CRITICAL ANALYSIS ON EFFECT OF NADI SHODHANA PRANAYAMA IN PRESENT SCENARIO

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ABSTRACT

The state of health is not only determined by individual’s physical health but also includes mental and psychological and social measurement for proper health. Improved wellbeing is the combination of feeling good (including positive emotions such as happiness, contentment, interest and affection) and functioning well. It means in present days health is not bounded with physical body but also include mental social and spiritual aspect also, because these play very important role in the basics of health. Yoga has a rich base to deal with physical as well as mental health. If one practises Yoga, one can surely notice how certain Asanas affect one’s mind and body. Yoga is the science of right living which includes Asana, Pranayama and Kriyas. Yoga consists of five principles which include proper exercise, proper relaxation, proper breathing, proper diet, positive thinking and meditation. In this modern world right from the adult to old age, very common occurrence of stress, anxiety, headache, cardiovascular problems, and psychosomatic complications are more. Pranayama means control of breathing. As a technique Pranayama is the practice of slow and deep breathing. The mechanism of Nadi Shodhana pranayama (NSP) to overcome most of the problem as anxiety, stress, psychosomatic disorders are responsible for these responses is fully focused on domination ruled by parasympathetic nervous system over sympathetic nervous system. This in turn improved blood flow, endocrinal secretions and also reduces the stress, heart rate, blood pressure; pulse and MAP (mean arterial pressure).

KEYWORDS: Yoga, Asanas, Nadishodhana Pranayama, Psychosomatic disorders.
INTRODUCTION

Yoga is the science of right living and as such, it is determined to be incorporated in daily life. It works on all aspects of the person i.e. the physical, vital, mental, emotional, psychic and spiritual. The word Yoga means 'unity' or 'oneness' and is derived from the Sanskrit word Yuj, which means 'to join'. Unity or co-joining is a spiritual term because it describes the union of consciousness of any person to the consciousness of this universe. On a more practical level, Yoga is a means of balancing and harmonizing the body, mind and emotions. Ancient literature and latest researches describe that it can be done only through the practice of Yogic Asana, Pranayama, Mudra, Bandha, Shatkarma and meditation, must be achieved before union can take place with the higher reality.\(^1\) The science of Yoga begins to work on the outermost aspect of the personality and the physical body. If not perform properly then is experienced at this level, the organs, muscles and nerves no longer function in harmony rather they may act in opposition to each other. For instance, the endocrine system might become irregular and the efficiency of the nervous system decrease to such an extent that a disease will manifest. The aim to bring all the different body functions into a perfect coordination can be fulfilled only by the practice of Yogic exercises. By the practice of Yogic exercises whole body from the physical body moves on to the mental and emotional levels. Many people suffer from phobias and neurosis as a result of the stresses and interactions of everyday living. Yoga cannot provide a cure for life, but it does present a proven method for coping with unfavourable circumstances.\(^2\)

Brief description about development and expansion of Yoga\(^3\)

The Yoga we know today was developed as a part of the tantric civilization which existed in India and all parts of the world more than ten thousand years ago. In archaeological excavations made in the Indus Valley at Harappa and Mohenjodaro, now in modern Pakistan, many statues have been found resembling that Lord Shiva and Shakti (in the form of Parvati) are performing various Asanas and meditation. According to mythical tradition, Shiva is said to be the founder of Yoga and Parvati, his first disciple.

Lord Shiva is considered to be the symbol or embodiment of supreme consciousness. Parvati represents supreme knowledge, will and action, is responsible for all creation. This force or energy is also known as Kundalini Shakti, the cosmic force which lies dormant in all beings. Parvati is regarded as the mother of the whole universe. The individual soul is liberated from the bondage of the world and united with supreme consciousness through her grace. The
techniques of Yoga have their source in Tantra and the two cannot be separated, just as consciousness, Shiva, cannot be separated from Energy i.e. Shakti. Tantra is made up of two words, Tanoti and Trayati, which mean 'expansion' and 'liberation' respectively. Therefore, it is the science of expanding the consciousness and liberating the energy. Tantra is the way to attain freedom from the bondage of the world while still living in it. The first step in Tantra is to know the limitations and capacities of the body and mind. Next it prescribes techniques for the expansion of consciousness and the liberation of energy whereby individual limitations are transcended and a higher reality experienced.

The development of Yoga started with the human civilization, when humankind initially realized spiritual potential and began to go forward techniques to grow it. Some traditions believe that Yoga was a divine gift revealed to the ancient Sages so that humankind could have the opportunity to realize its divine nature. The first books to refer to Yoga were the ancient Tantras and later the Vedas. Although they do not give specific practices, they allude to Yoga symbolically. In fact, the verses of the Vedas were heard by the Rishis, seers, in states of deep yogic meditation or Samadhi, are regarded as revealed scriptures. It is well described in Upanishads in which Yoga begins to take a more definable shape. These scriptures collectively form Vedanta, the culmination of the Vedas, and are said to contain the essence of the Vedas.

Sage Patanjali's treatise on raja Yoga, the Yoga Sutras, codified the first definitive, unified and comprehensive system of Yoga. Often called the eight-fold path, it is comprised of Yama (self-restraints), Niyama (self-observances), Asana, Pranayama, Pratyahara, (disassociation of consciousness from the outside the environment), Dharana (concentration), Dhyana (meditation) and Samadhi (dissolve itself or identification with pure consciousness).

In the 6th century BC, Buddha's influence brought the ideals of meditation, ethics and morality to the fore and the preparatory practices of Yoga were ignored. However, Indian thinkers soon realized the limitations of this view. The yogi Matsyendranath taught that before taking to the practices of meditation, the body and its elements need purifying. He founded the Nath cult and the yogic pose Matsyendrasana was named after him. His chief disciple, Gorakhnath, wrote the book on Hath Yoga. One of the most outstanding authorities on Hatha Yoga, Swami Swatmarama, wrote the Hatha Yoga Pradipika, or 'Light on Yoga', in Sanskrit. In doing so, he reduced the emphasis on Yama and Niyama, thereby eliminating a great obstacle experienced by many beginners. In the Hatha Yoga Pradipika,
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Swatmarama starts with the body and only later, when the mind has become stable and balanced, then Yamas and Niyamas (self-control and self discipline) introduced.

Pranayama\textsuperscript{[6]}

It is one of the most beneficial limbs of Astang Yoga of the great practitioner of Yoga sage Patanjali. Pranayama is generally defined as breath control. Although this interpretation may seem correct in view of the practices involved, it does not convey the full meaning of the term. The word Pranayama is included of two roots: 'Prana' plus 'Ayama'. Prana means 'vital energy' or 'life force', in short it can say it is the expansion of Prana Shakti. It is the force which exists in all things, in this world. Although closely related to the air we breathe, it is more subtle than air or oxygen. Pranayama is not only considered as breathing exercises but also to introduce extra oxygen into the lungs proper function of whole body. Through Pranayama can utilizes breathing to influence the flow of Prana in the Nadis or energy channels of the Pranamaya Kosha or energy body. Ayama means 'extension' or 'expansion'. So, word Pranayama denotes 'extension or expansion of the various dimension of Prana' in the form of Prana Shakti. The techniques of Pranayama provide the method whereby the life force can be activated and regulated in order to go beyond one's normal boundaries or limitations and attain a higher state of vibratory energy and awareness. The word Ayama is also defined as the mechanism of controlling and the regulation means it is the technique to regulate the breathing.

Four steps of Pranayama\textsuperscript{[7]}

In the Pranayama practices there are four important aspects of breathing which are utilized. These are.

1) Pooraka or inhalation
2) Rechaka or exhalation
3) Antar kumbhaka or internal breath retention
4) Bahir kumbhaka or external breath retention.

The different practices of Pranayama involve various techniques which utilize these four aspects of breathing. Therefore, in the Pranayama practices more emphasis is given to inhalation and exhalation at the beginning, in order to strengthen the lungs and balance the nervous system and Pranic energy systems of body.
According to concept of Yogic physiology, the human framework is comprised of five bodies or sheaths, which account for the different aspects or dimensions of human existence. These five sheaths are known as:
1. Annamaya Kosha, the food or material body.
2. Manomaya Kosha, the mental body.
3. Pranamaya Kosha, the bioplastic or vital energy body.
4. Vigyanamaya Kosha, the psychic or higher mental body.
5. Anandamaya Kosha, the transcendental or bliss body.

All the five sheaths communicate together to form an integral whole body healthy. Pranayama works mainly with Pranamaya Kosha which is made up of five major Pranas, which are collectively known as the Pancha, or five, Pranas i.e. Prana, Apana, Samana, Udana and Vyana.

The concept how faulty lifestyle obstructs the flow of Pranic energy in Nadis or channel system[8-9]

Lifestyle has a profound impact on the Pranamaya Kosha and its Pranas. Physical activities such as exercise, work, sleep, intake of food and sexual relations all affect the distribution and flow of Prana in the body. Direct and indirect actions of the mind such as Manasika Bhavas (control and regulation of various emotions, thought and imagination½, affect the Pranic body more. Irregularities in lifestyle, dietary indiscretions and stress deplete and obstruct the Pranic flow. This results in what people experience as being 'drained of energy'.

Depletion of energy in a particular Prana leads to the revitalization of the organs and limbs it governs and ultimately to disease or metabolic dysfunction. The techniques of Pranayama reverse this process, energizing and balancing the different Pranas within Pranamaya Kosha. Pranayama practices should be performed after Asanas in an integrated Yoga programme.

The breath is the most vital process of the body. It influences the activities of each and every cell and, most importantly, is intimately linked with the performance of the brain. Once the mind has been stilled and Prana flows freely in the Nadis and Chakras, leading the aspirant into higher dimensions of spiritual experience. In The Science of Pranayama, Swami Sivananda writes, "There is an intimate connection between the breath, nerve currents and control of the inner Prana or vital forces. The visibility of Prana on the physical plane as motion and action and on the mental plane as thought. Pranayama is the means by which a
Yogi tries to realize within his individual body the whole cosmic nature, and attempts to attain perfection by attaining all the powers of the universe."

Contra-indications: Nadi Shodhana is not to be practised while suffering from colds, flu or fever.

Benefits of Nadi shodhana Pranayama

Technique, increases awareness and sensitivity to the breath through the nostrils. Minor blockages are removed and the flow of breath in both nostrils becomes more balanced. Breathing through the left nostril tends to activate the right brain hemisphere; breathing through the right nostril activates the left hemisphere. The long, slow, balanced breathing of stage 2 has profound effects, calming and balancing the energies. Technique 2 gives more pronounced balancing of the breath and the brain hemispheres. It has calming effects and relieves anxiety, improves concentration and stimulates Agya (Ajna) Chakra. The ratio 1:1 in stage 1 establishes a calming rhythm for the brain and heart, assisting people with cardiovascular and nervous disorders specifically, and stress-related conditions generally.

DISCUSSION

In the Pranayama practices more emphasis is given to inhalation and exhalation at the beginning, in order to strengthen the lungs and balance the nervous and Pranic systems in preparation for the practice of Kumbhaka. These initial practices influence the flow of Prana in the Nadis, purifying, regulating and activating them, thereby inducing physical and mental stability. Lifestyle has a profound impact on the Pranamaya Kosha and its Pranas. Most of the Physical activities such as exercise, work, sleep, intake of food and sexual relations all affect the allocation and flow of Prana in the body. Irregularities in lifestyle, dietary indiscretions and stress deplete and obstruct the Pranic flow. This results in what people experience as being 'drained of energy'. Diminution of energy in a particular Prana leads to the devitalisation of the organs that governs ultimately to disease or metabolic dysfunction. The techniques of Pranayama reverse this process, energizing and balancing the different Pranas within Pranamaya Kosha. Rhythmic, deep and slow respiration stimulates calming and balancing of the mind. Unbalanced breathing interrupts the rhythms of the brain and leads to physical, emotional and mental blocks. These in turn lead to inner conflict, an unbalanced personality, a disordered lifestyle and origin and progression of disease. Pranayama ascertains regular breathing patterns, breaking this negative cycle and reversing
the debilitating process. It does so by giving us control of the breath and re-establishing the natural, relaxed rhythms of the body and mind.\[^{12}\]

**Role of psychosomatic disorder in present perspective of life and its regulation by Agya Chakra** - On the basis of various literature and journals, scholar understands physiological mechanism of *Pranayama* and clarifies the role of NSP in the regulation of the autonomic nervous system and endocrine system. CVS and respiratory system with nervous system are the basic systems required for continuance of tempo of life.\[^{13}\] When one nostril is dominant, the contra lateral half hemisphere activated. The right nostril breathing leads to increased sympathetic activity while left nostril breathing decreases sympathetic activity and increases parasympathetic activity with vagal tone via regulation of *Pingala* and *Ida Nadis* and regulation of seven Chakras. Through this regulation of ANS occurs in the control of Agya Chakra.\[^{14}\] These Yoga practices might be interacting with various somatic and neuro-endocrine mechanisms bringing about therapeutic effects. The overall performance is known to be improved by practicing Yoga techniques and their effects on physical functions were reported better. A regular practice of *Pranayama* training produces a decrease in basal sympathetic tone. Yoga practices can also be used as psycho-physiological stimuli to increase the secretion of melatonin which, in turn, might be responsible for perceived well-being. *Nadi-Shodhana Pranayama* increases parasympathetic activity. Slow and deep breathing itself has a calming effect on the mind and helps an individual to de-stress. Regular practice of Yoga leads to improvement in physiological functions and human performance. *Yoga and paranyam* may be as effective as or better than exercise at improving a variety of health-related outcome measures. Effects of 6-week *Nadi-Shodhana Pranayama* training on cardio-pulmonary parameters and pulmonary parameter such as Peak expiratory flow rate (PEFR L/min) and Pulse pressure (PP) improved nicely.\[^{5-16}\]

*Yogic* practices are also reported to cause a shift in autonomic balance towards parasympathetic dominance. Yogic practices have been shown to reduce baseline average glucocorticoid levels. However, the glucocorticoids response to an acute challenge is enhanced. These findings indicate a lower level of stress and enhanced capacity to cope up with a challenge. This stress free individual adapts better to the daily emotional, physical, and mental stresses. Therefore, the significantly less time taken to solve the mathematical problems could be due to better adaptability for mental stress induced by breathing act for 20 minutes per day.
CONCLUSION
Psychosomatic pacifying activities emphasize the unity of mind and body and develop good interaction between them. Overall the conviction is that psychological factors plays important role in the development of all diseases; either the role is in the initiation, progression, aggravation or exacerbation of a diseases. Different types of Pranayama especially Nadi Shodhana Pranayama and Dhyana practices are known to significantly improve health status, reduce stress and anxiety and decline the further progression of diseases. This Pranayama controls the emotions and regulates the nervous system. Practice of Nadi Shodhan Pranayama (NSP) in enhancing Feeling Healthy, Memory Recall, Mental Stress Relief and Physical Relaxation. It reduces Mental Stress level.

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