Yogic Science

University of Sagar

Sagar-470003 (M.P.) India

Throughout Yoga's long history, there have been many misconceptions which shrouded it in mystery until proper scientific research began in the beginning of 20th century. In India, people became aware of the need to revive old traditions and sciences which might otherwise die out and scientific research into Yoga was one of the areas which generated a lot of interest. Many western scholars too realized the utility of Yoga and made efforts to study its significance from scientific point of view. They made some longitudinal studies in this area and their research findings are available to us for further work in this area (Kuvalyananda,1925,1928;Behanan,K.T.,1937; Bagchi,B.K.& Wenger,M.A. 1957; Hirai. T,1960; de Vries,H.A.1961; Giri,C,1966; Wallace,R.K.1970; Joseph C and et al,1987; Meti, B.L. and et al, 1989; Joseph, S and et al,1993; Meti,B.L.1995). Swami Kuvalyananda reported sub-atmospheric pressure in the various internal cavities during Uddian Bandha and its extension of Nauli. He also took X rays to demonstrate the movements of the diaphragm during Uddiyana Bandha. A pupil of his, Behanana, undertook further research leading to a doctoral thesis of Yale University in 1937. He estimated the oxygen consumption during Pranayama practice and reported an increase during Ujjai, Bhastrika and Kapapbhati. He also brought different types of Pranayama on to kymographic record. The ability of Yogis to voluntarily stop the beating of the heart was considered- a fascinating feat, and aroused the interest of scientists in India and elsewhere. In 1936 an article by the French cardiologist, Brosse, reported studies on subjects of both Hatha and Raj Yoga, the former showing the more significant results. Bagchi and Wenger (1957) studied practitioners of RajYoga in India. They found a lower respiratory rate and raised G.S.R (Galvanic Skin Resistance) with no consistent alterations in heart rate or blood pressure during meditation. During Meditation, the EEG showed an increase in alpha wave amplitude and activity and in some of the Yogis there was a loss of the alpha blocking response to all external stimuli. Around 1960, Maharishi Mahesh Yogi introduced Transcendental Meditation to the world. This technique is neither a religion nor a way of life. It is a natural effortless technique, which aims at improving all aspects of life. Adapted from ancient Indian technique, it gained in popularity and has spread all over the world. In 1968, R.K.Wallace undertook an investigation of physiological effects of TM, for his doctoral thesis, entitled, "The physiological effects of TM: A proposed fourth major state of consciousness". In this as well as in later studies by him (Wallace et al,1971) the practice of TM was found to be associated with changes in the EEG. In some of the subjects during Meditation, there was an increase in alpha wave amplitude, associated with a slowing of the frequency. In some cases, there were brief periods of about 2.5. seconds during which theta waves predominated. There was also an increase in GSR, decrease in heart rate, decrease in oxygen consumption and carbondioxide elimination, along with a reduction in both rate and volume of respiration. Blood lactate levels were also reduced after Meditation. This led to TM being called a "Wakeful Hypometabolic State". The changes were interpreted a signs of a functional trophotropic state, chiefly mediated by increased parasympathetic and decreased sympathetic discharge, rather like other assimilatory processes such as sleep and digestion. Kasamatsu (1973) categorised the EEG changes in Zen meditation as four stages. The first is the appearance of alpha rhythm in spite of the eyes being open. In the second stage, there is an increase in amplitude of

persistent alpha frequency and finally, in the fourth stage the appearance of rhythmic theta train was observed. During the last 3-6 decades, the Hatha Yogic practices have been evaluated for their efficacy in the management of diabetes and found useful (Udupa & Singh, 1972; Malkote, 1973; Sahay, 1986; Gore, 1988).

One may wonder how Yoga can effect all these responses. The practice of Asanas may send a volley of nerve impulses from muscles and joints, spine and other receptors located on the surface as well as inside the viscera. It can influence the haemodynamic mechanism improving blood circulation to vital organs like brain, heart, lungs, liver, kidney, pancreas etc. it may also act through the neuro-endocrine axis. Scientists like Anand, B.K. (1961) strongly feel that Yogic practices may modulate the cerebral cortico-limbic system of the brain and strengthen the inhibitory components of the nervous system. More documentary evidences are required to consolidate these claims and assumptions. Whatever be the mechanism involved, it is established beyond doubt that regular practice of Yoga certainly has many beneficial effects on the human physiology, biochemistry and psychology.

It is true that Yoga is ancient. Infact, its origin is shrouded in antiquity. No one really knows when Yoga was first developed or who gave it to man. There are many historical conjectures which even suggest that the Gods themselves taught Yoga to man. The fact is that Yogic practices were unknown even in the Vedic times, and references to Yoga abound in the Vedas, in particular the Rig - Veda, and in the Upanishads and Bhagawad Gita. That they only prove how ancient Yoga is and consequently how much they evolved it, is the growth of Indian culture. Indian Rishis of old, recognised the unalterable fact of life, namely that man is not a mere body, not a mere mind, but a body-mind complex in which one reacts on the other end in which one can not be separated from each other. No modern educationist or thinker could possibly disagree with such a comprehensive view of man. Yoga even emphasizes that mind influences the body more than the body influences the mind. The knowledge of Yogic practices was handed down through the ages from generation to generation by word of mouth and by example through unbroken chain of devoted Guru- Chela relationship untill around 200 years before the Christian era or over 2000 years age, Patanjali, the founder of what is known as classic Yoga or Patanjala Yoga first systematised and codified the then existing knowledge of Yoga into 194 aphorism or sayings and gave it to the world the Yoga sutras.

The Yoga system of Patanjali which is also known as Raj Yoga, is a world view, a way of life and a set of practices for regulation of mind to achieve the highest goal of Yoga i.e. Kaivalya. The celebrated text, Yoga sutra of Patanjali virtually presents a psychological system. Gardner Murphy once remarked that the systematic development of Yoga by Patanjali "constitute one of the great psychological achievements of all times" (Murphy & Murphy, 1968).

Patanjali has prescribed an eight fold path for achieving the goal of Kaivalya.

Ashtanga Yoga involves: Yama (restraints), Niyama (discipline), Asana (body attitude/postures), Pranayama (breath regulation), Pratyhara (detachment of sensory activity from the external objects), Dharana (concentration), Dhyana (Yogic Meditation) and Samadhi (spiritual absorption). Patanjali describes the first five limbs as the external form of Yoga and that they are preparatory, the last three as internal and essential aspects. The foundations of Yoga practice lie in Abhyasa (practice) and Vairagya (detachment). The Yamas are : Ahimsa (non-injury), Satya (non-lying), Asteya (non-stealing), Brahmacharya (sexual abstinence) Aparigraha (non-possession). The Niyamas are : sauch (cleanliness), Santosh (contentment), Tapas (asceticism), Swadhyaya (self study) and Ishwarpranidhan (devotion to God). Asana is a body posture that is stable and comfortable. Patanjali devotes

only one verse to it. The important point about asana is that it gives the body stability reducing physical effort to a minimum which may be distraction to meditation. Pranayama is a discipline of respiration. Patanjali devotes only three verses to it. It is the arrest of the movement of inhalation and exhalation which is practised after mastering the asana. Pratyahara, the withdrawal senses from external objects is the final stage of the external Yoga. The core of Yoga practice lies in Dharana (concentration), Dhyana (Yogic meditation) and Samadhi (absorption). Concentration involves attention to a single object or place, external or internal, like a lamp, the space between the eye brows, the tip of the nose or thought (like God or mantra). The continuous concentration is called Ekagrata (on a single point). When the mind flows towards the object of concentration uninterruptedly and effortlessly, it is the stage of meditation when it happens for a prolonged period of time, it leads to Samadhi. Samadhi is a state of absorption in which the subject/object distinction is lost. The state of Samadhi is believed to be characterised by the comprehension of the true nature of reality which ultimately emancipates the individual. A variety of stages in Samadhi have been described by Patanjali. In modern times, the meditative practices like Trancendental Meditation (T.M. of Mahesh Yogi,1963), Benson,s technique (Benson,1975) and Carrington,s clinically standardized Meditation (Carrington,1977) among others are based on the system of Patanjali.

Hatha Yoga:

Techniques of Yoga have been practised for thousands of years mainly for the sake of the final goal of liberation from the cycle of rebirths and the pain associated with it. These techniques were intended to influence the mind more than the body. With the Hathayogis who flourished in comparatively later times in the history of Yoga (may be about the 15th century A.D.), there was greater emphasis on the body. Their ultimate aim was also the same namely, attainment of the state of Samadhi. But their means were more suited to the abilities of the common man. Gorksha Shataka of Gorakhnath (Briggs,1973) of 10th century A.D.; Gherands Samhita of 12th century (Vasu,1974), Hatha Yoga Pradipika of Swatmarama (Brahmanda,1989) of 15th century are three important texts of Hatha Yoga school. Hatha Yoga as a holistic system does not consists of mere Kriyas, Asanas, Pranayamas, Bandhas, Mudras and Meditation etc. but lays great stress on control of diet social attitude and personal habits so as to bring about beneficial changes in the whole of the metabolic process. It is truly a integrated approach, treating man as a whole (Kuvalyananda & Vinekar,1971).

Asana:

These are certain special pattern of postures that stabilizes the mind and body. Their aim is to establish proper rhythm in the neromuscular tonic impulses and to improve the general tone of the muscles. Asana, as a preventive medicine can be used for avoiding the causation of postural deformities like cervical spondylosis (by Bhujanga/ Dhanura/Matsya/ Ustrasana etc.), lordosis (Hala/Pawanmukta/ Paschimottan asana etc.). Asanas can be used for release of physical stress resulted from day-today negative emotions of behavioural pattern. This will help to avoid psychosomatic or psychological disorders like hypertension, gastric acidity, depression neurosis etc. The regular correct practice of Asanas also help to prevent constipation, arthritis, asthma, diabetes, obesity etc.

Pranayama :

These are practices to control respiratory impulses which form one of the main channels of the flow of the autonomic nerve currents. Pranayama have important role in prevention of the diseases. The various diseases caused by disturbed homeostatic state of

autonomic nervous system like obesity, hypertension, hyperthyroidism, diabetes, gastric acidity etc. can be prevented by Nadishodhan Pranayama, Bhastrika Pranayama etc. The imbalanced state of Doshas caused Suryabhedan and Bhastrika Pranayamas. The intensity of psychosomatic ailments can be prevented by restoring the normal rhythmic breathing.

Bandhas and Mudras :

In these practices one tries to consciously control certain semi-voluntary and involuntary muscles in the body. These influence the activity of the autonomic nervous system which functions as a whole. These tone up the internal organs, decongest them and stimulate their healthy functioning.

Shatakarma:

These are purificatory processes usually classified into six divisions, each of which consists of many sub-sections. They bring in control over the autonomic nervous system. Neti is an important means to develop resistance against environmental offending factors like temperature, dust, pollen grains, humidity and other particles to prevent the respiratory disorder, for example, the Neti in the evening by the labourer working at flour mills, cotton textiles mills mines, dusty roads, harvesting rains in the fields, libraries etc. can wash out the inhaled particles and thereby preventing their decay and decomposition in nasal passage and Pharynx for viral and bacterial infection. The use of neti helps also in development of resistance against seasonal change by using water of different temperature in Neti lota during the period of change of season as it would increase the adaptability of inner lining of nasal passage for vaso-constriction and dilution in response to temperature variation of environment. Similarly, one can prevent digestive disorders by the use of Shankhprakhshalana at time of start of new season, Basti once in a month, daily practice of Nauli etc. in case of dyspepsia, the Vaman Dhouti/Vyaghra Dhouti will be useful to prevent intensity of digestive disorder. The regular practice of Tratak and Kapalbhata can be used to prevent the eye and respiratory disorders respectively.

Meditation :

It involves mental practice from initial withdrawal of the senses to the complete oblivion of the external environment. There are innumerable states and practices which could be included under this head. Meditation is a great tranquilliser. The regular practice of meditation by any of the various techniques, the inherent defence mechanism to fight with external physical, mental, emotional and environmental factors for causation of diseases can be developed. The meditation provides physical and mental resting pause to restore and revitalize the bodily organs for their normal functioning. Meditation practices have been widely used to counteract the day-today stress and strains of modern life. Therefore, the Meditation can be used for prevention of psychological and psychosomatic disorders like depression anxiety, neurosis, hypertension, asthma, arthritis, angina etc.

Swara Yogic And Dietary Norms:

Various norms of SwaraYoga and Yoga dietetics also helps in prevention of diseases. Some important norms are :

The moderation of diet, intake of meal during Surya Swara, observance of sequence • while taking food; viz. Sweet articles taken firstly, sour and saline in middle and pungent and astringent lastly; helps in digestion avoids causation of digestive disorder. Taking water after ½ to ¾ hrs of meals, avoiding sweet dishes at the end of meals, taking hot potency articles during Chandra Swara and cold potency articles in Surya Swara also prevents the causation of disease in respect of digestive disorders, respiratory disorders etc.

Sleeping by keeping the head in geographical south direction and lying on left side of • the body helps to maintain health and prevents the causation of cardiovascular ailments especially.

Taking bath during the Surya Swara also prevents the causation common colds, • digestive disorders arthritis etc.

Avoiding the intake of betel during Surya Swara prevents the diseases of bile's and pitta Doshas like hypertension, acidity etc.

Conclusion:

Indian tradition, Scientific research and clinical experience all point out that Yoga practices are probably the most important and effective self-help tools available to man. It appears that the Indian practitioners of psychotherapy, who have been looking for a conceptual framework and a set of procedures which are not alien but intimate to the Indian mind would definitely find an alternative in Yoga. The importance of Yoga is coming into light in the west in the comparative analysis of different systems by psychologists to find out meaningful answers to some problems of life. We seem to be very close to a behaviour technology and self reliance in the domain of Yoga. The main principle of Yoga therapy is that it seems to establish the homeostasis in the organism as a whole. As yet, however, it has not been established exactly how this is accomplished. But when proper investigation along scientific lines has been set up in several places throughout the world, Yoga therapy will be properly recognized as a valid form of treatment. The doors of Yoga therapy have already been knocked and opened up. Only earnest research and therapeutic pursuits by scientists and clinicians may perfect the ages old Yoga and make it more and more refined and suitable to people all over the world.

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