# Positive Impact of Sudharshan Kriya Pranayam on Occupational Stress and Wellness

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#### **Abstract**

"Health for All" is the goal promoted since 1977 by the World Health Organization (WHO). Stresses of modern living and work life have induced several symptoms of psychopathology among people from various walks of life. Consequences of stress affects people psychologically, physiologically and behaviorally which adversely affects their work-life balance. The Sudharshan Kriya Pranayama of the 'Art of Living' center at Bengaluru, India is a potent and effective method to counterbalance the effects of stress and enhance wellness. An extremely unique vogic breathing practice is Sudharshan Kriya Yoga which involves various kinds of breathing patterns that alternate between slow and relaxing to quick and stimulating. One hundred senior officers of the Government of India of different Ministries / Departments participated in the experiential learning workshop at the Art of Living centre at Bengaluru for the programme 'Building Competencies for Personal Excellence' in 2021. The participants practiced the Sudharshan Kriya Yoga for about two months. The feedback from the officers were collected and the same were analysed. It was seen that due to the practice of Sudharshan Kriya Yoga the heightened flow of energy between the mind and the body led to stress reduction and wellness among the senior government officers. Through the practice of Sudharshan Kriya Yoga the RSA (Respiratory Sinus Arrhythmia) was enhanced by calming down the participants. Other notable impacts of Susharshan Kriya are better sleep quality, trauma reduction and cortisol (stress hormone) regulation in the body. The participants were less reactive to provocation and there were fewer instances of anger outbursts. Cognitive functioning was enhanced which led to a balanced approach to social and interpersonal relationships leading to better coping with occupational stress, greater subjective well-being, increase in wellness and better adaptation to the pressures and stressors of life.

Keywords: stress, Sudharshan Kriya Pranayama, wellness

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In 1977, the goal of "Health for All" was promoted by the World Health Organization (WHO) promoted the goal of. This WHO initiative reaffirmed the importance of consolidating international and national policies for workplace health, the creation of a strong organizational culture, the development of positive work practises and health promotion, the deepening of occupational health care and services, the establishment of adequate support for occupational health, the development of science-based occupational health standards, the human resources development for occupational health, and the establishment of appropriate support for occupational health.

Employees' job performance is threatened worldwide by low subjective well-being and work abilities. Managing enhanced subjective well-being is paramount for job effectiveness. Employees who are healthy and safe are essential to the success of any organisation.

During the COVID-19 pandemic in 2019-20 and 2020-21, this stark reality was demonstrated; when lives were on the line, everything else faded into the background. In the context of the COVID-19 pandemic, few global mega trends emerged, which are as under:

- ➤ A flexible workforce
- Digitisation of business models
- ➤ Artificial Intelligence and Machine Learning
- ➤ Need for optimal mental health
- ➤ Subjective well-being
- Psychological counseling regarding effective coping strategies in the face of the grim scenario emerging out of the loss of significant others - be it relatives, friends or colleagues.

Various studies have shown that well-being and ill-being are not negatively correlated (Bradburn, 1969; Headey et al., 1984; Nagpal and Sell, 1985). This also holds true for job satisfaction and dissatisfaction; and related 'satisfiers' and 'dissatisfiers' (Herzberg, 1966).

According to (Grandall, 1976), the external validation of well-being scales has not been able to demonstrate that external raters can independently rate a person on both well-being and ill-being dimensions. It has been proposed that when evaluating the well-being of another person the same degree of sophistication are not applied which one uses while evaluating himself / herself.

Stresses of modern living & work life have induced several types of psychopathology among people from various walks of life. When people are unable to cope with the demands of the circumstance, they experience pressure. Some people are more likely than others to experience situational stress. Women have a higher likelihood of enduring psychological and emotional stress, whereas have a higher likelihood of experiencing bodily stress. Stress can have a variety of negative outcomes such as psychological (irritability, isolation, anxiety, anger, depression and moodiness), physiological (headache, insomnia, nausea, low energy, constipation, aches or pains) and behavioral (aggression, feeling of being lost, demotivated). Stress is the physical and psychological response of the human body to changes in situations and events in people's lives. These reactions are a result of people's attitudes and perceptions. A negative perspective on a situation causes distress, such as feeling overwhelmed or out of control and a positive perspective leads to eustress, on the other hand (positive stress). As a result, stress has both positive and harmful effects on people. Exercising, walking, pranayama, meditation,

going to the gym, listening to music, and playing games have all been suggested as ways to combat stress.

Selye (1976) has emphasized that stress is a risk factor for a variety of diseases and physical illnesses. In dealing with organizational stress, Quick and Quick (1984) proposed the theory of preventive stress management. One among top 10 occupational health concerns in the United States of America and across the Western developed countries in the 1980s was occupational stress. To address the issue of the stress epidemic, Sauter, Murphy, and Hurrell (1990) created a preventive agenda. Out of the ten major causes of mortality worldwide, seven have been related to stress, including cardiovascular/heart diseases (CVDs) being the primary cause of death in both men as well as women. Occupational or organisational stress has been recognized as a major risk factor for cardiovascular/heart disease.

#### **Stress Defined**

Stress has been defined in general as 'feeling of pressures' felt by the individuals in their lives. Work load stress is characterised as a unwillingness to report to work and a persistent sense of burden that is accompanied by physiological, psychological, and behavioural symptoms. Stress is a detrimental physical and emotional response that arises when a person's capabilities, resources, or needs do not suit the job requirements, causing occupational stress, which may give rise to poor health outcomes as well as physical injury. Stress is on a meteoric rise worldwide due to the pressures of the job, globalization, economic crisis and lack of equilibrium in the work-life balance. In practically every country in the world, this has had a negative impact on all vocations, as well as families and civilizations.

The reactions of the body to stress are three-fold as under:

### Alarm Reaction Stage

During this stage, the body recognizes and responds to stress initially and releases hormones that help to guard against the stressor.

### Resistance Stage

During this stage, the body goes on to battle the stressors as they continue to affect the individual. If the stressors keep persisting and the state of resistance is consistent, the individual may proceed to the third and ultimate stage of stress.

### Exhaustion Stage

During this stage, the mind and body are not able to make the required adjustments / adaptations any longer to battle the stressors, and this is accompanied by physical and/or mental exhaustion, which leads to the breakdown of the individual's stressor defenses, resulting in a variety of psychological, physiological, and behavioural issues.

# **Occupational Stress Defined**

Job stress, according to the National Institute for Occupational Safety and Health (NIOSH), is the detrimental physical and emotional reactions that arise when job requirements do not meet the workers' resources, talents, or demands. The interplay between a person and their work environment causes workplace stress. Furthermore, it has been discovered that stress can be caused by a variety of factors outside of the workplace, such as family troubles or poor mental or physical health.

Occupational stress has a direct impact on organisational dedication, as well as individual physical and psychological well-being. The American Institute of Stress (AIS), has outlined a few causes of workplace stress which includes long working hours, unfair treatment at work, not being recognised or rewarded for a job done well, job insecurity, office politics, steep targets, increased demands to do the task without adequate authority, and a lack of sufficient resources.

# **Basic Symptoms of Occupational Stress**

When employees are confronted with job demands that are out of sync with their knowledge, skills, or talents, and provide a challenge to their ability to cope, occupational stress arises. Irritability, headaches, eating disorders, hair loss, loss of sex drive, serious physical illness, increased heartbeat and blood pressure, increased palpitations and chest discomfort, muscle aches, breathlessness, sleeping problems, dryness of throat and mouth, frequent urination, sweaty palms, diarrhoea, stomach ulcers, indigestion, and other physiological problems are all caused due to occupational stress. Occupational stress causes irritable or aggressive behaviour, impulsive behaviour, eating more or less, easy distraction, speech problems, sleeping too much or too little, personality changes, grinding of teeth, burnout, nervous habits, increased errors, absenteeism, increased smoking and use of drugs and alcohol, lack of concentration, and other behavioural problems. Occupational stress causes a variety of psychological issues such as depression, anxiety, fear, tension, physical trauma, moodiness, memory problems, dissatisfactions, negativity, being panicky, poor judgment, worries and catastrophic thoughts, disorientation, over estimation of danger, sense of loneliness and isolation etc.

Workplace stress has been connected to the nature of the job., which includes increased work demands, inadequate freedom to control one's work, and insufficient capabilities to cope with deadlines, etc. Sources of occupational stress have been categorized as follows:

- The role in the organization
- Intrinsic to the job
- Interpersonal relationships at work
- Opportunities for career advancement
- The organizational structure and climate

- · Home-work interface
- Work-life balance

### Stress due to Organizational and Occupational Change

Employees are becoming increasingly stressed as a result of organisational and professional change. The pressures of daily life, coupled with globalization, competitiveness and the Covid-19 pandemic (with its associated ills) have unleashed numerous stresses in the lives of individuals.

According to NIOSH (2008), eliminating stressors through job redesign or the following organisational changes is the most effective strategy to reduce occupational stress.

- Less uncertainty about future work opportunities and career advancement.
- Providing a variety of possibilities for workers to socialise socially.
- Team processes or worker participation procedures to ensure that workers have adequate opportunity to participate in job-related decisions and activities.
- Providing staff with clear information about their responsibilities and roles within the organisation.
- Improvements in job design, participatory management so as to reduce turnover, absenteeism, and job stress.
- Making sure that the workload is appropriate for the workers' abilities and resources.

### Wellness and Lifestyle

#### Wellness:

- Wellness is defined as the suitable adaptation and optimal functioning of the body to cope
   with the demands of the environment that involves the whole person.
- o Wellness is the state of being healthy and being free from diseases.

o Wellness refers to the capability of individuals to lead a well-balanced and natural life.

# Importance of Physical Fitness & Wellness:

- Physical fitness and wellness is the need of the hour. It is all-encompassing and is equally important for sports person as well as non-sports persons.
- Physical Fitness and Wellness are necessary and effective for reducing the risk of heart and lung's diseases.
- ❖ Physical fitness leads to changes in one's lifestyle & increases the life span of individuals.
- ❖ According to several studies, children who develop physical fitness early in life are more likely to stay active in the future.
- ❖ Physical fitness & wellness enhances productivity & quality at work.
- ❖ It leads to effective stress management.
- ❖ It improves personal appearance and posture.
- ❖ It maintains the muscles which decreases the risk of injury.
- ❖ It leads to positive attitude & feelings of being highly motivated.

## Importance of Positive Lifestyle:

## 1. Longevity is enhanced

- a) Ageing process is slowed down
- b) Reduces risk of disease.

### 2. Level of energy increases

- a) Increases satisfaction
- b) Increases productivity

# 3. Feelings of depression are reduced

- a) Elevates the hormone levels in the body.
- b) Enhances positive thinking in individuals.

### 4. Increases the level of Physical fitness

- a) Leads to better co-ordination of mind & body.
- b) Increases strength, flexibility & endurance.

# 5. Improves posture

# 6. Self-confidence gets enhanced

### 7. Prevents various kind of Cardio-vascular diseases

- a) Leads to reduction of extra body fat.
- b) Strengthens the heart.

# 8. Helps in coping with stress effectively

## Sudharshan Kriya

By focusing the mind on regulated breathing, ancient Vedic literature have shown how to achieve meditative awareness. Medical research has accumulated compelling evidence that practising mindful or conscious breathing techniques has positive impacts on an individual's physical and mental welfare in recent years. Sudarshan Kriya (SK) is said to provide a wide variety of advantages on the human body in various ways. The vagal response is stimulated by SK, which helps to counteract the effects of stress. Sudarshan Kriya Yoga (SKY) is an exclusive yogic breathing technique that consists of multiple types of cyclical breathing patterns, fluctuating from slow and peaceful to quick and exciting, and has the potential to alleviate a variety of stresses, according to research. Individuals get a sense of wellbeing and well-being as their stress levels decrease. There is substantial evidence that Sudarshan Kriya Yoga has the potential to be a useful, low-risk, and cost-effective way for treating stress in people's life.

### **Sudharshan Kriya Defined**

Sudharshan Kriya is a Pranayam and breathing technique combo that begins with leisurely inhalation and expiration and develops to a succession of rapid breathing methods. "Sudharshan" means "good appearance" or "attitude," and "kriya" implies "purification." Sudharshan Kriya's entire method is focused on mind control through regulated breathing, resulting in improved overall wellness. The Bangalore-based 'The Art of Living Foundation' popularised Sudharshan Kriya. The SK practise is carried out in a controlled setting, with qualified teachers leading numerous sessions and guiding participants through a series of incremental steps.

## Sudharshan Kriya Yoga (SKY)

Sudarshan Kriya Yoga (SKY) is a cyclical controlled breathing exercise with ancient yoga roots that can help with depression and stress. The Art of Living Foundation teaches it, and it consists of four unique components.

- 1. **Ujjayi** or "Victorious Breath": This entails becoming aware of the breath's conscious contact with the throat. This slow breathing technique 4-4-6-2(count of 4 breaths of inhalation, count of 4 holding of the breath, count of 6 breaths of exhalation and hold 2) is one cycle. This is repeated several times. This cyclical breathing pattern fosters calmness and alertness.
- 2. **Bhastrika,** also known as "Bellows Breath," is a kind of breathing in which the air is inhaled quickly and forcibly at a rate of 30 breaths per minute. It generates euphoria, followed by a sense of serenity.
- 3. "Om" is chanted three times with very long expiration.

4. Sudharshan Kriya is an advanced style of rhythmic, cyclical breathing involving slow, medium, and fast breathing cycles. It is a Sanskrit name that means "correct vision via purifying activity." SKY has proven significant reductions in anxiety levels, increase of brain function, and resistance to stress during various anti-stress programmes in a variety of populations. Insomnia, one of the most frequent stress symptoms, responds effectively to SKY practise on a regular basis in the form of better sleep quality. After SKY training, posttraumatic stress disorder (PTSD) and depression ratings in tsunami survivors improved dramatically. SKY provided a "corrective emotional experience" to help people heal from trauma-related cognitive errors and severe emotional wounds. SKY addresses the cognitive and psychodynamic issues of loneliness, abandonment, and outcast sentiments by allowing participants to re-establish a loving, tolerant, and interdependent attitude in a community where they are accepted and respected.

# Effects of Sudharshan Kriya Yoga (SKY) on Occupational Stress

## Effects of Sudharshan Kriya on the Mind

When one concentrates on a task or a notion, the frontal lobes of the brain are engaged. The higher the concentration, the more the frontal lobes of the brain exert themselves, resulting in a stress and anxiety cycle. Unless one can calm down by managing one's mind, the agitated state of mind will keep one apprehensive about something or other. Sudharshan Kriya functions as a hyperventilator by speeding up the inspiration and expiration cycles, which reduces the impact of overstimulation on the frontal lobes and promotes serenity in the practitioner. The heart rate rises during inspiration and falls during expiration in typical breathing cycles. Respiratory Sinus Arrhythmia is the medical term for this (RSA). People who are depressed, anxious, or stressed have a low RSA. Sudharshan Kriya practise boosts RSA by calming the practitioner. Other significant effects of Sudharshan Kriya include improved sleep

quality in insomniacs, reduced trauma effects, regulation of stress hormone cortisol levels in the body, controlling the desire for tobacco, alcohol, and other substance abuse, less reaction to provocation, fewer angry outbursts, improved cognitive functioning, and a balanced approach during societal interaction.

On the physical level, medical study suggests that Pranayam, a key component of Sudharshan Kriya, modulates the body's neurophychological, endocrine, pulmonary, and antioxidant processes through controlled breathing techniques. The oxytocin hormone (feel-good hormone) levels rise as a result of the numerous mental and physical benefits. Antioxidants are the body's warriors who fight free radicals that are created as a byproduct of cell processes. When free radicals cannot be removed by antioxidants, either because antioxidant levels are insufficient or because free radical levels are excessively high, it can lead to a variety of health problems, including heart disease, lowered immunity, and even cancer.

Researchers have scientifically evaluated the purported therapeutic powers of yoga and meditation activities by looking at the impact of these techniques on psychological and physiological stress indicators. In an Indian firm, a field experiment shown that adopting yoga as a way of life can result in a considerable reduction in burnout in comparison to exercising. Similarly, using yoga and meditation techniques reduced pulse and systolic blood pressure significantly. Various styles of meditation have been established to be effective in reducing anxiety, stress, improving coping mechanisms, reducing mood disturbances, improving sleep, and improving mental health. Daily session of meditation and practice of Sudharshan Kriya can cause a significant decrease in anxiety levels and salivary cortisol. This also leads to better heart health, lung/ respiratory health, better immunity to fight against various infections and/ or viruses.

In the last decade, extensive study on SKY and its benefits has revealed that SKY practitioners have higher antioxidant levels, positive impacts on immunity, ageing, cell death and stress regeneration, improved sleep quality, and a considerable reduction in depression. Anxiety, stress, and depression were also shown to be significantly reduced in SKY practitioners.

### Importance of Sudarshan Kriva

The practise of SKY on a consistent basis has been shown to improve both physical and mental health. Discord and illness result from a loss of synchrony between nature and an individual. The health equation is restored through the practise of SKY, which restores a harmonious flow of energy between the mind, body, and nature. Sudharshan Kriya was created to bridge the gap between the mind and the outside world through conscious breathing control. Sudharshan Kriya has been reported to be useful in dealing with symptoms of post-traumatic stress disorder, anxiety, depression, trauma, and bipolar disorder, as well as physical health conditions such as high cholesterol, high blood pressure, and endocrine system and immunological disorders.

According to Sauter et al. (1990), job stress can be prevented to a considerable degree by suitable change/ modification in the function of the organization. Few suggestions in this regard are as under:

- Ensure that the workload is in line with the workers' capabilities and resources.
- Design jobs to provide meaning, stimulation, and opportunities for workers to use their skills.
- Clearly define the workers' roles and responsibilities.
- Give workers the opportunities to participate in decisions making relevant for their jobs.

- Improve the communication so as to reduce the uncertainty about career development and career prospects.
- Provide opportunities for social interaction among workers.
- Establish work schedules which are compatible with the demands and responsibilities outside the job.

## Impact of Sudharshan Kriya Pranayama

In a study conducted by AIIMS, New Delhi, it was discovered that Sudharshan Kriya practitioners had increased antioxidant levels and less DNA and cell damage. Sudharsan Kriya, when practised regularly, increases lung capacity and pulmonary functions, especially in those with COPD and asthmatic discomfort. In Maharashtra, a medical research study was done to investigate the effect of Sudharshan Kriya on practitioners' cholesterol levels, which were compared to the lipid levels of similarly aged control groups. In comparison to the control groups, Sudharsan Kriya practitioners had reduced levels of total cholesterol and LDL cholesterol.

Sudharshan Kriya's spiritual awakening of the soul is one of its cornerstones. The practitioner's sense of oneness with the cosmos is claimed to free a person from all emotional and physical ties that bind them. According to members of the Art of Living, once a practitioner has learned the kriya and practises it on a daily basis, the person's entire life undergoes a stunning shift. Through strong breathing, negative thoughts are pushed out of the system, and optimism pervades the senses. This brings the practitioner to a state of oneness with nature, which is essential for living a balanced existence.

Sudharshan Kriya has a wide range of impacts that span the physical, emotional, spiritual, and societal realms. People have been able to recognise difficulties that were preventing them

from living their life to their greatest potential via consistent practise of the Sudharsan Kriya, allowing them to heal themselves. Sudharshan Kriya, on the other hand, cannot be learned on one's own. For the kriya to offer all-around and long-term advantages, one must first learn it from a trained teacher and then practise it genuinely and religiously. Sudarshan Kriya and the breathing practises that go with it, known as SKY and taught through The Art of Living programmes, have been shown to improve brain, hormone, immunological, and cardiovascular systems in people.

Sudharsan Kriya Yoga relieves stress, sadness, anxiety, and post-traumatic stress disorder (PTSD) and improves mental and physical well-being, according to published research. SKY's impacts have also been shown to extend all the way down to the molecular level, to our DNA. SKY has been proven to offer a wide range of advantages in over 100 independent research conducted on four continents and published in peer-reviewed journals. According to research on the Sudarshan Kriya's effects on anxiety, stress, sadness, and overall health, it "shows promise in providing relief for depression," according to a Harvard University health publication and the Yale College Emotional Intelligence Project.

# The Study

The Art of Living Center at Bengaluru conducts several courses wherein the chief input is the practice of the Sudharshan Kriya Pranayama along with other relevant inputs. Hundred Senior Officers of the Government of India of various Departments / Ministries participated in the programme, 'Building competencies for personal excellence' at Bengaluru in 2021. Very positive feedback about the programme from such Officers were received and analysed. Few such feedbacks are as under:

### **Feedback and Testimonials**

- IAS, AGMUT, 1992 Batch: "Very refreshing and rejuvenating. Journey to the self has begun. The program will help in my work life in stress management, interpersonal relations and expanding the time available for productive work."
- 2. **IAS, PB, 2004 Batch**: "The program has been a beautiful journey inward. It has helped me explore myself, making me aware of my emotional stability, my mental and physical strengths, and weakness. It has helped me to take an objective view of myself. I feel calmer, stronger and ready to take responsibility for my actions and thoughts."
- 3. **IPS, UP, 1995 Batch**: "This 4 ½ day program put my life in a long-term perspective. I got an insight into where my life is headed, how I am performing as leader in my organization & how to better my performance both within the organization and at home. It rejuvenated and recharged me to handle various challenging assignments without getting stressed."
- 4. **IAS, MP, 1992 Batch**: "Learnt a lot especially ancient wisdom to keep body and mind healthy. Well designed and exceedingly well organized. A perfect ten. The program will help to increase my productivity; team work; EQ and also definitely my health."
- 5. **IRS 1992 Batch**: "The programme heightened my capabilities to handle the stressors of life effectively. It charged me enormously. The enriching contribution of the practice of SKY is a multi-dimensional one which would lead to better efficiency, productivity, improved interpersonal relationship, team spirit, stress management and wellness. My subjective well-being is on a higher pedestal."

(Art of Living Instructor)

6. "For starters, my migraines completely disappeared. I have not had a single attack in the last 12 years. But I feel that this is only a side-effect because I have grown in different scales since then. My whole perception and perspective on life has changed. I now look at problems as opportunities to bring out my best. I have learnt to drop anger. The course has more importantly, taught me to be free and comfortable with myself. This knowledge is simple yet deep and can be accepted by everyone. I want to bring this life transforming experience to as many people as possible. My life becomes worthwhile even if I take to just one person."

The programme "Building Competencies for Personal Excellence was an experiential learning programme with yoga, capacity, building, nature walks, music and meditation. This unique programme fostered wellness, health and happiness, which is a key prelude for occupational health of the Government Officers. The enriching contribution of the training programme led to personal improvement of the Government Officers in multidimensional aspects of body, mind and spirit leading to better efficiency, productivity, improved interpersonal relationship, team spirit and stress management which would enable their organizations to achieve its goals / targets / vision & objectives more efficiently and effectively in a timely manner.

#### Conclusion

The advantages of programmes that include pranayama, asanas, and meditation must be documented through controlled clinical trials. Sudarshan Kriya Yoga is a possibly useful, low-risk aide for the treatment of stress, anxiety, PTSD, depression, stress-related physical disorders, and substance misuse, as well as for the rehabilitation of criminal offenders, according to study. Yoga has been shown to improve well-being, mood, attention, mental focus,

and stress tolerance in the past. For the safe and successful practise of yoga and Sudharshan Kriya Pranayama, proper training by a trained teacher is required.

The programme 'Building Competencies for Personal Excellence' was an experiential learning programme with yoga, capacity, building, nature walks, music and meditation. This unique programme fostered wellness, health and happiness, which is a key prelude for occupation health of the Senior Officers of the Government of India. The enriching contribution of the training programme led to personal improvement of the Government Officers in multidimensional aspects of body, mind and spirit leading to better efficiency, productivity, improved interpersonal relationship, team spirit, and stress management which in turn enhanced the wellness and enabled such Officers to effectively cope with the demands of the job and occupational stress. This in turn would enhance the productivity of the employees and enable their organizations to achieve its goals / targets / vision & objectives more efficiently and effectively in a timely manner.

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