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## Yoga and Mental Health: An Underexplored Relationship

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### ABSTRACT

Yoga is a way of life comprising mental, physical and spiritual attributes to achieve holism, meaningfulness, excellence and completeness in all walks of human functioning. It entails energizing and fuelling processes which lead an individual to make a balance in his/her personality and incite him/her to achieve greatest social, psychological, spiritual and moral coordination juxtaposed with most creative and productive functioning at individual, family, community, societal, national, international and cosmic levels. The present paper attempts to explicate and assess the role of yoga and yogic practices in achieving, preserving and promoting mental health. The curative, preventive and promotive role of yoga and yogic practices in mental health and human functioning have been discussed and substantiated. The major psychotherapeutic practices and techniques based on yoga and yogic practices have been discussed in length. In addition, the mechanisms through which the yoga and yogic practices exert their influences on mental health and human functioning have also been given sufficient place based on scientific findings of psychological science. The conclusions of this endeavor demonstrate that the real

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value and place of the yoga and yogic practices have to be conveyed to the people of the world. The time has come to make aware the world about its real meaning and value and also use this platform to decipher the traditional Indian knowledge before the world civilizations to mitigate all sorts of problems facing humanity of the world today. The depth and vitality of the yoga and yogic practices and the multiple value of this interdisciplinary branch of knowledge is underexplored as per the scientific standards. It necessitates eclectic global efforts to situate this priceless Indian traditional knowledge at the place where it ought to be. The conclusions of this paper would be of great value for the academicians, policy makers, administrators, students, and the public at large. Owing to its significance in all aspects human development and functioning of the whole world, The United Nations has rightly declared June 21 of each year as International Yoga Day since last year. This is really a recognition and honour to the great Indian civilizations and its people.

**Keywords:** *Yoga, Mental Health, Psychotherapy, Human development*

**T**he Indian tradition, culture and civilization have long historical background and diversified schools of thoughts characterized by logical coherence, emphasis on spirituality, meaningfulness and wholeness encompassing material, social, cultural, spiritual and religious aspects of human existence and functioning juxtaposed with deep philosophical foundations. It encompasses almost all aspects of life with sufficient and acceptable evidences with suitable arguments culminating India and Indian civilization as leader of the world. Many traditions, knowledge, concepts and ways of life of Indian society have been acceptably transported to other civilizations of the world with great reverence and admiration. The yoga and yogic practices are among one of the most popular contribution which has galvanized the whole world. Owing to the efficacy and usefulness of yoga and yogic practices for the people irrespective of socio-cultural differences, the United Nations (UNO) has declared June 21 of each year as

International Yoga Day which evinces a recognition and honour to the great Indian civilizations and its people.

The Yoga and yogic practices are relevant and effective today not only to treat physical and mental disorders of various sorts but also to maintain, preserve and promote a healthy, happy and successful life. This is even more useful in the wake of increasing physical and mental health problems as a consequence of adopting and practicing of material values, stiff competition, restructuring of family, social and community relations and information overload caused by recent advances in computer technology and mass media.

Yoga is a way of life comprising mental, physical and spiritual attributes to achieve holism, meaningfulness, excellence and completeness in all walks of human functioning. It entails energizing and fuelling processes which lead an individual to make a balance in his/her personality and incite him/her to achieve greatest social, psychological, spiritual and moral coordination juxtaposed with most creative and productive functioning at individual, family, community, societal, national, international and cosmic levels. It has proven itself in achieving, preserving and promoting mental health. Its curative, preventive and promotive roles in mental health and human functioning have been well understood. There are many psychotherapeutic practices and techniques which are based on philosophical principles of yoga. There are four branches of yoga: Karma Yoga- action, Bhakti Yoga- devotion, Jnana Yoga- Self-study and Raja Yoga- will-power. The Raja Yoga proposes eight-limbed path with their psychological correlates. They are: Yamas -Behavior-interactions, Niyamas-Behavior-individual, Asana-Posture, Pranayama-Bearthing, Pratyahara-Withdrawal of senses, Dharana-Concentration, Dhyana-Effortless now and Samadhi-Complete absorption. These are so intertwined and inter-related that without one the other is irrelevant and ineffective.

People suffering with mental health problems such as depression, anxiety and stress frequently go for self-help treatments before seeking treatment from a medical or mental health professional (Oliphant, 2009) to maximize financial savings, to refrain from

consuming synthetic medications, or avoid negative stigmatization as well as in pursuance of their desire for more holistic treatment. These come under complementary alternative medicine which are applied to treat many sorts of mental and physical illnesses (Barnes, Bloom, & Nahin, 2008; Faass, 2006). It refers to a group of diverse medical and health care systems, practices and products that are not generally considered part of conventional medicine (National Center for Complementary and Alternative Medicine (NCCAM), 2010). Yoga and yogic practices come under the mind-body interventions category which emphasizes the interactions among the brain, mind, body and behavior with the intent to use the mind to affect physical functioning and promote health (NCCAM, 2010). These practices based on Yoga are employed to treat various mental health disorders, including anxiety and depression (Gerbarg & Brown, 2007). It has been argued that yoga based therapies are effective and used a set of psychotherapy but the mechanisms involved in the healing process are not understood (Douglass, 2009).

It has been demonstrated that the real value and place of the yoga and yogic practices have to be conveyed to the people of the world to make it popular and useful. The current experiences of humanity make it evident that the time has come to make aware the world about its real meaning and value of yoga and yogic practices to translate the traditional Indian knowledge before the world civilizations having capability to alleviate all sorts of problems facing humanity of the world today. The depth and vitality of the yoga and yogic practices and the multiple value of this interdisciplinary branch of knowledge is underexplored according to the scientific standards. The mental health professionals may benefit from learning what makes yoga effective and why and how to incorporate their learning into their practice with clients. By understanding the relationship between yoga and physiological functioning, mental health professionals may appreciate the benefits of yoga consequent upon which they can offer a more comprehensive and useful therapeutic treatment.

## **YOGA AND MENTAL HEALTH**

According to World Health Organization (WHO, 2014), mental health is not just the absence of mental illness. It is defined as a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community. According to Indian Philosophy, Yogas is '*Chitta Vritti Nirodhah*'-A technique to quiet the mind or the restraint of the modification of the mind-stuff is yoga (Patanjali, 1978/1999). There are many benefits of Yoga. They can be classified as physical benefits, mental benefits and spiritual benefits. The physical Benefits of Yoga are to create a toned, flexible, and strong body, to improve posture, to improve energy level, to help maintain a balanced metabolism, to enhance functioning of respiratory, digestive, endocrine, reproductive and elimination systems, to reduce blood pressure, to improve efficiency of lungs, to enhance sleep, to promote cardiovascular and circulatory health, to relieve pain, to improve athletic performance and to improves balance. The major psychological benefits of Yoga are to calm the mind, to attune people to the environment, to enhance concentration and mental clarity, to reduce stress and anxiety, to encourage positive thoughts and self-acceptance and to promote flexibility followed by the spiritual benefits in which the awakening the spirit, building of healthy spiritual awareness, promotion of interdependence between mind, body, and spirit, enhancing the concept of oneness of all things and connecting personal energy to divine energy are incorporated.

## **THE MECHANISMS OF RELATIONSHIP**

The yoga and yogic practices are comprehensive in nature which involves psychological, biological and spiritual mechanisms and characterized by a new and promising approach with no negative side effects and proven scientific and practical implications covering all people. The researchers have argued that Yogic practices induce brain changes resulting in greater activation in left than right prefrontal cortex (Davidson et al., 2003). Some studies have demonstrated that yoga based exercises are responsible for formation of new neural

pathways (Kreiman, Koch, & Fried, 2000). In their study, Lazar et al. (2005) and Lazar (2006) have found that yogic practices affect resonance circuitry which increases thickness in medial prefrontal cortex and insula, especially right side resulting in empathy, interoception and attunement to self and others, logical and intuitive processing (Kreiman, Koch & Fried, 2000). These practices also lead to decreased vulnerability to stress in healthy exercising adults (Baldwin, 1999). In their study on 113 psychiatric patients, Lavey et al. (2005) have found that yogic practices help regulate mood. In another study, these practices have been found to benefit emotionally distressed women (Michaelson et al., 2005).

The Yoga and yogic practices have also been found to benefit the patients with cardiovascular disease associated with insulin resistance in diabetes (Innes et al, 2005), sleep (Cohen et al., 2004, Khalsa, 2004), back pain (Sherman et al., 2005, Williams et al., 2005), migraines (John et al., 2007). In a clinical sample, these practices were associated with alleviating the problems of depression and anxiety by increasing GABA levels (Streeter et al., 2007) and facilitated the individuals in stress response by affecting Amygdala (Reivich et al., 2002). Yoga and yogic practices have also been reported to affect the functioning of Hypothalamus and stress response which are responsible for regulating blood pressure, blood sugar, heart rate, respiration, By having an impact on relaxation response, yogic practices have an influence on anterior cingulate cortex and hippocampus which facilitate good decision-making, empathy, emotion, memory. It has been reported that yoga and yogic practices induce physical strength, increased flexibility and reduced physical tension (Khalsa et al., 2009). In another study, these practices have been shown beneficial emotional, psychological, behavioral, and biological effects (Shapiro et al., 2005) and significantly increased feeling of well-being (Dey et al., 2003). Yoga also produces change in the neurophysiology of the body (Douglass, 2009).

There is a strong consensus that Yoga and yogic practices have positive impacts on the human functioning and performance. The mechanisms through which these practices exert their influence are

many. It is postulated that yoga is effective because it positively alters brain neurochemistry (Streeter et al., 2007). It “counteract[s] stress and reduce[s] autonomic arousal” (Khalsa, 2004) of the autonomic nervous system (ANS) including the sympathetic nervous system (Ross & Thomas, 2010). Researchers examining the breath work have reported that regular practicing of Yoga increases heart rate variability (Khattab, Khattab, Ortak, Richardt, & Bonnemeier, 2007), decreases blood pressure levels (Harinath et al., 2004) and decreases respiratory rates (Raghuraj & Telles, 2008). It also helps the sympathetic and the parasympathetic nervous systems to function effectively in response to stress instead of becoming hypo-reactive or hyper-reactive (Brown & Gerbarg, 2005).

There is another hypothesis which argues that yogic practices have regulatory effects on the release of various neurotransmitters. Melatonin is believed to regulate mood and sleep patterns (Douglass, 2009). In a study of Harinath et al. (2004), researchers found that participants showed increased melatonin levels after practicing yoga. Serotonin is also believed to improve mood states (Douglass, 2009). In another study of Davies et al. (2006), it was reported that serotonin regulates both psychological and cardiovascular responses to stress in people with anxiety. Lower GABA levels have been found in people with depression (Brambilla, Perez, Barale, Schettini, & Soares, 2003) and anxiety (Lydiard, 2003). Streeter et al. (2007) speculated that the physical postures of yoga increases GABA activity levels in the brain, thus decreasing anxiety and depressive symptoms.

The researchers have also proposed some psychological mechanisms through which yoga and yogic practices exert their influence on human wellness. The self-perception theory or facial feedback hypothesis (Laird, 1974; Schnall & Laird, 2003) argues that voluntary changes in facial expression and motor behaviours also result in consonant psychological changes. The yoga based therapies lead to increased self-awareness, positive self-image, self-confidence, concentration, potentiality, productivity, social skills and relationships, emotional competency, resilience, sleep regularity and spirituality. It helps in de-conditioning and re-patterning of human behaviours. It

increases acceptance and helps in re-patterning of behaviours. For example, Kriya Yoga is an intense effort which is directed by the discriminative faculty, intellect and helps to orient towards clear seeing and emphasizes present moment awareness and self study. It enhances acceptance and help reducing behavior that is harmful to self and others.

The yoga and yogic practices enhance the ability to override habitual tendencies resulting into increased freedom in any given situation. The effectiveness of Yoga and yogic practices relies on the way they are incorporated and practiced by the individuals. These are practiced both at body and mind levels and enhance mindfulness and peace of mind. Yoga is a good source for Positive Psychology which advocates for positive interventions to broaden the views and build the capabilities inherent in all human beings. It will create atmosphere to provide context for de-contextualized practice.

### **CONCLUSIONS AND FUTURE DIRECTIONS OF RESEARCH**

Many concepts have been proposed by the psychologists. Aristotle (1985) had talked about- eudaimonia whereas being cognition vs. deficit-motivated cognition have been focused by Maslow (1968/1999). The healthy-mindedness (James, 1892, 1897), learned optimism and optimistic explanatory style (Seligman, 2002), human flow (Csikszentimihalyi, 1997) and Broaden and Build theory (Frederickson, 1998) are some of the constructs in psychology similar to ones proposed by the philosophers of yoga. Thus, Yoga is a practice of recognizing and re-educating habitual patterns of thinking by cultivating wholesome thoughts. It may help regain balance, flexibility, strength, focus, relaxation, awareness of patterns, where stuck, start to become un-stuck and conviction with experience. These discussions make it evident that the yoga and yogic practices have sufficient capacity to help maintain, improve, cultivate and nurture health and happiness in the lives of individuals, societies and communities. It is also evident that Yoga as a psychotherapeutic technique has been applied to only a limited number of mental disorders such as Schizophrenia, anxiety and depression (Khalsa,

2013). The mechanisms through which yoga plays a role in the treatment of different mental disorders is yet to be known and established, although its effectiveness is doubtless. Yoga practices can have a place in the healthcare system as a treatment for a variety of psychiatric conditions, at least as an adjunctive if not as a primary therapy (Khalsa, 2013). It will be logical to conclude that the relationship of mental health and yoga has been underexplored and the future research must take these issues in more rigorous and scientific manner. These conclusions would be of great value for the academicians, policy makers, administrators, students and the public at large. It carries great significance for all aspects of human development, functioning and performance.

### *Conflict of Interest*

The author has no conflict of interest with anyone.

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## Yoga and Mental Health: An Underexplored Relationship

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