



EFFECTS OF YOGA AND PRANAYAM ON PSYCHOLOGICAL DISORDERS: A REVIEW

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ABSTRACT

The apparent stress of time-pressures related to modern life in nations has kept public interest in how lifestyles can be balanced. Circumstances of apparent imbalance, such as workaholism, suffer exhaustion, sleeplessness, chubbiness and circadian desynchronosis, are ever-present and have been linked to unpleasant health consequences. Yoga is a science practiced in India over thousands of years. It produces constituent physiological changes and has sound scientific basis. Pranayama are breathing techniques that put forth profound physiological effects on pulmonary, cardiovascular and intellectual higher centre functions. The science of pranayama deals with the control and fortification of the vital force which results in rhythmic respiration, calm and alert state of the mind. Various studies reveal that different types of pranayama produce divergent physiological effects.

KEYWORDS: Astangayoga, Psychological disorders, Pranayama, Asana, Stressor, breathing.

INTRODUCTION

Little is known about the amount or severity of untreated psychological disorders, particularly in less-developed countries. The mental health of a population is the result of multifaceted relations among different parameters at the person and population levels. Among risk factors, poverty remains the most significant factor for rising psychological distress and psychiatric symptoms.^[1,2,3] The physical atmosphere and poor social circumstances are producers of chronic stress and highly stressful life events.^[4,5] Psychological disorders like depression, sleep disturbances and anxiety have been recognized as some of the most common mental health troubles distressing elders. It is predictable that by the year 2020 depression will have risen from fourth to second amongst health situations worldwide, taking into consideration associated disability and premature mortality (Murray, & Lopez, 1997) Yoga is an ancient discipline designed to bring equilibrium and health to the physical, mental, emotional and spiritual extent of the individual. It is long popular practice in India that has become increasingly more common in Western society. "Yoga" means union of our individual consciousness with the Universal Divine Consciousness in a super-conscious state known as *Samadhi*.^[6,7]

YOGA: THE HISTORIC REVIEW

In Indian religions, yoga is "the techniques for transforming consciousness and attaining freedom (*moksha*) from karma^[8] and rebirth (*samsara*)."^[9] Yoga

is generally understood to be a curriculum of physical exercises (*asana*) and breathing exercises (*pranayama*). A 3,000 year old tradition, yoga, is now regarded in the Western world as a holistic approach to wellbeing and is classified by the National Institutes of Health as a form of Complementary and Alternative Medicine (CAM).¹⁰ The first book of human kind, *Rigveda*, mentions about yogic meditation by the wise, while *Yajurveda* exhorts us to practice yoga for enhancing mental wellbeing, physical strength and prosperity. In addition, yoga related terms like *pranayama* and *samadhi* occur again and again in *Bhagavad-Gita*. "Gharanda samhita" said there were 84 lakh asanas from which 16 000 were best and only about 300 are popular. Yoga is a form of mind-body strength that involves a combination of muscular activity and an internally intended for mindful focus on awareness of the self, the breath and energy.^[11] In the Western world, the most common aspects of yoga practiced are the physical postures and breathing practices of Hatha yoga and meditation.^[11] Yogic practices improve muscular power and body elasticity, promote and improve respiratory and cardiovascular function, promote recovery from and treatment of addiction, decrease stress, nervousness, misery and depression, improve sleep patterns and enhance overall well-being and excellence of life.^[11,12,13] Yoga is considered to be one of the most important effective and valuable ancient Indian systems to overcome various bodily and mental problems. Stress is one of the main reasons for the development of various pathological

conditions. These include psychological disorders such as depression, sleep disturbance and anxiety^[14,15] and medical disorders, including CHD, obesity, hypertension and diabetes^[16] Physiological studies have shown that constant worry due to any cause can influence the endocrine, hemopoietic and immune system. Cytokines and cortisol seem to play an important role in the communication of these systems.^[17] The stress response consists of activation of sympathetic nervous system (SNS) and hypothalamo-pituitary-adrenal (HPA) axis.^[18]

ASTANGA YOGA

Astanga yoga is often depicted symbolically as a tree and comprises eight aspects, Patanjali codified the ancient miracle of yoga as *asthanga* which is one of the six schools of Indian philosophy and is known as *Yoga Darshan*^[19]: *yama* (universal ethics), *niyama* (individual ethics), *asana* (physical postures), *pranayama* (breath control), *pratyahara* (control of the senses), *dharana* (concentration), *dyana* (meditation), and *samadhi* (bliss).^[20] Each division is connected with the whole, in the same way that bodily limbs are all connected. If somebody pulls the body by the leg, the rest of the body will automatically follow. In the same way, when one pulls one of the eight limbs of yoga, the others will naturally come. They are not stages to be achieved in chain.^[20]

PRANAYAMA

Pranayama – literally “life-force control” – are controlling techniques for shifting your consciousness, purifying mind and body and raising your potential. The Pranayama is the mid part of Patanjali's *asthanga* yoga framework. The pranayama is inferred from two Sanskrit words “Prana” and “ayama”, where “Prana” connotes Energy “ayama” connotes stretching. So the significance of pranayama is elongation of pranic vigor. By regulating the breathing one can control the emotion and unnecessary contemplations: this is conceivable just by the act of pranayama. In the event that one practices the pranayama without a doubt he will get control over unnecessary musings pranayama has 3 steps they are: 1. Pooraka (Inhalation) 2. Rechaka (Exhalation) 3. Kumbhaka (Retention). The following are safe and very useful types of pranayama for depression, anxiety and for general wellbeing like Kapalabhati, Anuloma Viloma, Ujjayi, Bhastrika, Shitali, Sitkari, Suryabhedana and Bhramari

- **Nadi Shodhana** – Alternate nostril breathing: (Balances the restrained life energy of the body and the two sides of the brain, calms the psyche and increases vitality; a good basic pranayama for depression and emotional imbalance).
- **Surya Bheda** – Right-Nostril Breathing – (Especially good pranayama for depression, with lassitude, dullness, difficulty in communication and removal from the external world).

Note: Running parallel to the most important, central path of subtle energy in the spine – called the “Sushumna Nadi,” are two intertwining pathways called the “Ida” and “Pingala.” The Ida is the “feminine” energy channel, leading to introspection, introversion, cooling and calming and is linked to the left nostril and left side of the body. It is related with the moon. The Pingala is the “masculine” energy channel, leading to extroversion, connection with the world, outward expression/verbal expression and physical energy. It is connected with the right nostril and right side of the body, and is associated with the sun or “Surya.”

- **Kapalabhati** – “Skull Shining Breath,” “Frontal Brain Cleansing Breath” – (Another tremendous practice of pranayama for depression, particularly when anxiety is present; good for calming the mind, diminishing thoughts, refreshing the mind and body).
- **Bhastrika** – “Bellows Breath” - (A very effective pranayama for depression and anxiety; detoxifies the body and purifies the mind; creates internal heat and stimulates metabolism; good for weight loss; Balances and strengthens the nervous system, inducing a peaceful and focused state of mind).
- **Ujjayi Pranayama** – “Victory Breath” “Ocean Breath” or “Psychic Breath” – This breath is very important and has several benefits. An excellent pranayama for depression, anxiety and stress. Ujjayi is very calming and soothing to the nervous system and this type of breathing can be done during meditation, for added benefit and to extend the breath

RISKS OF YOGA PRACTICE

Yoga put into practice are safe, some are laborious and may not be suitable for everyone. In particular, elderly patients or those with mobility problems may want to check first with a clinician before choosing yoga. But for many patients dealing with sadness, apprehension, anxiety, stress, yoga may be a very pleasing way to better manage symptoms.

DISCUSSION

Yoga is an ancient procedure of promoting health through exercises, regulation of breathing and meditation. The practice of yoga has increased in many countries, like US, UK and Japan. The popularity of yoga in US adults is marked by the estimated increase in participation from 3.7% in 1997, 5.1% in 2002, to 6.1% in 2007.^[21,22] Yoga has been reported to have various beneficial effects. Studies have shown that the practice of yoga reduces perceived stress and negative feelings and improves mental and physical symptoms.^[23,24,25,26] Yoga has therapeutic benefits on various mental disorders.^[27,28,29,30] It has been demonstrated that the practice of yoga improves the mental state by lowering the levels of anxiety, depression and anger.^[31,32,33,34] The stress and stress-induced disorders like obesity, depression, anxiety and hypertension are fast growing

epidemics and curse of “modern” society. The holistic science of yoga is the best method for prevention as well as management of stress and stress-induced these disorders. Several studies have shown yoga to have an instant down-regulating effect on both the HPA axis responses to stress. Efficiency of yoga against stress management is well recognized.^[35] despite the consequences of the pathophysiologic pathway; yoga has been shown to have immediate psychological effects: decreasing anxiety^[36,37,38,39] and way of thinking of emotional, social and spiritual health.^[40] Since the 1970s, meditation and other stress-reduction techniques have been studied as possible treatments for psychosomatic disorders. Presented reviews of a wide range of yoga practices suggest they can reduce the impact of embrodered stress responses and may be helpful for psychological disorders. It mainly acts via down-regulating the HPA axis that trigger as a response to a physical or psychological stressor, leading to a cascade of physiological, behavioral and psychosomatic effects, primarily as a result of the release of cortisol and catecholamines (epinephrine and norepinephrine).⁴¹ Yoga functions like other self-soothing techniques, such as relaxation, meditation and exercise. By means of reducing perceived pressure and anxiety, yoga appears to change stress response systems. This, in turn decreases physiological awakening e.g., reducing the heart rate, lowering blood pressure and easing respiration.

CONCLUSION

Researches in yoga is increasing day to day, its therapeutic aspects are also being explored. Yoga is reported to reduce stress and anxiety, improves autonomic functions by triggering neurohormonal mechanisms by the suppression of sympathetic activity and even, now-a-days, several reports suggested yoga is beneficial for physical health. However, there is a definite need for more directed scientific work to be carried out to elucidate the effects and the mechanisms of such effects of yoga on the human body in health and disease. Taking into consideration the scientific facts discussed thus far, it is fair to conclude that yoga can be beneficial in the prevention and cure of diseases.

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