

Yoga and Mental Health: A Review

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Yoga emphasizes on maintaining a healthy lifestyle where the focus is on various energy channels in the mind and the body that may be implicated in health and illness. The practice of Yoga dates back to the pre-Vedic times and over the years many new forms and branches of Yoga have evolved. However, recently it has been recognized as an adjunctive treatment for management of psychiatric disorders. Though, many therapy modules based on Yoga do not always meet the contemporary criteria of evidence based practice, Yoga is still considered a useful adjunctive to traditional psychiatric treatment as it is cost effective, easily applicable, and unlike pharmacological treatment, has no side effects. Practice of Yoga should thus, be encouraged to promote health and well-being.

Keywords: Yoga, Therapy, Psychiatric disorders, Health.

The word 'Yoga' is derived from the Sanskrit root 'yuja' as also from the root 'yujir' meaning 'to unite' or 'to integrate'. This concept is interpreted by many contemporary scholars as the integration of physical, mental, intellectual and spiritual aspects of human personality and the integration or adjustment of an individual with the environment or the society.

From ancient Hindu texts, Buddhist and Jain philosophies, to modern secular life, applicability of Yoga have stood the test of time. Cultural similarities between modern Hinduism and Mehrgarh indicate that Yoga grew out of Stone Age-Shamanism, a Neolithic settlement, aimed at healing community members (Feuerstein & Wilber, 2002). According to Frawley (1990), the oldest text on Yoga is the Rig Veda. Here, the emphasis was upon self-transcendence rather than acquisition of magical powers. Also, chastity remained central to the practice of Yoga (Feuerstein, 2003). The teachings of the Upanishads brought in its wake the era of Pre-Classical Yoga. Yoga surfaces as 'Shadanya Yoga' - the uniting discipline of the six limbs (Shad-anga) in the 'Maitrayaniya' Upanishad. It includes breath control or 'pranayama', sensory inhibition or 'pratyahara', concentration or 'dharana', meditation or 'dhyana', examination or 'tarka', ecstasy or 'samadhi'. Patanjali's 'Yoga-Sutras' define the Classical Yoga. The eight

limbs or 'Ashtang Yoga' of classical Yoga are 'yama' or restraint, 'niyama' or tolerance as well as study and observing purity, 'asana' or physical postures/exercises, 'pranayama', 'pratyahara', 'dharana', 'dhyana' and 'samadhi'. Patanjali advocates studying the sacred scriptures as part of the Yoga practice, which became classical Yoga's distinct feature (Sarasvati, 1973). The different branches of Yoga and many holistic schools for Yoga evolved in the Post-Classical Yoga, which can be best defined as an appreciation of the present moment, accepting the reality and, living in the moment (Hayes & Chase, 2010).

Types of Yoga

Four different paths have been laid down in Yoga according to tastes, temperaments, predilections and bent of mind. Followers of these paths have the common goal of merging with the Supreme Reality. 'Jnana Yoga' is the path of wisdom. As first mentioned in the Bhagavad Gita (Bhavanani, 2011), it embodies the knowledge of the eternal, omnipresent, imperishable and omniscient self. 'Bhakti Yoga' is the path of exclusive devotion to God. It teaches how to channelize and utilize love, how to give it a new object, and how to obtain spiritual felicity. 'Karma Yoga' is the Yoga of self-surrendered action. It is selfless service to

humanity, which purifies the heart and prepares both the heart and the mind for the reception of divine light or the attainment of knowledge of the self (Mulla & Krishnan, 2006). 'Raja Yoga' lays down a practical method for reaching the truth and is embodied in Patanjali's eight-fold path. The aim is to gain supreme knowledge through control and mastery of the mind by shutting out worldly pleasures.

Combining techniques of different types of Yoga, there are many forms and techniques of practicing Yoga existent today. 'Sudarshan Kriya Yoga' (SKY) involves cyclical controlled breathing practice with roots in traditional Yoga that provides relief for depression. It is taught by the nonprofit Art of Living Foundation. 'Kundalini Yoga' focuses on the psychic energy points ('chakras') of the body to stimulate spiritual energy. It is based on sustained, relaxation-focused postures along with chanting, controlled breathing, hand gestures and meditation (Shannahoff-Khalsa, 2004). 'Transcendental meditation' (TM) was popularized by Maharishi Mahesh Yogi in the 1960's. It is a form of mental training that aims to improve an individual's core psychological capacities, such as attention and emotional self-regulation. 'Sahaj Yoga' literally means 'natural union with the divine', in which meditation is focused on the 'Sahasrara' chakra, which is located on the top of the head (Sharma, Das, Mondal, Goswami, & Gandhi, 2006).

Yogic Concept of Health And Illness

The dimension of spiritual health has been suggested by the World Health Organization (WHO) in recent times. Yoga and Indian systems of medicine, since ancient times, have highlighted the qualitative aspect of health. Yoga deems as a multifold universal nature rather than a physical body (Bhavanani, 2013). Yoga and Ayurveda believe that the human body is made up of seven substances. Health pertains to the harmony of major and minor energies of physiological function, stability of subtle energy channels and appropriate functioning of all major energy centres that may be correlated to the psycho-neuro-immuno-endocrine axis. The 'tridoshas' i.e. 'vatta', 'pitta' and 'kapha' are considered responsible for movement,

metabolism and lubrication, respectively; the 'pancha mahabhutas' (elements of the manifest universe) as well as 'triguna' (inherent qualities of nature) are implicated in health and illness. Yoga places great importance on a healthy lifestyle. The main components of which are 'Achara' i.e. practice of exercise on a regular basis, 'Vichara' i.e. moral restraints and ethical observances that lead to right thoughts and attitude providing a balanced state of mind, 'Ahara' is taking well balanced intake of 'satvic' diet, prepared and served with love and affection and lastly, 'Vihara' which includes proper relaxation.

From the Yogic viewpoint, disease may appear to progress through distinct phases (Bhavanani, 2011). These are The Psychic Phase is marked by mild but, persistent psychological and behavioral symptoms of stress such as irritability and disturbed sleep. The Psychosomatic Phase begins if stress continues and is characterized by occasional hypertension, tremors and other generalized physiological symptoms. Yoga therapy, in itself, is effective in psychic and psychosomatic phases. The Somatic Phase marks the beginning of what may be called the diseased state characterized by disturbed function of the organs. Lastly the Organic Phase is marked by pathological changes such as an ulcerated stomach or chronic hypertension. Full manifestation of diseased state occurs in this phase.

Yoga has its own system of diagnosis and health evaluation as a method of self-analysis or 'swadhyaya'. 'Trigunas' are the three 'gunas' i.e. 'tamasic' (dull and lazy) 'rajasic' (overactive) and 'sattvic' (calm and composed). Identification of the 'trigunic' nature in a patient should be done before treatment. 'Tridoshas' are 'vatta', 'pitta' and 'kapha'. Without evaluating patients according to their 'dosha', modern medicine may dry up the 'kapha', increasing chemical poisoning and producing pressure conditions for all chronic disorders. 'Trivasana' represents personal propensities that bind us to the cycle of birth and rebirth. These are the 'Lokhasana' (position in life), 'jnana vasana' (level of education and knowledge) and 'deha vasana' (attachments to the body). 'Prana' is improper

functioning of the various 'prana vayu' leading to various conditions. For example, 'samana vayu' is the imperfections that may cause indigestion; excretory function is affected in 'apana vayu' malfunction; disease is the manifestation of malfunction of 'prana' while its loss is death. 'Chetana' is the thought and according to yogic traditions, the cause of all body action. This is the principle behind the yogic concept of psychosomatics called 'adhi-vyadhi'. 'Vacha' is the emphasis on refined speech instead of crude and rough speech because the response one gets depends on one's speech. 'Ahara' refers to good dietary habits as food has an important role in health or sickness. Junk food must be curtailed along with a preference for a vegetarian diet. 'Viparita Buddhi' is the misuse of tobacco, alcohol and illicit drugs, habits like overeating or under eating, over exercising and under exercising as well as sexual abuses opening doors to ill health. 'Jiva Vritti' is the periodicity of nasal cycle; breaths per minute, deep or shallow breath, heart beat and blood pressure, regularity of passing urine and emptying of bowels implicated in health and illness. 'Sankalpa' is the desire to be well.

In Yoga, aspirations of the individual are considered important and they need to be examined.

Yoga as Therapy

Yoga with its allied techniques has become quite popular. A number of studies have indicated that Yoga-based interventions are successful in enhancing various aspects of wellbeing (Jadhav & Havalappanavar, 2009). The efficacy of Yoga in various psychiatric disorders and conditions is as follows.

Depression: Studies have shown the utility of SKY (Brown & Gerbarg, 2005) and that meditation helps in improving psychiatric disorders. Mindfulness, a variant of meditation, has been extensively researched (Gangadhar & Varambally, 2012) and found to be effective in treating depression ranging from mild depressive symptoms to major depressive disorder (MDD).

Anxiety disorders: A recent comprehensive review (da Silva, Ravindran, & Ravindran, 2009)

found that Yoga may be superior to medication for a subgroup of patients with anxiety disorders. However, evidence for benefits of Yoga in specific anxiety disorders such as obsessive compulsive disorder (OCD) is only preliminary. Yoga therapy has shown good safety and tolerability in the short-term. Various Yoga practices such as 'asanas', meditation, 'pranayama', 'savasana', TM are now recognised as relaxation techniques comparable to many behavioural modification techniques like biofeedback and progressive muscular relaxation in different types of anxiety.

Schizophrenia: Yoga therapy can be a useful add-on treatment in patients with schizophrenia for reducing general psychopathology, positive and negative symptoms, and increase health-related quality of life (Gangadhar & Varambally, 2012). 'Asanas' and 'pranayama' but not meditative practices are found useful, since meditation has been shown to worsen or provoke psychosis in patients with psychotic illnesses.

Disorders of childhood: Reviews of multiple studies suggest that Yoga may be effective as a complementary or concomitant treatment in the overall management plan of dealing with Attention Deficit Hyperactivity Disorder (ADHD) (Haffner, Roos, Goldstein, Parzer, & Resch, 2006; Jensen & Kenny, 2004). Yoga has been tried out as an adjunct in education of children with learning disabilities, mental retardation and attention deficit hyper activity syndrome resulting in improvement of the locomotor skills and attention span (Uma, Nagendra, Nagarathna, Vaidehi, & Seethalakshmi, 1989).

Stress: It has been well documented in medical research for decades that Yoga and meditation, two practices related to mindfulness, are considered as means of activating the body's natural mechanisms for managing stress (Goyal, 2014). Sivapriya, Malani, & Thirumeni (2010) suggested that 'Nadi Shodhana Pranayama' rapidly alters cardiopulmonary responses and improves simple problem solving. Pramanik et al. (2009) noted that a slow pace bhastrika pranayama (respiratory rate 6/minutes) exercise improves the autonomic nervous system through enhanced activation of the parasympathetic system that helps in managing stress.

Substance abuse: Yoga as a system of rejuvenation becomes a natural method of achieving abstinence in a relatively short period of time (Sharma & Shukla, 1988). In a three weeks study of hospitalized alcohol dependent patients, those treated with SKY plus standard treatment had greater reductions in depression, anxiety, and cortisol levels than did patients who were given the standard treatment and rehabilitation, alone (Vedamurthachar, Janakiramaiah, Hedge, & Subukrishna, 2002).

Neurobiological Effects of Yoga

The biological basis of action underlying the changes accompanied by practice of Yoga remains unclear. Increase in P300 amplitude and reduction in levels of serum cortisol and Adrenocorticotrophic hormone (ACTH) has been demonstrated by SKY (Vedamurthachar et al., 2006), which correlates with symptom improvement in patients with psychiatric disorders. Gamma Amino Butyric Acid (GABA) levels have been shown to decrease in mood and anxiety disorders. An acute session of Yoga has been shown to increase brain levels of GABA in healthy subjects (Streeter et al., 2007). Functional imaging (fMRI) studies have demonstrated deactivation of limbic brain regions in healthy volunteers while chanting OM (used in Yoga and other spiritual practices) indicating possible effects of Yoga on emotion regulation (Kalyani et al., 2011). Yoga has been found to increase oxytocin in patients with schizophrenia, which is paralleled by improvement in emotion recognition (Jayaram et al., 2012). In dysthymic patients, out-patient treatment with SKY as a sole treatment revealed blood elevation of plasma prolactin and stable cortisol after the very first SKY session, which may be crucial in producing an effective antidepressant response. Autogenous sub-convulsive seizure would be observed while practicing SKY is hypothesized to act in a manner that is similar to the induced seizure used in electro-convulsive therapy (ECT) against depression (Janakiramaiah, et al., 1998). However, further research is needed to confirm and extend these preliminary findings.

Current Scenario

Popularity of Yoga in the west can be attributed to many gurus including Swami

Vivekananda and their apostolic works. Schools of postural Yoga in United Kingdom (U.K.) have gone through the developmental phases of popularization (1950's to mid-1970), consolidation (mid 1970's to late 1980's) and acculturation (late 1980's to date) (Singleton, 2008). B.K.S. Iyengar disseminated Iyengar Yoga in Britain in 1954 whereas British Wheel of Yoga (BWY) got established in 1962. Since early 1990s, Pattabhi Jois' 'Astanga Yoga' has also gained popularity. It is estimated that about 15 million Americans now practice 'Hatha Yoga' (Corliss, 2001) and the figure is rising in Australia as well. While Yoga, in ancient Indian philosophy, is deeply rooted in spirituality, including self-discipline, detachment from the senses, and meditation; Western Yoga is, in large, restricted to the practice of 'asanas'. In India, Yoga schools such as the popular Bihar school of Yoga, Sivananda ashrams, Himalyan Iyengar Yoga Centre to name a few conduct Yoga courses for teacher training, lifestyle and well-being, as well as therapy. In government-run schools like the Kendriya Vidyalayas and Navodaya Vidyalayas, Yoga is an optional subject under the co-scholastic activity of physical education. Yoga Federation of India has urged the Government of India to include Yoga in the list of sports so that those participating in it could be benefitted. United Nations' decision to declare June 21st as 'International Day of Yoga' accords Yoga a special status.

Yoga as Therapy: An Evaluation

Yoga as a possible treatment option for psychiatric disorders is recognized only recently by mental health professionals. Yoga is recognized as an alternative and/or complementary treatment for patients with psychiatric disorders. Yoga is cost-effective. Also, the number of Yoga therapists in India is more than the number of mental health professionals, which makes it more readily available. It is considered more as an exercise or a practice of lifestyle management rather than a therapy, which makes it more acceptable among people, especially among those, who have stigma regarding use of psychotherapy. Lastly, Yoga does not seem to have any side-effects as in the

case of psychiatric medications (Jagannathan, Thirthalli, Nagendra, & Gangadhar, 2014).

Yoga has not been an active component of psychiatric management as there is a lack of substantial scientific evidence for its efficacy, in comparison to the existing evidence based psychotherapies such as cognitive behaviour therapies (CBT's), in major mental disorders. This is because there are very few studies on Yoga, which meet the contemporary criteria for evidence-based medicine (Rohini, Pandey, Janakiramaiah, Gangadhar, & Vedamurthachar, 2000). Also, Yoga is time consuming and an ideal module or guideline on the minimum effective dose of Yoga is nonexistent. Practice of Yoga may be detrimental for people with disability, pregnancy or co-morbid medical conditions and may require tailor-made practice under the guidance of a trained practitioner. In acutely psychotic and actively suicidal patients, practice of Yoga is contra-indicated. Two important reasons behind the utility of Yoga as therapy is the availability of very few centres that offer Yoga specific to psychiatric disorders and the logistic difficulties in visiting tertiary care centres regularly (Baspure et al., 2012).

Conclusion and Future Directions

Yoga is a vast subject to discuss as there are many techniques that are available for maintaining a healthy lifestyle as well as for curative purposes. The practice of Yoga is now very common for all age groups both in western countries as well as in developing countries, like India. With many advantages such as cost-effectiveness and absence of side effects; it is recommended that Yoga interventions could ideally be evidence-based, research projects could be multi-disciplinary and preferably consisting of both quantitative and qualitative research methodologies for development of the field of Yoga research. Pre-schools, schools and community centres should offer Yoga classes to children and young people, thereby encouraging learning and practice from an early age. It is also important to develop a theoretical framework for understanding potential effects of Yoga. Finally, it is essential to develop policies to encourage the practice of Yoga in schools, workplaces and the community, at large.

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