



Full Length Research Paper

Yoga is a Boon of Nature to Human beings for Disease free, Holistic health and Quality life

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Abstract

Yogic practices and healthy and natural lifestyle are two boons for holistic health and quality life to human beings. Yoga may excellently be defined as the holistic science of life dealing with physical, mental, emotional and spiritual health through body, mind, soul and divine peace. Asanas (poses), Pranayama (breathings), Meditation (body-mind coordination), Kriyas (cleansing processes), the main components of Yoga, are immensely significant for disease free and quality life by reducing the physical, mental and emotional stress levels and ensuring the right thoughts, actions, reactions and attitudes. World Health Organization has defined "Swasthya" person as physically, biologically, socially, economically, mentally, emotionally, morally and spiritually fit. Seasonal and body friendly foods, right exposure, thinking and actions sufficiently empower our disease fighting competence thereby highly signifying lifestyle. Our body is the best Pharma/Drug/Biochemical industry synthesizing all bio-chemicals required for disease free and quality life without drugs. Impacts of several poses of yoga on immune structures, responses, synthesis and secretions were extensively studied and encouraging results were observed. Yogic practices serve as immunofacilitators and revitalizers for our immune system. These leading findings provide better hopes for researches in the area of human health mainly in the times when we are bewildered with several diseases and health complications including corona pandemic crisis. The mind-body coordination and their communion to nature as remedy/medicine, strengthening the therapeutic concepts of Yogic Science, needs to be extensively researched scientifically which will be serving as the complementary and alternative medicine for human beings. The formulation, clinical standardization, reproducibility and credibility of yogic practices, as molecular medicine, will place it in the category of miraculous, amazing and most innocuous futuristic drugs with absolute degree of clinical efficacy, requiring no financial inputs, thereby promoting self-health wellness centre and establishing new discipline- Yogic Immunology.

Key words: *Yogic practices, Human holistic health, Lifestyle medicine, Clinical standardization, Mind-body coordination, Mind-body medicine as molecular medicine, Yogic Immunology.*

Historical perspective of Yoga

Yoga originated thousands of years ago. Bhagwan Shiva- the first yogi and the first Guru showered his profound knowledge into the legendary saptarishis or "seven sages" several thousand years ago on the banks of the lake Kantisarovar in Himalaya. Yogic science is deeply related with Vedas. The most ancient texts record Yogic teachings during 1800 – 300 BC. It has been classified as – *Pre Classical Yoga*, Buddhist – meditation and ethical thought, Jainism – "liberation of the spirit", Hinduism – "physical purification process", *Classical Yoga* – 2nd century A D, wisdom would be internalized and finally the *Post Classical Yoga* - the body should be treated as a *temple*. The sages contributed enormously in spreading this powerful yogic/spiritual science to different parts of the world, including Asia, the Middle East, Northern Africa and South America. The yogic system originated, nurtured and fully expressed in India. Agastya, the saptarishi who travelled across the Indian subcontinent, crafted this culture around a core yogic way of life. Presence of Yoga is available in folk traditions, Indus valley civilization,

Vedic and Upanishadic heritage, Buddhist and Jain traditions, Darshanas, epics of Mahabharat and Ramayana, shaivas, vaishnavas and tantric traditions of theistic Yoga, being widely considered as an 'immortal cultural outcome' of Indus Saraswati Valley civilization dating back to 2700 B.C., has proved itself catering to both material and spiritual upliftment of humanity. Basic human values like honesty, sincerity, emotionality, kindness, ethics, morality, divinity and excelling to all- the spirituality are the identifiable features of Yoga Sadhana. Yoga started with the dawn of human civilization. The spiritual Gurus were valued the most. Yogic practices dates back to pre-vedic period. The great sage- Maharshi Patanjali systematized and codified the then existing practices of Yoga, its meaning and its related knowledge through his Yoga Sutras and hence he occupies the central position in its organizational development. Subsequently, many sages and yoga masters contributed greatly for the preservation and development of this field through their well-documented practices and literature. The *Classical* period is considered as the most fertile period in the history of

Yoga. During this period, commentaries of Vyasa on Yoga Sutras and Bhagawadgita etc. came into existence. We find its more explicit explanation in Bhagawadgita which has elaborately presented the concept of *Gyan* yoga, *Bhakti* yoga and *Karma* Yoga. These three types of yoga are still the highest example of human wisdom and even today people find peace by following the methods as shown in Gita. Patanjali's yoga sutra, besides containing various aspects of yoga, is mainly identified with eight fold path of Yoga. The very important commentary on Yoga sutra by Vyasa was also written. Mind and body both can be brought under control to experience equanimity.

Types of Yoga

Yoga, working on the level of one's body, mind, emotion and energy, classifies broadly itself into four categories: *Karma* yoga utilizing the body, *Bhakti* yoga utilizing the emotions, *Gyana* yoga utilizing the mind and intellect and *Kriya* yoga utilizing the energy (Vilma, 2004; Lipton, 2008). Besides, there are several other types of Yoga based on processes, participations and the practioners as:

Iyengar- This is a slow-paced style of yoga that is better for beginners. It is detail oriented and teaches proper alignment. It incorporates props (belts, blocks and folded blankets) to modify the poses so they are easier for beginners.

Ashtanga-This is a traditional style of yoga which involves continuous poses that are of high intensity. It focuses on ujjayi breathing (in/out through the nose) throughout the exercises.

Power- This is one of the most athletic forms of yoga. Through a sequence of poses in Ashtanga, the focus is on improving upper body strength, flexibility and balance. It is also known as *Flow* Yoga or *Vinyasa* Flow. It is typically offered in heated rooms.

Bikram-This form of yoga is practiced in a heated room (typically 100 degree or more). Each class is a sequence of twenty six poses designed to stretch and strengthen muscles and release toxins from the body and helps immensely in high blood pressure/diabetes.

Kundalini- This is a *spiritual* and *philosophical* style of yoga designed to awaken energy in the spine focusing on meditation, breathing techniques, chanting and poses.

Hatha- This is the original practice of yoga that focuses on physical poses rather than the breathing exercises. However, this form of yoga is now often combined with other styles to create a form of yoga that is great for beginners.

Viniyoga- This is a gentle style of yoga targeting on flexibility and ideal style for beginners and those recovering from injury.

Tripathi's Brainso Yoga- The ever new most realistic yoga personalized and conceptualized by the author of this research article- Dr. D.M. Tripathi (living life with yoga as a part and parcel for the last many years). It is like a sacred marriage between mind and body (*psycho-soma holy bonding* with a silver shining thread of faith). Further, this is a psychosomatic form of yoga where brain and the body together play the most pivotal roles in harmonizing and synchronizing the health holistically at viable and enjoyable levels with a positive psychological flavor. It is practiced at moderately low levels of temperature preferably in early hours of morning and aims at reawakening and charging the entire body with positive energy.

Influences of Yoga

Yoga is understood as a therapy or exercise system for health fitness. While physical and mental health are natural consequences of yoga, the goal of yoga is far more beyond aiming at the caring for soul and endeavors for life in totality and ahead. "Yoga is to harmonize the self with the universe. It is also revered as a holistic science of life, dealing with physical, mental, emotional and spiritual health and the regular yogic practices help to reduce the levels of physical, mental and emotional stresses and emphasize right thought, right action, right reaction and right attitude. Various Philosophies, Traditions, lineages and Guru-shishya paramparas led the emergence of different Traditional Schools of Yoga like Jnana-yoga, Bhakti-yoga, Karma-yoga, Dhyana-yoga, Patanjala-yoga, Kundalini-yoga, Hatha-yoga, Mantra-yoga, Laya-yoga, Raja-yoga, Jain-yoga and Bouddha-yoga. Asanas – poses, Pranayama – breathings, Meditation- dhyana, Kriyas – cleansing processes are the *souls of Yoga* (Vilma, 2004).

Yoga- the way of life and its importance

Yoga, working as *self-massage*, increases flexibility and helps to ease the tight muscles in body including joints. These movements and poses are more on *mind and spirit*. Mind relaxation through yoga is making life pleasant and offers the bliss. The problems are never perceived as problems rather enjoyed as facing for solutions and consequently becoming stronger to overcome obstacles. Each person has the unique perspective of life and requires a positive change, better quality life by practicing yoga. The blessings of yoga are showered holistically through five fundamental principles, in rationality and reasonability, *viz., breathing, exercise, diet, relaxation and thinking in proper manner*. Kriyas, the internal cleansing processes, empowers inner discipline necessary for better change. *Prana* helps in *spiritual growth* by making you feel to remain in union with the universe and increases intuition and energy field. According to Ayurveda, a person living hundred years of disease free, healthy and quality life is termed as an immortal being attaining the *immortality-Amaratwa*. Yoga is not just a *physical fitness exercise* but a complete way of life. It deals with four areas affecting the features as character in

perceiving everything around especially the relationships rendering limitless *joy and happiness*. These are - *Gyan* (philosophy), *Bhakti* (path of devotional bliss), *Karma* (path of blissful action) and *Raha* (path of mind control). One of the eight parts of raha is the Asana which deals with postures. Yoga along with postures includes breathing techniques and meditation.

Holistic health and its historical perspective

Holistic health, the concept of completeness and perfection, refers to the interconnection of mind, body, soul, spirit and environment as interpersonal and interdependent units. It is a state of balance not simply an absence of illness. It is the most effective ways of healing considering the whole person as one entity rather than focusing on specific illnesses, body parts or symptoms (Heriza, 2004). The belief of mind-body (mental and physical faculties- the concept of “*Chaturangini Sena*” of Ayurveda) oneness holds the key of holistic health. During practicing a posture, breathings are concentrated and help relax muscles, maintain the posture and concentration of mind. There are several forms of yoga and selecting the best one style suiting the self-fitness level and goals amounts to ample wisdom. Yogic Practices render health, wellness and happiness. The widely practiced Yoga Sadhanas (practices) are: Yama, Niyama, Asana, Pranayama, Pratyahara (the outer yoga), and Dharana, Dhyana (Meditation), Samadhi /Samyama (the inner yoga) besides, Bandhas and Mudras, Shat-karmas, Yukta-ahara, Yukta karma, Mantra Japa, etc. Yama- the restraints and Niyama- the observances are essentials for Yoga Sadhanas (practices) while Asanas, capable of bringing about stability of body and mind, consist in adopting various body (psycho-physical) patterns, giving ability to maintain the body position (a stable awareness of one’s structural existence) for the desired periods of length and duration. Dhyana (Meditation) is contemplation (focused attention inside the body and mind) and Samadhi – integration. Bandhas and Mudras are practices associated with pranayama. These are viewed as higher Yogic practices mainly consisting on adopting certain body (psycho-physical) patterns along with control over respiration. This further facilitates control over mind and paves way for higher yogic attainment. Shat karmas, the detoxification procedures, help to remove the toxins accumulated in body and are clinical in nature. Yuktaahara (right food and other inputs) advocates appropriate food and food habits for healthy living. However, practice of Dhyana (Meditation), helping in self-realization leading to transcendence, is the essence of Yoga Sadhana (Miller and Cohen, 2001). World Health Organization has defined a Swasthya person, embodiment of total/perfect health, to be physically, biologically, mentally, emotionally, economically, socially, morally and ultimately the spiritually fit. Yoga deals extensively and satisfactorily with the amazing aspects of life and health i.e. *mind, soul, consciousness, emotions and moksha, the ultimate goal of human life- the deliverance and liberation of soul from bodily world to divine world*. The concept of holistic

health considers the human body as a small universe of interconnected systems, including physical elements as well as subtle energies, such as spirit corroborating well with our Ayurvedic popular concept of “*यत् पिण्डे तत् ब्रह्माण्डे*” (meaning what is there in universe, the same is present in our body). Socrates very rightly said “*the part can never be well unless the whole is well*”. Two of the most well documented ancient holistic health traditions are *Traditional Chinese Medicine (TCM)* and *Ayurveda*. I have immensely researched on various modes of *Ayurvedic Therapy* mainly the *Rasayana Mode of Therapy*, applying several biomedical and biotechnological tools and techniques, to make people disease free and offer better quality life (Abbas et al., 1997; Agarwal et al., 1997; Tripathi et al., 1999; Tripathi et al., 2003; Tripathi, 2005). Traditional Chinese Medicine dates back its origin around 5,000 years with continued transformation through evolution into a complex system of diagnosis and therapy methods. The value of emotional and spiritual wellbeing, in achieving physical health, was recognized much earlier to uses of penicillin or x-rays.

Holistic health and modern medicine

Hippocrates- the father of medicine (4th century B.C.), attentively focused on healing power of nature and believed in encouraging the self-healing efforts of body. Other early physicians were more interested in actively stepping in correct illness. These two approaches- *support versus intervention*, were debated for centuries until the scientific revolution of the 19th century. Western medicine became thoroughly focused on intervention after the discovery of germs as disease causing agents. Diseases were treated as invaders to be destroyed with medicines such as penicillin. Physicians paid less attention to healthy lifestyle choices, environmental factors and emotional health. The emphasis was on symptoms and syndromes and not on the real causes of diseases. Patients were discouraged from participating in their own health care and began to believe that medicine should simply “fix” them. The clear understanding of the demerits of this approach took almost a century. The modern medical treatments applied, for the cure, were found even more harmful than the diseases. Further, the problems of non-responsiveness to these scientific treatments, in cases of other diseases and chronic conditions, were encountered. Eventually, it necessitated people for searching alternative forms of medicine. Thus, renewed interest developed in holistic health education in the western world. The first *National Conference on Holistic Health* was organized in California in 1975. Thereafter, *American Holistic Health Association (AHHA)* and the *Holistic Medical Association* were formed (American Yoga Association, 2005)

Present scenario of holistic health

Due to increasing pollution, we are having more pollutants and chemicals in our food and environment which are causing a huge imbalance in our present day life. Obesity and chronic diseases are like the epidemics being faced presently and appear to be caused by the wrong and

detracted lifestyle. Nutritional deficiency and lack of proper exercises are the main precipitating factors for various health complications in most of the people. The stress in life is a reflection of fast paced society struggles for almost everyone. I visualize stress as the difference between capacity and the expectations. Due to all these complications, consumers are concerned for their health. There has never been a greater need for the holistic health approach than the present prevailing time and people are demanding medical alternatives and actively seeking better options for their personal wellness and quality life. This has resulted in constant research and development in the wellness industry (Antoni et al., 2007). Even, very few medical doctors practice holistic health care, so persons trained in holistic health discipline are highly required. These holistic health practitioners offer healing alternatives such as massage therapy, nutrition, chiropractic medicine, acupuncture, medication and homeopathic medicine. Undoubtedly, no holistic health practitioner can be the expert in all forms of health restoration; each offers a unique package of skills and knowledge, for conferring the whole body health and balance, to the patients.

Human health

Physical, Mental and the Spiritual Health are the backbone of mind-body concept of medicine to offer holistic health and quality life to human beings.

Physical health

Flexibility is the most important health benefit of yoga in which gentle stretches and poses extend the ligaments and tendons. Postures like tree pose and half-moon increase the body balance and confidence levels. The strength and coordination also increase through balance poses. *Seated twist pose* and *cat pose* offer gentle massage to organs and increase the blood flow (Konar et al., 2000) and consequently resulting in body detoxification, better circulation of blood and increased energy levels (Dunn, 2008).). Good organ health is essential for the prevention of diseases.

Mental health

Several postures, breathing exercises and meditations are known to serve as memory facilitators by increasing the grasping and retention powers of brain immensely. Yogic practices enhance the powers of concentration and focus amazingly. Further, yoga reduces stress- a leading cause of physical and mental dysfunction. World Health Organization has rightly said that all diseases and even accidents are caused because of stress. Pranayam- the controlled breathing is incorporated in yoga. Serious stressful situations, at the onset, are being tackled just by taking a moment to breath.

Spiritual health

The beginning of yogic practices automatically makes practitioners self-aware and also self -awakened instantaneously. Even, the inclination towards yogic way

of life comes as a result of self- awareness in totality. The sleep walking in life never exists but is being realized as the reflections of having connections to self and others. It enhances decision making power and incorporates the quality of more compassion. The chanting and meditation practices, along with yoga, enhance the ability to be in the moment. This skill enables calmness for mind and brings the state of peacefulness and satisfaction (Wang et al., 2010).

Yoga as molecular medicine through mind-body coordination

Recent global researches have established that anti-viral gene expression mediates several effector responses including lymphocyte proliferation and response to vaccination, besides, characterizing various lymphocyte subpopulations like CD4 T-cells and NK cells. Further, activation of inflammatory genes can enhance inflammatory cellular markers like pro-inflammatory cytokines IL-6, TNF α and C-reactive protein (CRP). The effective and quantifiable gene expressions may be regulated by stress response mechanisms (Irwin and Cole, 2011) and extracellular pathogens like bacteria. On the contrary, viruses- the intracellular pathogens are known to develop a different antiviral gene expressions involving the induction of type I interferon (IFN) genes through transcription factors like interferon regulatory factors (IRFs). The psychological adjustment and sleep quality trails influenced the lymphoma patients (Cohen et al., 2004). The clinical studies on exercises, as the behavioral interventions, have found reduction in the chronic inflammation, increase in immunological memory related to vaccination and also the reduction in number of sickness periods in cases of common cold and other upper respiratory tract infections (Haaland, et al., 2008).). Miller et al.(2009) studied chronic interpersonal stress and used in predicting the activation of pro and anti-inflammatory signaling pathways. The inhibitory effects by sympathetic nervous system on expression of antiviral genes and stimulatory effects on pro-inflammatory genes like β -adrenergic signaling decrease antiviral or adaptive immune responses by suppressing Th1-type gene expression (such as IFNG and IL-12B) and transcriptional stimulation of T helper 2 (Th2) type cytokine genes like IL-4 and IL-5 (Cole et al., 1998., Lee et al., 2000., Panina-Bordignon et al., 1997). The chronic actions of social stressors result in the increased expressions of pro-inflammatory immune response genes inspite of the stable or elevated glucocorticoid levels (Miller et al., 2008., Miller et al., 2009., Chen et al., 2009., Cole et al., 2011., Cole et al., 2007). Interesting research findings are available on *mind-body* interventions showing capability of causing the reversal effects on acute and chronic stresses. Behavioral responses appear holding the key of neuroendocrine and autonomic pathways' activation. Eventually, such effects, through immune system, may modulate the susceptibility to a variety of diseases. Thus, behavioral interventions, altering immune responses,

provide strong evidence for psychological influences on immune function.

Concluding remarks

This research review attempts to assess the various ways and means of ensuring the holistic health and quality life through yogic practices and postures to human beings. Historical perspectives and types of various yoga have been surveyed extensively at par with the global levels. Contributions of several researchers, in this direction, have been scanned and eventually findings noted. The future line of action of researches, to be carried out, have been suggested for ensuring disease free, better and quality life through the interventions of several practices and the postures. The need of standardizing such practices at individual levels of responses has been emphasized with pressing demand so as to have, in hands for use, the futuristic better and promising drugs for generations ahead.

Future directions of research

The yogic postures and practices, as immunofacilitators/revitalizers, have been found therapeutically managing the human populations with pro-inflammatory states such as infection, neoplasm, inflammatory arthritis, infarction and tissue injury. Further, understanding *dose response relationship* and *critical components of mind-body interventions* associated with changes in hormone levels, inflammatory and antiviral outcomes will be beneficial in accessing and unveiling the mechanistic pathways. Noteworthy, to mention that *clinical findings* will provide insight into the phenomenon of *complementary and alternative medicine therapeutic concepts* thereby establishing a new paradigm for understanding *health and treating illness*. The physical and emotional risks in using yogic practices for holistic health are bare minimum. *Testing and standardization of mind-body coordination* and interventions will help in conceptualizing the *therapeutic aspects* easily. Finally, future research, focusing on *basic mind-body mechanisms and individual differences* in eliciting responses, is likely to yield new insights that may enhance the *effectiveness* and individual *tailoring of mind-body interventions*. Further, the mind-body interventions, even as these are being studied today, have positive effects on psychological functioning and quality of life and may be particularly helpful for patients coping with *chronic illness* and in need of *palliative care*.

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