

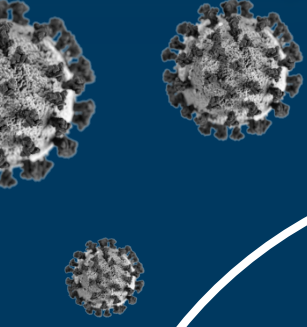


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## Editorial

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Dev Sanskriti Interdisciplinary International Journal (DSIIJ) is completing its 8 years of Journey. The journal is published by Dev Sanskriti University and is globally bringing quality conscious researches done on scientific and spiritual aspects of Dev Sanskriti (Divine Culture).

In the first half of year 2020, the whole globe has taken a back with the novel corona virus (COVID19) pandemic. It has affected every dimensions of human society and the whole world is collectively fighting the situation. During the time of crisis, this special issue of DSIIJ has attempted to contribute the awareness in the society through bringing researches on the indigenous techniques such as Yoga, Yagya, psychological tools along with focus on the new strategies in the field of journalism and tourism with ancient Indian wisdom for helping human civilization.

The need of time is immune boosting approaches and mental health care approaches. Serving the need, the vast literature of YugRishi Pandit Shriram Sharma Acharya on health is presented in the current issue, along with research articles on possible utility of Yoga for the same especially utilizing *Hatha-yoga* for reducing *Kaph* indicating symptoms during pandemic. Besides, the role of positive journalism and spiritual support for reviving the tourism sector is also covered in this issue along with technological approaches like Artificial intelligence by the world. Also, the pandemic has brought a big halt on the world economy, questioning its model's sustainability; hence, demanding a glimpse on the ancient Indian model of rural economy recommended by Mahatma Gandhi as a potential green-skill-based entrepreneurship solution for the globe, considering harmony with nature.

With true pleasure, through the special issue of DSIIJ on COVID19, it is a small contribution of Dev Sanskriti University for the betterment of the world in the present crisis.

**Dr. Chinmay Pandya**

Pro Vice Chancellor, Dev Sanskriti University

# Index

## Research articles

Intuitive Vision and Indigenous Immunity Boosting approaches for COVID19: From the Literature of Pandit Shriram Sharma Acharya

*Rahul Kumar Satuna, Aradhana Negi, Ravindra Satuna.....01-15*

8 fold Indigenous Approach for Improving Psycho-immunity: With Special reference to COVID19 pandemic

*Piyush Trivedi.....16-21*

Yoga for physical and mental health – Can possibly aid in prevention and management of COVID19 infection?

*Nitesh Sharma .....22-31*

हठयौगिक ग्रंथों में कफ संबंधी दोषों को दूर करने के लिये वर्णित यौगिक विधिया : कोविड-19 महामारी के विशेष संदर्भ में

*इन्द्राणी त्रिवेदी, पंकज कुमार त्रिवेदी .....32-38*

आपदाकाल में सकारात्मक संचार : कोरोना संकट काल के विशेष संदर्भ में एक अध्ययन

*दीपक कुमार, लक्ष्मी कुमारी.....39-47*

Addressing the effect of COVID19 pandemic on the Tourism Industry in Haridwar and Dehradun Districts of Uttarakhand, India

*Ashish Kumar, Ajay Bhardwaj, Umakant Indolia.....48-55*

## Perspective

Role Artificial Intelligence Technologies Played Combating COVID19 Pandemic

*Gopal Krishna Sharma and Anikesh Kumar.....56-60*

Can Ancient Science And Wisdom Of Yagya Therapy 'With Herbs Having Immune Boosting and Antiviral Properties' Aid In The Fight Against COVID19?

*Ruchi Singh.....61-68*

## Opinion

Sustainable Rural Economic model of India – an emerging economy model for the world in the post covid-19 pandemic era

*Durgesh.....69-71*

Research Article

## Intuitive Vision and Indigenous Immunity Boosting approaches for COVID19: From the Literature of Pandit Shriram Sharma Acharya

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**Abstract.** The need of the hour, in COVID19 crises, is to take care of the health from all aspects. A huge population of the world has not been only infected by Corona Virus but also a considerable number of persons have been deceased due to the acute symptoms of COVID19. As far no vaccine or approved medicine for COVID19 has been found by any country to date. So, the only weapon left to break the chain of the infection is to follow the precaution strategy given by various health experts. Along with precautions such as social distancing, wearing masks and gloves etc., the health experts have also revealed that weak immunity is the prime factor to come in the grip of the Corona Virus. In this research paper, the intuitive vision and indigenous immunity-boosting approaches from literature of visionary scholar Pandit Shriram Sharma Acharya from India, relevant to the pandemic state, have been compiled. The reason to focus on the writings of Pandit Shriram Sharma Acharya is his featured knowledge of the health sector. One hundred twenty-five books out of thirty-two hundred books written by him are focused on various aspects of human health, which actually, is a boon for humanity and society.

**Keywords.** COVID19, Corona Virus, Health, Immunity, Indigenous, Intuitive Vision, Pandit Shriram Sharma Acharya



## Introduction

In the past six months of the year 2020, the pandemic named COVID19 has slowly engulfed our entire planet. The whole world is trying to handle this pandemic using different ways. No other disease or infection had widespread so fast and made the world hostage in the current era. The governments of the different countries have announced various precautions directed by the World Health Organization (WHO), one of the biggest health organizations of the world, and other health experts. Citizens have been strictly advised (in many countries) to stay at their homes.

It is the first time in the history of this century when all the modes of transport (except medical and essential services), markets, societies, multiplexes and theaters, institutions such as educational, administrative, organizational, and other such public places are closed for a long time (also still staying closed as per guidelines of the Government). All of this was to control widespread infection of COVID19, and in the hope that would reduce the infection and death toll.

At the time of writing of this research paper, the WHO described the latest statistics of COVID19 in India as ‘In India, starting from Jan 30, till 10:34 am CEST, 9<sup>th</sup> July 2020, there have been 767,296 confirmed cases of COVID-19 with 21,129 deaths’.

An advisory released by the Ministry of AYUSH of India says that ‘enhancing the body’s immunity plays an important role’ (1). So, in the support of such advisories for COVID19 from Ministry of AYUSH, Ministry of Health and Family Welfare, and other health experts, the following preventive tips have been given: 1) Maintaining social distancing, 2) Taking care of hygiene, 3) Adopting various methods to boost immunity

The third preventive tip is considered as a major preventive step to stay safe and secure in all aspects. The cause to consider immunity-boosting as the most important tip to fight with Corona Virus is the notion of the human immunity system. Immunity

system is the natural prevention or natural defense system of humans which allows the body to strengthen itself and remove foreign bodies. In this research paper indigenous system for improving human immunity is described in details.

Man's right to be healthy is a natural phenomenon. For overall health, many great traditional scholars, visionary saints and sages, along with modern medical science-based health experts, have given need-based observations, explanations, activities, practices, suggestions, etc. to humanity. Particularly in India, it has always been the land full of distinguished saints and sages who possessed wisdom and knowledge. Ayurveda, the oldest medical system as well as the base of modern medical science (most of the pharmaceutical drugs have plant origin) has been found in India. Since more than past 3000 years, mankind is being benefited from the tradition of holistic health, wellness, and healing given in Ayurveda. It’s based on a belief that a delicate balance of mind, body, and soul drives you to complete health and wellness. A famous statement of Ayurveda says ‘*Jivem Sharadaha Shatam*’ (जीवेम शरदः शतम) (2) which means our life goes on for a hundred years.

In this research paper, the intuitive vision and immunity-boosting approaches, significant to the COVID19 situation, has been given by compiling the literature of renowned visionary scholar sage Pandit Shriram Sharma Acharya. The reason to focus on the writings of Pandit Shriram Sharma Acharya is his featured knowledge of the health sector. One hundred twenty-five books out of thirty-two hundred books written by him are focused on various aspects of human health, which actually, is a boon for humanity and society.

Researching the work of Pandit Shriram Sharma Acharya, the paper has been organized into following 7 sections: 1) health, 2) the origin and symptoms of the Corona Virus, 3) the relation of immunity and COVID19, 4) the personality and work area of Pandit Shriram Sharma Acharya, 5) the intuitive vision of Pandit Shriram Sharma Acharya



regarding the pandemic state, 6) the indigenous immunity-boosting approaches from the literature of Pandit Shriram Sharma Acharya, and 7) discussion for the researched content.

### **Health**

A man is a foundational unit of any society, and to have a good society, the people of society must be healthy. The definition of health by the pioneer of Ayurveda, Maharshi Sushrut, in twentieth-century stated “समदोषः समग्निश्च समधातु मल क्रियाः। प्रसन्नात्मेन्द्रियमनाः स्वस्थः इत्यभिधीयते। (सुश्रुतसंहिता 15/48)”.

The above shloka from Sushruta Samhita (15/48) refers that *vata*, *pitta*, *kapha*, fire, *rasa-raktadi*, *dhatus*, *vinn-mutraadi mala*, all of them should be in perfect balance in the human body. Health can be achieved if all these physiological parameters are in equal balance with a healthy mind, intellect, and all senses (3).

Health definition in Ayurveda included status of physical, mental, emotional and inner well-being (4), which WHO also accepted in their definition of health, which is also described in details below with respect of indigenous perspective. In addition, WHO also depicted health status as a “state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity” (5).

### *Physical Health*

Physical health is defined as “the condition of your body, taking into consideration everything from the absence of disease to fitness level” (6). It covers the balance of all the existing physiological systems in the body such as metabolism, its composition, respiratory system, circulatory system, etc. (7).

### *Mental Health*

Mental health is a “dynamic state of internal equilibrium which enables individuals to use their abilities in harmony with universal values of society” (8). It deals with the interpersonal relationships of a person. Factors such as harmony in ideology and deeds, perception of conditions, recognition capability and understanding, attitude

towards favorable and unfavorable moments, etc. determine the mental health of a person.

### *Social Health*

Social health involves “one’s ability to form satisfying interpersonal relationships with others” (9). It also covers one’s aptitude to adapt comfortably to different social situations and act appropriately in a variety of settings.

### *Spiritual Health*

Spiritual health deals with discovering satisfaction and happiness in life. According to Taekema (10), spiritual health is “...the ability to develop our spiritual nature. This would include our ability to discover and articulate our basic purpose in life, learn how to experience love, joy, peace, and fulfillment and how to help ourselves and others achieve their full potential” (10). It is considered as a link between the physical, mental, and social health.

The above four aspects of health are intertwined with each other in such a way that no one can segregate them when it comes to live a life. Hence, immunity of health should consider immunity in totality for all these aspects, which are described in details as follows.

### **Corona Virus and its Symptoms**

On 11<sup>th</sup> March 2020, the Corona Virus, causing COVID19, has been declared as a pandemic by the World Health Organization (11). Formally an epidemic is defined as “a state that occurs worldwide, or over a very wide area, crossing international boundaries and usually affecting a large number of people” (12). Based on it, WHO has redefined the definition of epidemic as the pandemic state in which a disaster for the health sector spread around the world at the same time. WHO has provided all scientific details of the Corona Virus, epidemic, and pandemic (13). At the time of the declaration of the pandemic, the WHO had found a total of 118,000 infected cases in 114 countries whereas 4,291 people had died due to Corona Virus.



The Corona Virus was earlier unidentified and first appeared in the Wuhan city of China in December 2019, from where it spread in the world. Now the virus had created a situation where hundreds of thousands of lives are infected and more than half of million lives have passed away. For millions of other peoples, who have not fallen ill with this disease, their routine lives have severely been affected.

The first case of COVID19 in India was reported on 30 January 2020 in Kerala state. From 25<sup>th</sup> March 2020 onwards, India has faced four lockdowns phases with variety in guidelines. The lockdown can be defined as “a situation in which people are not allowed to enter or leave a building or area freely because of an emergency” (14).

In medical terminology, the Corona Virus variety referred as SARS-CoV-2 infection. This infection was defined into three stages – “Stage I, an asymptomatic incubation period with or without detectable virus; Stage II, non-severe symptomatic period with the presence of virus; Stage III, the severe respiratory symptomatic stage with high viral load” (15). Corona Virus symptoms given by the WHO narrates that ‘COVID-19 affects different people in different ways. The most common symptoms of COVID19 are fever, dry cough, and tiredness. Other symptoms that are less common and may affect some patients include aches and pains, sore throat, diarrhea, conjunctivitis, headache, loss of taste or smell, a rash on skin or discoloration of fingers or toes are the less common symptoms. The serious symptoms of COVID19 include difficulty in breathing or shortness of breath, chest pain or pressure, loss of speech or movement (16).

### **Immunity and COVID19 crisis**

Immunity is the natural defense system of the human body fights with a particular infection by the action of specific antibodies and alerted white blood cells. Now, in the COVID19 crisis, it has also clinically proved that the human immune system is playing a vital role to avoid the spreading of the Corona Virus. In the study presented by Shi (17), the immune

response formed by SARS-CoV-2 infection is two-phased. During the incubation and non-severe stages, a specific adaptive immune response is required to eliminate the virus and to preclude disease progression to severe stages (17). Many health experts revealed that weak immunity is the prime factor to be affected by the Corona Virus.

To date, there is no certified vaccine or drug available for COVID19 all over the world. So, the only weapon left to break the chain of the infection is to follow the precaution strategies given by various health experts. To prevent the spread of COVID19, the WHO has released the preventions; some of them are as following - cleaning hands frequently and thoroughly, usage of soap and water or an alcohol-based hand rub, maintenance of safe distance from anyone who is coughing or sneezing, wearing a mask when physical distancing is not possible, avoiding to touch eyes, nose, and mouth, covering the nose and mouth with bent elbow or a tissue while coughing or sneezing, to stay at home, etc. (16)

In addition to the precautions given by WHO, Indian government has also considered the remedial strategies of Ayurveda. The advisory notice released by the Ministry of AYUSH of India has mentioned that “...the simplicity of awareness about oneself and the harmony each individual can achieve by uplifting and maintaining his or her immunity is emphasized across Ayurveda classical scriptures” (1).

On 14 April 2020, the Government of India advised their citizens to follow the advisory which included the recommendations from sixteen eminent *Vaidyas* (Traditional medicine scholar and Ayurveda experts) of India. The recommendations were as following: 1) General Measure e.g. drinking of lukewarm water, practicing yoga, pranayama, etc., 2) Ayurvedic Immunity Promoting Measures e.g. taking *Chyavanprash*, herbal tea, etc., 3) Simple Ayurvedic Procedures e.g. nasal application etc., 4) Treatment for during dry cough, sore throat, 5)





Herbal concoction of *Tulsi*, *Dalchini*, *Kalimirch*, Dry Ginger, etc.

In addition to these suggestions, the Government of India (also some private organizations) is continuously spreading awareness among the citizens about preventions for COVID19 through communication technologies such as caller tunes in different Indian languages, Radio, TV, and multimedia advertisements. A special mobile application named *AarogyaSetu* was also launched by the Government of India on 2 March 2020 for accessing the health status, COVID19 statistical updates, media news, etc. The application has amassed over twelve crore downloads since its launch back in April 2020. Many cases infected from the Corona Virus in the world were benefited or recovered using quarantine approach. India is at fourth rank after the USA, Brazil, and Russia in recovery (as per COVID19 statistic on 12<sup>th</sup> June 2020 by WHO). There is presently no clear indication that people who have recovered from COVID19 infection have antibodies to fight for re-infection i.e. second infection.

**Pandit Shriram Sharma Acharya**

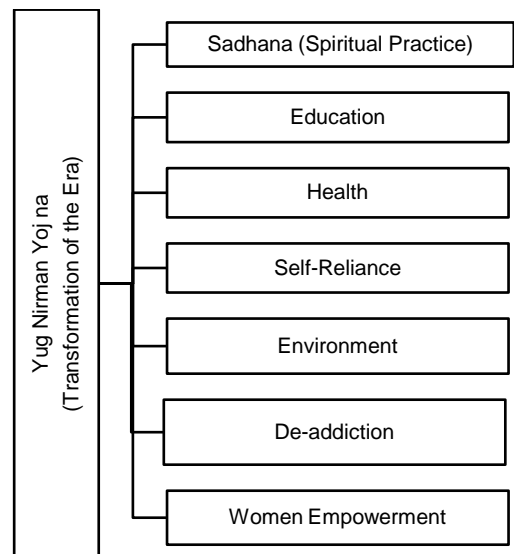
The entire life of Pandit Shriram Sharma Acharya has been dedicated to the service of humanity. He was a saint, visionary, scholar, and social reformer. He was born on September 20, 1911, in a village named Anwalkheda in Agra District of Uttar Pradesh, India. His life was destined for the emergence of a new era of universal peace and harmony.

At the age of fifteen, his master initiated him in practice of ‘Gayatri sadhana’. He took part in the non-violent fight for India’s independence as a volunteer and went to jail several times as part of the freedom struggle. He has given a 100 points agenda for *Yug Nirman Yojna* (Transformation of the era) for social, intellectual, and spiritual evolution through social and moral upliftment.

He lived a simple, disciplined life full of devout austerity, visited the Himalayas several times and

attained spiritual eminence and foresight. Based on his work for humanity, he was called with different titles of *Yugdrishta* (Visionary of the era), *Yugrishi* (Sage of the era), *Acharya* (A teacher, instructor or preceptor who edifies the learners towards the real knowledge), *Vedmurthy* (Expert of Vedas), and *Taponishtha* (Established in austerity).

Many great leaders and saints of India have praised him for his commendable work for global humanity. Ex. President of India (25 July 1992 – 25 July 1997), Dr. Shankar Dayal Sharma once said about Pandit Shriram Sharma Acharya that “AcharyaJi has shown the path to social change by giving logic and words suited to the modern era and for these logics and words the generations will remain grateful to him” (18). When the entire literature Pandit Shriram Sharma Acharya was presented to the Ex. President of India (13 May 1962 –13 May 1967), Dr. Radhakrishnan said - “If I had got this knowledge a few years ago, I probably would not have entered politics and would have been learning spiritual philosophy by sitting at the feet of Acharya Shri” (18).



**Figure 1.** Seven Campaigns of *Yug Nirman Yojna* (transformation of the era) given by Pandit Shriram Sharma Acharya

Figure 1 presents the seven campaigns for the 100 points *Yug Nirman Yojna*. It can be easily



understood from Figure 1 that he has considered health as a prime field, where awareness is highly required. The health campaign inspired the authors of the current research paper to explore his vision in the emergency of COVID19.

His whole literature is scientific and also embraces the formulas for the holistic development of humanity. He has presented the solutions to the challenges of 21 Century and positively announced the 21 Century as a bright future. He has translated the entire Vedic literature in the Hindi language and more than thirty-two hundred books have been written by him on all aspects of life. His writings encompass far-reaching, sagacious, and feasible solutions to the innumerable problems of today. He has written a range of books on various aspects of human health. The grand contributions other than his literature are Gayatri Pariwar fraternity, Shantikunj Ashram (an academy for moral and spiritual awakening), Brahmavarchas Research Institute, Akhand Jyoti Sansthan.

### **Intuitive Vision about Pandemic**

Pandit Shriram Sharma Acharya was a great seeker of Gayatri. He has done twenty-four *mahapurashcharana* (spiritual practice of recitation of 2.4 million 'Gayatri Mantra' per year with ascetic life for 24 years). He has envisioned the present time situation of pandemic based on his intuition in his literature, which is described as following.

In the book entitled 'Gayatri Ka Suryaupasthan' (19) written in 1979, he has inscribed the following statement –“अगले कुछ दिन में बहुत तीव्र और शीघ्रान्तिशीघ्र परिवर्तन होंगे, योतो सूर्य कलंको (सनस्पॉट्स) के कारण पृथ्वी में प्राकृतिक परिवर्तन का क्रम ११ साल बाद आता है, पर किन्ही अज्ञात कारणों से अगले दिनों इन नियमों को तोड़कर सूर्य पृथ्वी में परिवर्तन लायेगा. इसमें वृष्टि, अनावृष्टि, सुखा, अकाल, ओलावृष्टि, आदि ही नहीं युद्ध और महामारियों के प्रकोप भी होंगे” (गायत्री का सूर्योपस्थान, पृष्ठ ३९)”. It translates, 'Very fast and quick changes will happen in the next 'few-days' (upcoming time). Normally, the order of natural changes on the earth based on Sun *Kalank* (Sunspots) comes after every 11 years, but due to some unknown reasons, by

breaking these rules, the Sun will bring changes on the earth; it will not only have rain, dryness, famine, hail, etc., but also the outbreak of war and pandemics' (Book – 'Gayatri Ka Suryaupasthan', Pg. no. 39) (19).

It can be seen from the above statement that Pandit Shriram Sharma Acharya has predicted about the pandemic in 1979. He has also explained that these changes would occur due to the unknown activities. These days, since December 2019 to date, the whole world is going through this epidemic.

Another reference for the pandemic was mentioned in the book named as 'Yug privartan Kaise Aur Kab?' (Transformation of era: How and When?) (20), written in 1984. He has envisioned and wrote the following statement: “अगले दिनों में चीन शास्त्र-युद्ध की अपेक्षा कीटाणु-युद्ध में विश्वास रखेगा तथा इसमें असंख्य प्राणियों की मृत्यु हो जाएगी. चीन के विरुद्ध रूस, अमेरिका एक होकर लड़ेंगे. (युगपरिवर्तन कैसे और कब ? पृष्ठ २७३)”. It translates –'In the upcoming time, China will believe in Germ-war (biological-war) instead of Armed force-war and innumerable lives will be lost in it. Russia and America will together fight against China' (Book – 'Yug privartan Kaise aur Kab?' (Transformation of era: How and When?) (20) (Pg. no. 273).

In his literature at various places, Pandit Shriram Sharma Acharya has clearly mentioned challenging time for humanity from transition of 20<sup>th</sup> to 21<sup>st</sup> century and afterwards coming of bright future of 21<sup>st</sup> century. Here, anecdotally, selected above statements have mentioned. These have also taken attention of scholars when Corona Virus outbreak happened in China mainland and first identified in China. Both the statements made years ago by Pandit Shriram Sharma Acharya, which have now proved to be true in 2019-2020 indicating his intuition and visionary power.

### **Indigenous Immunity Boosting approaches from the literature of Pandit Shriram Sharma Acharya**

The Vedic philosophy of life is the basic of the indigenous concept of health and immunity. The



basic foundation of the indigenous health approach is Ayurveda and the lifestyles propounded by ancient sages. In Ayurveda, holistic health means the total absence of three types of grief i.e. divine, somatic, and lack of material suffering. Pandit Shriram Sharma Acharya has also considered the indigenous approach of health as the most important scheme to develop overall health (the health of the overall ecosystem). In his literature, for the prevention of all miseries, he believed that a well-organized lifestyle, cooperating nature, living in the presence of the sun, and dieting are the main ones.

*Arogya* (absence of illness) is to 'run life's order in an orderly manner. Only a healthy body can be able to increase the pleasures of happiness, peace, and progress' (20). In case of normal health issues, the naturopathy-based approaches such as fasting, rest, proper intake of water and sunlight, cleanliness, etc. should be made. In case of severity of the disease, the treatment should be based on medicinal-plants. For treatment, such medicinal-plants are used, which have sedative properties with no-known adverse effect (22).

He has described the vigorous role of the sun in human immunity. In a book entitles 'Aksun Swasthya Prapti Hetu Ek Shashwat Rajmarg', it translates 'An eternal highway for complete health', he has mentioned that *Surya* (Sun) and *Pawan* (Air) are the best physicians (boost immune system). They have the extraordinary quality of healing and prevention of sickness or disease. Thinking about the above fact, everyone should adopt a policy of maximum contact with them in pure form. From food to the skin, clothing, equipment, etc. all should be given the equal opportunity to take full advantage of their company (23). It can be easily understood that he is indicating to get benefits from sunlight and pure air for boosting our natural defense system.

In addition to these, Pandit Shriram Sharma Acharya has also mentioned different aspects to increase immunity for all aspects of Health in various books. He described the following indigenous schemes to increase immunity as follows:

### *For Physical Health*

#### 1. *Pragya Yoga Exercise*

*Pragya Yoga Exercise (Pragya Abhiyan ka Yoga Vyayam)* is a wonderful combination of *asana*, *pranayama*, *dhyana*, and *mudra* (24). The prime purpose of *Pragya Yoga Exercise* is to enhance the power of both mind and body. In the *Pragya Yoga Exercise* package, there are a total of sixteen *asanas*, which are practiced with the letters of Gayatri mantra with proper breath-in and breath-out. Every letter of Gayatri mantra is represents specific philosophy, hence while practicing this Yoga, naturally meditation is also achieved when the Gayatri mantra is recited with meaning in mind.

#### 2. *Prana-akarshan Pranayama*

*Prana-akarshan Pranayama* enhances the immunity of humans by all means. Pandit Shriram Sharma Acharyahas said that "*Prana-akarshan pranayama* is beneficial in developing the capacity of heart and brain as well as it is beneficial in colds, coughs, breathing and tuberculosis" (25). The heart and brain are the two major organs within the body on which the vitality and mental health of a human being is dependent. *Prana-akarshan Pranayama* is not merely breathing exercise but it involves feeling and imagination of absorbing *Prana* (vital energy) from space to be full of it along with an exercise for the refinement and enhancement of specifically both these organs.

#### 3. *Kalpa-Chikitsa* – body purification technique

*Kalpa-Chikitsa* is a traditional scientific technique to promote overall health. It is having the body purification processes, which are not only beneficial for curing diseases, but also for improving immunity (26). In this approach, the body is cured only by frequent systemic consumption of any common plant and food items. The usage of specific plant and food items depends upon the requirement of body. The effect of *Kalpa-Chikitsa* on the body is long-lasting. Besides, it brings changes in life-style and food eating pattern which protects from potential future disease or ailments.



### *For Mental Health*

#### 1. *Dhyan* (Meditation)

One definition of meditation given by Pandit Shriram Sharma Acharya is the bathing of mind in noble and pure thoughts. He has also mentioned meditation as a source of mental energy. It does not only delight the human mind and but also rejuvenates it. He has given very unique and different types of meditation techniques. For example - a) *Teen Shariron ka dhyan* (meditation of three bodies) (27), *Panchkosh ka dhyan* (meditation of five element (treasuries) of the human body) (28), *Amritvarshadhyam* (mediation of showering of nectar/energy) (29), *Jyoti Avtran Sadhana* (meditation of descend of divine light) (30), *Nad Yoga* (Yoga of divine sound through specifically recorded instrumental musical) (31), etc.

#### 2. *Swadhyay* (Study of Self)

As the name implies, *Swadhyay* is the process of contemplation of self. *Swadhyay* is a key solution for all subjects of our life. A person who does self-study is a successful doctor of his soul. *Swadhyay* means the study of such literature that removes our worries, resolves doubts and dilemmas, brings harmony and auspicious thoughts in the mind, and makes the soul feel at peace (32). नित्यंस्वाध्यायशिलश्चदुर्गान्यातितरन्ति॥ (शांतिपर्व, महाभारत); the shloka from Chapter Shantiparv of Mahabharata states: “A person doing self-study regularly overcomes with sorrows” (32).

#### 3. *Vyast-RahenMast-Rahen* (Stay involved- Stay happy)

Pandit Shriram Sharma Acharya has propounded theaphorism, *Vyast-RahenMast-Rahen*, which serves as excellence solution for enhancing the mental health in the modern hectic world. There is no doubt that an empty mind is the devil's house but when this empty time is well-managed, it always came up with extraordinary results. Emptiness remains negative until it is tied into the outline of a program. Therefore, he has given the aphorism (sutra) to Stay healthy, Stay involved, and Stay happy (33). This formula is guiding us that we should not have a lack of content in our life. When someone is busy, he/she

does not have time to think negative. So, in applied form, in the crisis of COVID19, this sutra is inspiring us to be healthy by staying busy (well-planning of work schedule) and clam in all situations.

### *For Social Health*

For social health, ‘Salaahlen-Samman den, Sukh Baateyn- Dukh Bataayen’, and ‘Mil-Baantkar Khayen’ are the key aphorisms for sensibly interacting with our society. The application of these aphorisms enlarges one’s social circle and ultimately become the base of a healthy society. These aphorisms are practiced by the individual, but the expression of success of these exercises is always in the form of better co-operation with family and society.

#### 1. *Salaah len- Samman den* (Take advice- Give respect)

Pandit Shriram Sharma Acharya has described this formula as an important aspect of healthy social life. In the COVID19 emergency, it is our prime duty to listen and welcome the opinions of health experts and take their advice (34). In this pandemic, we must support the commands and recommendations from our administration also. Cooperation brings success in any work quickly. By adopting this sutra we can practice thinking deeply about the suggestions given by others which we sometimes ignore due to our issues.

#### 2. *Sukha Baateyn – Dukh Batayen* (Share your happiness – reduce others’ sufferings)

Human is a basic unit of society and in society many of the resources of society are combined. The whole society will be civilized and contented if our other brothers and sisters will be happy. Conversely, if our other brothers and sisters will be suffering then how could we live happily? So, we should keep asking the condition of brothers and sisters around us. Here, the meaning of sharing of your happiness and help reduce in other’s sorrow means ‘we should share our happiness/resources with the people around us so that everyone can be happy’ (34). It is indeed an important formula for healthy family and social life.



### 3. *Mil-Baantkar Khayen* (Share and Eat together)

This aphorism describes the attitude of cooperation and collaboration. In this Corona Virus period, where everyone is instructed to stay at home, as much as possible, and conditions of lacking have identified. Hence, in such conditions, this aphorism inspires us to live in harmony with the people around us, taking care of their needs, and sharing our food, resources, facilities, etc. with needy. Pandit Shriram Sharma Acharya has mentioned that “Friends! one who has faith in divine and have divine virtues in the heart can eat only after sharing with others” (35).

#### *For Spiritual Health*

*Upasana*, *Sadhana*, and *Aradhana* are the paramount and holistic practices for spiritual growth as propounded by Pandit Shriram Sharma Acharya. These practices not only improve immunity employing mental stability but also help in the expansion of self (spiritual immunity) leading to harmony in society which specifically needed in crisis like COVID19 pandemic.

#### 1. *Upasana* (To imbibe divine virtues by worshipping)

In *Upasana*, the divine qualities are embraced in the body, mind, and senses. This is fundamentally a practice for cultivating good habits in our behavior. It opens plenteous opportunities to deepen our relationship with our spirit. *Upasana* at a higher level includes extraction of self-consciousness from imperfect bondages and connecting in with ultimate-consciousness which allows emotional integration and consequential effort for unity with supreme-soul (36).

#### 2. *Sadhana* (Spiritual discipline)

The literal sense of *Sadhana*, in the Sanskrit language, is ‘practice’ or ‘discipline’. *Sadhana* means to mold our life into divine discipline. In *Sadhana*, one has to continuously observe own thought process and direct it towards a righteous path. Physical training, way of living, self-restraint, the performance of duties, development of virtues, eradication of evil tendencies, etc. come under the

purview of spiritual discipline (37). It is a process by which one’s individuality is made pure, authentic, and brilliant. The learned virtues from *Upasana* are imbibed and practiced in daily routine by *Sadhana*.

#### 3. *Aradhana* (Selfless services/ Adoration)

The meaning of *Aradhana* is to do what is need by another (38). As a human, we have the duty of offering our human services to society and the world. We are supposed to help in maintaining the natural ecosystem and to contribute our level best for the healthy and happy growth of all animate and inanimate of the world. According to Pandit Shriram Sharma Acharya, it is only through caring for the needs of others, one’s selfishness can be replaced with selflessness (38).

Two practices have been instructed by Pandit Shriram Sharma Acharya to incorporate *Upasana*, *Sadhana*, and *Aradhana* in daily life. The practices are *Samayadan* and *Anshdan*. *Samayadan* means to wisely utilize time for the pious purpose through social welfare activities. *Anshdan* means offering our wealth and resources for the welfare and upliftment of society. Both of these practices are severely needed to combat with COVID19 crisis.

#### *For the Enhancement of Holistic Health and Immunity*

For holistic development, Pandit Shriram Sharma Acharya has given some specific practices which are elaborated as following.

#### 1. *Yagya*

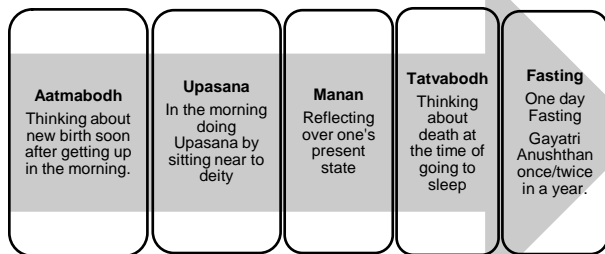
*Yagya* is a righteous act in Indian scriptures. The Vedic Mantras as well as the herbal substances mentioned in the scriptures, when duly invoked in *Yagya Agni* (divine *Yagya* fire) it generates a divine atmosphere through performer and participants benefit (39). Scientifically, it is a Vedic herbal therapy that uses herbal healing treatment with fire where medicinal vapors (phyto-constituents of plant herbs) and gases are released. It is principally an inhalation therapy that promises wider remedial applications without any risk of side effects. It is cost-effective, natural, and provides added benefits



of purifying the environmental conditions by balancing the ecosystem (40).

## 2. Pragma Yog Sadhna

*Pragya Yoga Sadhana* covers three types of Yoga i.e. *Gyana Yoga*, *Karma Yoga*, and *Bhakti Yoga*. By performing this *Sadhana*, one can achieve better status of physical health, mental peace, and spiritual bliss. *Pragya Yoga Sadhana* has practiced with *Atma-bodh* i.e. self-realization, *Tattva-bodha* i.e. Self-introspection, *Upasana* (worship), *Manan* (Contemplation), and *Gayatri Anusthan* (Spiritual Practices). *Gayatri Anusthan* can be performed weekly, monthly, or annually (41). Figure 2 depicts the steps of *Pragya Yoga Sadhana*.



**Figure 2.** Steps of Pragma Yoga Sadhana

## 3. Four steps of Self Development

The four steps of self-development are *Sadhana* (Spiritual discipline), *Swadhayay* (Self-Study), *Sanyam* (Self-Restraint), *Sewa* (Service or Aradhana). Out of these four steps, *Sadhana*, *Swadhayay*, and *Sewa* are already discussed previously in this manuscript. *Sanyam* is important to avoid the withdrawal of mental and physical energy. There is animal instinct in the human mind, so if it is not restricted by self-control then it would create inconsistency in the society. It works on four fronts, i.e. control of the sense organs, control of the mind, righteous use of time and righteous use of money (42).

## 4. Four Pillars of Self

Four grounds have been considered to be the key to overall spiritual development by means of self. The four pillars of self are – 1) prudence, 2) honesty, 3) responsibility, and 4) bravery. They should be considered as important in terms of spiritual-inner

seniority as food, water, clothing, and habitation are considered essential for the body (43). Prudence (*Samjhdari*) implies the adoption of visionary rationality. Based on prudence, it can be possible to avoid calamities and create possibilities for a bright future. Honesty (*Imandari*) is to keep speech and action together. It is helpful to maintain authenticity and credibility. Responsibility (*Jimmedari*) means to accomplish our responsibilities in the right manner and at the right time. Bravery (*Bahaduri*) means to handle the struggle of life for truth with courage. The fundamental basis of the progress is to fulfill these duties.

## Discussion

As discussed in above mentioned sections, it is necessary to increase the body's immunity during the COVID19 crisis. Governments of all countries are instructing their citizens to follow various preventive guidelines as well as to rethink about their immunity level. In Indian medical philosophy, many measures have been given to increase immunity. The different immunity-boosting approaches and aphorism given by Pandit Shiram Sharma are mentioned in section 'Indigenous Immunity Boosting approaches from the literature of Pandit Shriram Sharma Acharya'. Summarily, for physical health, practices such as *Pragya Yoga Exercise*, *Pranaakarshan* Pranayama, and *Kalpa-Chikitsa* can improve the overall health during the outbreak of the Corona Virus. *Pragya Yoga Exercise* package increases the movement of the body with *asanas*, which are easy to follow by all age and all normal conditions. It is a complete package that positively affects the muscular, respiratory, digestive, urinary, endocrine, etc. systems of the human body. In addition, *Gayatri* mantra incorporation in it is a prayer for the righteous path in life, so a person practicing *Pragya Yoga Exercises* automatically adopts the benefit of *Gayatri Mantra* helping mental immunity.

With *Prana-akarshan* Pranayama the practitioner inhales the vitality through lungs for strengthening the circulatory system. Clinically, it has been described that the Stage-III of COVID19 attacks the



human respiratory system very severely (15), therefore, practices such as *Pranaakarshan* Pranayama for 10-20 minutes increasing vitality might help increase immunity and fight against infections. *Kalpa-Chikitsa* as explained by Pandit Shriram Sharma Acharya can improve immunity by taking commonly available herbal plants and following specific food intake pattern. A variant of *Kalpa-Chikitsa* has been already given in the advisory given by the Ministry of AYUSH of India. Regular intake of *Tulsi, giloy, Amla, Neem*, etc., based on their medical properties, removes the alien elements from the body. On one side, the intake of foods that are not properly digested in the body is stopped and on the other side medicinal plants that can help in healing and healthy growth are initiated. The Government of India is also advertising to have simple food and concoction for the balance of human health and society.

Sudden changes in life not only affect the routine of life but also disturb the mentality. Due to pandemic, routine of people is disturbed very widely and deeply i.e. work from home, losing job, business slowdown, decreased earnings, etc. In addition, those who are going to their jobs have fear in their mind for Corona Virus infection affecting mental immunity. The Government of India and many governments of other countries also have started free psychological counseling sessions for their citizens so that people can cope with these strange situations arising around them during COVID19. However, to deal with this epidemic effectively, one requires a strong mindset and traditionally well-established approaches and strategies.

For this Pandit Shriram Sharma Acharya has emphasized self-contemplation with spiritual discourses, meditation practices, and self-study through life upliftment-based contents. Individuals and families are in quarantine-like situation at their respective places in this adverse time-period. There is no doubt that the present circumstances are unfavorable for the common man. Pandit Shriram Sharma Acharya has given a series of books on handling adverse situations in human life by the

mind. He often used the phrase 'मनःस्थितिबदलेतोपरिस्थितिबदले'. It translates, 'If mindset is changes, then the circumstances (situation) will change'; he also published a book on the subject.

As per Indian philosophy, 'human birth is given to upgrade the garden created by God', assimilating the fact, he had devoted his entire life to humanity. He has written, in his literature on social health that only humans who are best creature of God, has ability to think with discriminative wisdom and contemplate. Therefore, in the COVID19 time-period, it becomes very important to share our resources with other needy people if we have enough resources with us.

He has given a formulae for social health, 'अपनी रोटी मिल-बांट कर खाए ताकि हमारे सभी भाई खुश रह सके'. It translates, 'Share your bread, so that all our brother can stay happy'.

The principles of *Upasana, Sadhana, and Aradhana* are given for spiritual health that benefits the whole personality. According to him, without working on self a person cannot do any progress. Spiritual health concerns one's integrity, social conduct, duties, beliefs, and self-esteem. As *Upasana* consolidates beliefs and self-esteem, *Sadhana* develops integrity and discipline, and *Aradhana* aware the person about social duties and conduct. He gave the formula for spiritual happiness, 'सच्चा सुख ईश्वर के गुणों को धारण करने, अपनी आत्मा को जागृत रखने एवम संसार की सेवा करने में ही निहित है'. It translates, 'True happiness lies in imbibing the qualities of divine, by keeping our soul awake and by serving the world'.

Surely, the approaches and aphorisms given by Pandit Shriram Sharma Acharya can fulfill the needs of each class of society along with strengthening its core structure. These approaches can be adopted by any person to improve their health and immunity.

His list of relevant books on all aspect of health is given in Table 1. One can read his series of books to stay busy and happy (calm) in the adversity of COVID19; this value-oriented and life-enrichment



literature available online at <http://literature.awgp.org/book> is open access for public to read. Few books are available in print-format only.

The authors tried their best to select relevant titles given in table 1 to relevant category. However, it is possible that in addition to the books mentioned in table 1, other books on the same subject may also be available. The researchers aim to highlight the health-based literature of Pandit Shriram Sharma Acharya for mass benefit in COVID19. The content presented in this research paper would be saving the precision time and valuable efforts of the future researcher in a similar research domain.

### Conclusions

Protecting health is the prime duty of every human being. It is well said proverb that 'health is wealth'. This statement is equally demanding COVID19 pandemic era. With reference to the COVID19 pandemic, present study attempted to highlight an intuitive vision and immune-boosting approach given by Pandit Shriram Sharma Acharya. The intuitive-vision reflected his ultimate discriminative intellect and visionary ability, whereas his literature for physical, mental, social, and spiritual health describes his featured knowledge on the respective fields. The advisories released by the Government of India are already covered up in his literature in depth, which one can adopt to boost their immunity and stay healthy and happy. He has done true service to society by dedicating all his literature to humanity. The approaches from the literature of Pandit Shriram Sharma Acharya would act as the conceptual mentor for evolving and discovering new ways of health and immunity.

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| Naturopathy and Home Remedies  | Yoga and Yogic Lifestyle  | Family and Social Health  |
|--|---|---|
| प्राकृतिक चिकित्सा विज्ञान (The science of Naturopathy)  | यम-नियम (Yam-Niyam)   | स्वास्थ्य संवर्धन प्रगति की पहली सीढ़ी (First step of progress is health promotion)                               |
| घरेलू चिकित्सा (Home remedies)   | पतांजलि योग का तत्त्वदर्शन (Philosophy of Patanjali yoga)   | इन दिनों का प्रजनन विपत्ति का आमंत्रण (Procreation these days means invitation to misery)                         |
| पंच तत्वों द्वारा सर्व रोगों की चिकित्सा (Treatment of all diseases by five elements)                        | प्राणायाम से अधि-व्याधि निवारण (Solutions of physical and mental health issues through pranayama) | नशेबाजी के खतरों से सावधान (Beware of drugs hazards)  |
| सरल चिकित्सा विज्ञान (Fundamental science of treatment)  | आसन और प्राणायाम (Asana and pranayama)  | सुप्रजनन भावीपीढ़ी का नव-सृजन (Ideal family planning is base of future generations)                               |
| कब्ज कैसे दूर हो? (How to overcome constipation?)  | आसनों द्वारा काय चिकित्सा (Physiotherapy by asanas)   | जीवन यात्रा का एक भटकवा (Intoxication- A disorientation of life)  |
| स्वच्छता मनुष्य का प्रथम गुरुमंत्र (Cleanliness is master formulae for humans)                               | सर्वोपयोगी सरल व्यायाम (All-purpose simple exercises)   | तम्बाकू एक घातक विष (Tobacco is a deadly poison)  |
| आहार में संयम बरतें (Be restraint in diet)   | ज्ञानयोग की साधना (Discipline of Gyanayoga)   | गरीबी भगाएँ गरिमा बढ़ाएँ (Shun poverty - increase dignity)  |
| स्वास्थ्य – रक्षा प्रकृति के अनुसरण से ही सम्भव (Health care is possible only by following the nature)       | व्यायाम आन्दोलन को व्यापक बनाया जाये (Make the Exercise movement extensive)                       | बाल विकास की समस्याएँ (Complications in child development)  |
| शारीरिक परिशोधन हेतु उपवास की अनिवार्यता (The necessity of fasting for physical refinement)                  | <b>Mental and Physical Health</b>   | मित्रता करें पर समझ-बूझकर (Do friendship with prudence attitude)  |
| वृक्ष सम्पदा को घटने न दें (Do not let fall the wealth of trees)   | हँसती और हँसाती जिन्दगी ही सार्थक (Joyful life is only meaningful)                                | अहंकार में डूब मत जाइये (Do not drown in ego)   |
| <b>Ayurveda</b>  | हम अशक्त क्यों? सशक्त क्यों? (Why are we disabled? Why strong?)                                   | सुखी वृद्धावस्था (Ecstatic old age)   |
| आरोग्य रक्षा के रहस्य (Secrets of health care)   | सुखी इस तरह रहा जा सकता है (Contented life can be lived like this)                                | सज्जनता की राह (Path of gentleness)   |
| बिना औषधि के काया – कल्प (Rejuvenation without medicine)   | मत असंतुष्ट रहिये (Do not be dissatisfied)  | अन्न संकट की चुनौती का सामना कैसे करें (How to face the challenge of food crisis)                                 |
| कल्प चिकित्सा (Kalpa therapy)  | सदविचारों की सृजनात्मक शक्ति (Creative power of ideas)  | मर्यादाओं का उल्लंघन ना करें (Do not avoid dignity)   |
| बिना कष्ट के प्रसव (Painless Delivery)   | व्यक्तित्व के परिष्कार में श्रद्धा ही समर्थ (Faith is only proficient to refine the personality)  | तम्बाकू का दुर्व्यसन छोड़ा ही जाना चाहिए (Must quit tobacco addiction)  |
| क्या खाएँ? कैसे खाएँ? (What to eat? How to eat?)   | सात्विक जीवन चर्या और दीर्घायुष्य (Sattvic lifestyle and longevity)                               | स्वच्छता मनुष्य का गौरव (Cleanliness is pride of human)   |
| शक्ति-संचय के पथ पर (On the path of power accumulation)  | आत्म रक्षा मनोरोगों से भी करनी चाहिए (Self must be protected from psychopathy)                    | अस्वच्छता का अभिशाप मिटाना ही सबसे बड़ी सेवा (Greatest service is to eradicate the curse of uncleanness)          |
| घरेलू शाक वाटिका - शोभा, स्वास्थ्य, सृजन एवं बचत (Domestic herbicide - beauty, health, creation and savings) | मन:संस्थान को विकृत न बनने दें (Do not let the mind be distorted)                                 | <b>Lifestyle-Based</b>  |
| मसाला वाटिका हेतु घरेलू उपचार (Home remedies from spice garden )   | मन को स्वच्छ और संतुलित रखें (Keep the mind clean and balanced)                                   | क्या खाएँ, क्यों खाएँ कैसे खाएँ (What to eat? Why eat? How to eat?)   |
| दूध की आश्चर्य जनक शक्ति (The amazing power of milk)   | विक्षोभों और उद्वेगों से बचें (Avoid disturbances and excitement)                                 | आहार और विहार में असंयम ना बरते (Do not use incontinence with diet and behavior)                                  |
| स्त्री रोग चिकित्सा (Gynecology)   | मनोरंजन का मनोविज्ञान (The real joy of entertainment)   | बल वर्धक व्यायाम (Strengthening exercises)  |
| कब्ज की सरल चिकित्सा (Simple treatment of constipation)  | महत्त्व कांक्षाएँ विकृत न होने पाएँ (Ambitions should not be distorted)                           | स्वस्थ रहने के कुछ मूलभूत सिद्धांत (Some basic principles to stay healthy)  |
| बाल रोग चिकित्सा (Pediatrics treatment)  | सुख भोग में नहीं त्याग में है (Happiness is in sacrifice not in materialism)                      | व्यायाम हमारी आवश्यकता (Exercise is our need)   |
| शाकाहारी व्यंजन (Vegetarian dishes)  | विकृत चिन्तन रोग – शोक का मूलभूत कारण (Deformed thinking is the primary cause of grief)           | तन मन स्वस्थ रहे ऐसा आहार करें (Take such diet which keep body and mind healthy)                                  |
| शाकउगाएँ, अन्न बचाएँ (Grow vegetables save food)   | मन के हारे हार जीते जीत (The defeated mind defeats and the victorious mind wins)                  | दवाएँ खाते जाएँ, रोग बढ़ाते जाएँ, ये कहा तक उचित है (How far is it appropriate to take medicines and increase the |



|   |   |   |
|---|---|---|
|   |   | disease?)   |
| खाया कैसे जाए? (How to eat?)  | रुग्ण रहें या स्वस्थ, यह अपने मन पर निर्भर है (Stay sick or healthy, it is up to your mind) | सशक्त जीवन का राजमार्ग (Highway for powerful longevity)   |
| स्वस्थ रहना है तो दही खाइये (Eat yogurt to be healthy)  | काम आवेंगे अपने ही हाथ (Only your efforts will help you)                                    | आहार संतुलन रखें अपच से बसें (Keep diet balance and avoid indigestion)                          |
| चिरस्थायी यौवन (Eternal youthfulness)   | कामना और वासना की मर्यादा (Modesty of desire and lust)                                      | आपको सौ वर्षों तक जीवित रहना चाहिते (You must live 100 years)                                   |
| तुलसी के चमत्कारी गुण(Miraculous properties of Basil)   | असंतोष की आग में यों न जलें (Do not be anxious with dissatisfaction)                        | खाते समय इन बातों का ध्यान रखें (Keep these things in mind while eating))                       |
| दूध पीएँ तो इस तरह (Drink milk like this)   | संयम हमारी एक महत्वपूर्ण आवश्यकता (Restraint is our vital need)                             | जिंदगी एक कला एक खेल (Life is an art, a game)   |
| स्वास्थ्य एवं दीर्घ जीवन की कुंजी – आहार संयम (Diet Restraint-the key for health and long-lasting life) | जो करें, मन लगाकर करें (Whatever do, do wholeheartedly)                                     | उपभोग नहीं उपयोग (Don't consume but utilize)  |
| जड़ी-बूटियों द्वारा स्वास्थ्य संरक्षण (Health care by herbs)  | आराम नहीं, काम कीजिए (Do not rest but work)   | हम अस्वच्छ ना रहें घृणित ना बनें (Don't be unclean and disgusting)                              |
| जड़ी-बूटी विज्ञान का नये सिरे से अनुसंधान (Research on herbal science from new aspects)                 | विनोद और उल्लास की प्रवृत्तियाँ (Tendency of humor and glee)                                | उन्मत्त हाथी की तरह ना जियें (Do not live like a crazy frantic)                                 |
| जड़ी-बूटी चिकित्सा एवं संदर्शिका (Herbal therapy and guidance)  | उतावली न करें, उद्विग्न न हों (Do not rush and panic)                                       | स्वाद की गुलामी तो स्वीकार ना की जाएँ (Do not accept servitude of taste)                        |
| कब्ज से कैसे बचें और कैसे छूटें? (How to avoid constipation and how to get rid of it?)                  | दूसरों के दोष – दुर्गुण ही न देखा करें (Do not see the faults of others)                    | रोग से लड़ें पर रोगी को तो बचाएँ (Fight disease but save the patient)                           |
| आधि-व्याधियों की बाढ़ और उनकी रोकथाम (Stream of diseases and their prevention)                          | निराशा को पास फटकने न दें(Do not allow disappointment nearby you)                           | पौष्टिक आहार सर्वसुलभ और सस्ता भी (Nutritious food is commonly available as well as economical) |
| हरीतिमा वृद्धि से स्वास्थ्य परमार्थ का समन्वय (Health benefit in collaboration with Green Growth)       | आवेशग्रस्त हो ने कीअपारहानि (Immense loss of being angry)                                   | खाने तक में नासमझी की भरमार (Delusions of food)   |
| चिर यौवन का रहस्योद्घाटन (Revelation of eternal youthfulness)   | मानसिक स्थिति का स्वास्थ्य पर प्रभाव (Effect of mental state on health)                     | निरोग बने रहने के शाश्वत सिद्धांत (Eternal principles of being healthy)                         |
| समग्र स्वास्थ्य – सम्वर्द्धन कैसे? (How to improve overall health?)                                     | न डरिये, न अशान्त होइए (Do not be afraid and upset)   | चिकित्सा उपचार के विविध आयाम (Diverse dimensions of the treatment)                              |
| कच्चा खाएँ – स्वास्थ्य बनाएँ (Eat raw-build health)   | असन्तोषकीआगसेबचिये(Beware of dissatisfaction)   | निरोग जीवन के महत्वपूर्ण सूत्र (The important aphorism of healthy Life)                         |
| मांस मनुष्यता को त्याग कर ही खाया जा सकता है (Meat can be eaten only by abandoning humanity)            | आत्मविश्वासी बनें, भय न करें (Be confident and do not be afraid)                            | चिरयौवन एवं शाश्वत सौन्दर्य (Eternal youthfulness and perpetual beauty)                         |
| काम शक्ति के दुरुपयोग की विभीषिकाओं का ध्यान रहे (Beware of the miseries of misuse of Sensual Power)    | स्थूल शरीर को नीरोग बनाने की कला (Art of making the physical body healthy)                  | जीवेम शरदः शतं (Live for 100 years)   |
| मांसाहार मानवता विरुद्ध है (Non-vegetarian is against humanity)   | शरीर को स्वस्थ रखिये (Keep your body healthy)   |   |

**Table 1.** Selected list of books by Pandit Shriram Sharma Acharya on Health and Wellness; English titles of the books only unfold the meaning of the original Hindi titles, rather than exact translation.



Research Article

## 8 fold Indigenous Approach for Improving Psycho-immunity: With Special reference to COVID19 pandemic

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**Abstract.** Enhancement of the Psycho-immunity is important aspect for enhancing the total immunity to prevent from stress, anxiety and infection in the time of COVID19 pandemic. In most developing countries of the world, the traditional medical systems can provide solutions and support to cope with the current situation. Present study aimed to find out some of the evidence based practices related to Ayurveda, Yoga and other Indigenous studies, which are helpful in current situation. The eight basic practices, tools or factors to enhance the level of psychological immunity were described in this study and most of them were tested previously through randomized control trials. These eight tools include – ‘Brain Tonics, Code of Conducts, Golden Rules of Happiness, Yoga, *Satvik Karma*, Somato-psychic-factors, Adverse effects of biological and psychological pollution, Three Pillars (*vat-pitta-kapha*) and Three Sub-pillars (*aahar-nidra-brahmacharya*) of health’ and thus the study presented the holistic mental health care module helpful in COVID19 pandemic.

**Keywords.** Psycho-immunity, COVID19, Ayurvedic Mental Health Care, Pillars of Health, Holistic Mental Health Care



## Introduction

Ancient Indian medicinal literature describes Indigenous tools which server as preventive medicine that deal with all aspect of health including psychological problems. Mental health is more than the absence of psychological disorders. It is defined as a state of well-being in which every individual realizes one's potential and through which one cope with the normal stresses of life, work productively and fruitfully, and make a contribution towards community. This definition by WHO indicated the need for mental health care. In most developing countries of the world, the traditional medical-systems are prevailing side-by-side with the modern system, and the majority of the population regularly consults both types of health practitioners and healers. Traditional practitioners are far outnumbered compared to modern health professionals (1).

Enhancement of the Psycho-immunity is as important as the enhancement of the general immunity to prevent ourselves from the stress, anxiety, fear, insecurity by COVID19 pandemic affecting the whole world and every individual. The eight tools of Indigenous practices presented in this study are simple and easy to practice and can support and be useful for fighting against the effects of COVID19 pandemic. In addition to these tools, few recent studies also suggest other ways such as a project of faculty of psychology, University of Beijing Normal University suggests minimum standards for Mental Health providers (2). Remote Psychological First Aid Protocol for Health care Workers in a University Teaching Hospital, Malaysia (3) etc. to cope with the current situation (4).

The specific part of the literature related to the ancient medical system shall be included in designing the modules of holistic mental health care against COVID19, which Indian Government along with other countries included in their adversaries against COVID19. However, the measures for psycho-immunity is had not been paid attention by the regulatory bodies which would be extremely of

importance post COVID19 time for reducing the traumatic effect of the pandemic. There are vast concepts which should be reached to mass helping their psycho-immunity.

## Indigenous approaches to improve Psycho-immunity (Figure 1)

The graphical representation of eight selective aspects of the Ancient Indian Perspective for achieving holistic mental health is depicted in figure 1, which may play a supportive role in psycho-immunity in COVID19 pandemic era.

### *Rasayana Brain Tonics*

#### 1. Herbs

Many herbal practices recommended in Ayurveda for maintaining psycho-immunity. Charak Samhita is a classical text of Ayurveda and considered as the foundation text of all Ayurveda texts Ayurvedic treatment. According to Charak Samhita, herbs such as *Brahmi* (*Bacopa monnieri*) and *Shankhpushpi* (*Convolvulus pluricaulis Choisy*) are of important *Medhya* (related to mind and intellect) *Rasayana* (powerful formulation), which can help in psycho-immunity (5). There were many randomized control clinical trials conducted on *Brahmi* (*Bacopa monnieri*) for its effect on mental health available, however, there were fewer studies available for the effect of *Shankhpushpi* (*Convolvulus pluricaulis Choisy*) on mental health; regardless studies support the brain tonic effects of herbs recommended in Ayurveda. Previously randomized control trials regarding the effect of *Brahmi* (*Bacopa monnieri*) on protecting and improving memory power etc. showed that the capacity of Novel object recognition was increased significantly in 54 male rats (6).

#### 2. Mentone tablet as a brain tonic

As anxiety is one of the important factors as a resultant of a pandemic like COVID-19, it demands the need to find out evidence based practices for the treatment of anxiety. According to Rekha A, 2 grams of Mentone tablet containing *Mandukparni* (*Centella Asiatica*),



*Shankhpushpi* (*Convolvulus pluricaulis* Choisy), *Guduchi* (*Tinospora cordifolia*), *Yastimadhu* (*Glycyrrhiza Glabra*) as ingredients can be administered in two divided doses with milk in the morning and night after food for 30 days for anxiety as well as for overall psycho-immunity (7).

#### *Behavioural Rasayana (Code of Conduct)*

*Achar* (behavioural) *Rasayana* is a Code of Conduct as per Ayurveda like truthfulness, nonviolence, lack of anger, talking with pleasing words, having sense concentrated to spirituality etc. These are also considered as brain tonics because they also nourish our brain. As it is difficult to do an experimental study on such conducts, this area of Indigenous practice remains unexplored in terms of evidence based practices. Regular use of Ghee is also included in *Achar-Rasayana*. There are many empirical shreds of evidence available on Ayurveda preparations made of Ghee. *Kushmandadi Ghrita* in generalized anxiety disorder was administered in a survey study of 60 patients of Generalized Anxiety Disorder (GAD). The trial drug has shown significant improvement in various clinical parameters related to GAD (8).

#### *Golden Rules of Happiness (lifestyle and Philosophy)*

Indian Scripture and Indigenous knowledge kept so much weight on the concept of the righteous source of income, which is one of the important aspects of Happiness. Also, the desire of righteous company in the journey of life and such virtues are considered as Golden Rules for a happy and healthy life. The desire for the company of the good, taking up those means of livelihood which are not contradictory to social and religious ethics etc, are very important for maintaining good mental health as per indigenous spiritual guidance. The concept of Karma, what you do what you get, plays an important role in maintaining mental health and hence, these golden rules play an important role in overall mental health. So far no systemic modern study is taken to measure the effectiveness of these golden rules on mental health, and thus such studies would open up a

dimension for modern psychology. However, there are some correlations and studies available in which one or more of these rules are part of the intervention, for instance, a disturbing daily routine is associated with anxiety and mood disorders (9).

#### *Ashtanga Yoga*

There are numerous studies available examining the effects of yoga on anxiety and psychological health. For example, one study shows that yoga relaxation affected reducing anxiety levels among pregnant women at the third trimester (10), while one study shows the efficacy of yoga in increasing emotion regulation capacities of middle adolescents (11). However, a meta-analysis report indicated that studies with the large, well-defined populations, adequate controls, randomization and long duration should be explored further (12). Regardless, a plethora of scientific literature is emerging for its utility in physical and mental health and also, in the recent times, the concept of Yoga and Yogic life is being well adopted in lifestyle globally, and people are practicing them in daily life for total health.

#### *Yajna and other Satvik Karma*

A fundamental aspect of indigenous knowledge is three *Gunas* (fundamental constituents of existence) i.e. *sattva* (which brings peace and harmony due to virtues like sympathy, nobility, politeness, courage, care, etc), *rajas* (which brings activity, state of unhappiness due to vices such as anger, greediness, etc), *tamas* (which brings inaction, dormant state due to ignorance, darkness, etc).

According to Ayurveda, there are two mental *dosas*, which are root causes of mental disorders of mind i.e. *Rajas* and *Tamas*. The fact regarding *Satva-Guna* is that the person low in *Satva-Guna* is highly sensitive to mental health problems like *Unmāda*. Simple indigenous practices like Ayurvedic brain tonics, *Pancha-karma*, yoga, yogic life, and spiritual practices such as Yajna, Gayatri Mantra Chanting, etc, together can enhance the level of *Satva-guna* in a person. Increasing *Satva-Guna* is a strategy to cure these *dosas*. *Satvik* karmas like Yajna, Gayatri Mantra Chanting, etc have been previously



administered in many studies to benefit in mental ailments such as stress and anxiety (13) (14), obsessive compulsion disease and PolyCystic Ovarian Disease) (15), and Epilepsy (16), (17).

|                            |   |   |
|----------------------------|---|---|
| (Rasāyana)<br>Brain Tonics | Behavioural Rasāyana<br>(Codes of conduct)  | Golden Rules of Happiness<br>(Lifestyle and Philosophy)                       |
| Aṣṭāṅga Yoga               | Mental Health                               | Yajña and other Sātvika<br>Karma  |
| Somatic Health             | Pollution (Biological and<br>Psychological) | Stambha (Vāta-Pitta-<br>Kapha) and Upastambh<br>(Āhāra-Nidrā-<br>Brahmacarya) |

**Figure 1.** Eight indigenous approaches to improve psycho-immunity

**Somatic Health**

A healthy mind resides in a healthy body. The chronic physiological problem may lead to psychological problems too. In the absence of good respiratory health, anxiety regarding the infection of the COVID-19 is evident. There are numerous physiological factors have an association with anxiety and other psychological problems. For example, a study showed the presence of an association of low blood pressure with anxiety (18). Somatic health using Ayurvedic and Yogic practices could be improved to have good psycho-immunity.

**Biological & Psychological Pollution**

The association of air pollution with anxiety and other psychological disorders is an emerging field of scientific studies. One such study shows the association of air pollution and psychological disorders in elder people (19). Also, psychological pollution such as negative thoughts, stress, hatred, jealousy, etc has been a major issue emerging due to lifestyle especially in quarantine life scenario of COVID19 era. Psychological pollution has been always stressed out in indigenous techniques Satvik Karma, Code of conducts, golden rules etc play an important role in reducing psychological pollution.

**Pillars (Stambha vat-pitta-Kapha) for mental health**

Ayurveda is an Indian medical system which is one of the major sources of mental health-related concepts. Ayurveda described health as the balance of three primary *dosas* (fluids/energy) in the body: wind (*Vāta*), gall (*Pitt*) and mucus (*Kapha*) (20). Monitoring of the balance of these three *Doṣas* will be a great help in prevention as well as in intervention of mental health problems.

*Unmāda* is a psychological disorder referred to in Ayurveda. In this particular case, as the *Doshas* aggravated, they affect the upper part of the body channels (carrying on the mental functions) and produce symptoms as in intoxication to that of a mental disease known as *Unmāda* or psychoses (21). *Vata* is responsible for anxiety (22). From *Pittaja Unmada*, pathogenic *pitta* insanity the patient begins to have a posture of anger and violence in his relationships with others (23). *Kaphaj Unmada* can be correlated with moderate to severe depression (24).

The concepts related to aetiology of *Vataj Unmada* can be included in indigenous modules to improve psycho-immunity. *Vāyuis* aggravated by the intake of rough, deficient and cold food, excessive evacuation, wasting of *Dhatuis* and fasting affects the mind, which is already afflicted with anxiety and thus deranges intellect and memory quickly (25). The weakness of mind is a major cause of mental health problems. This fact is nicely explained in Ayurvedic literature. If we understand the strength of our mind we can prevent it from many disorders like anxiety, depression in the time of this pandemic. If we follow Ayurveda to balance these *dosas*, it will strengthen our mind to achieve a higher state of mental health.

**Sub-pillars (Upstambha aahar-nidra-brahmacharya) for mental health**

Ayurveda Vata, Pitta and Kapha these three *dosas* are pillars of our health, while Food, Sleep and Brahmacharya (celibacy) are three sub-pillars of total health.

1. Food and Mental Health



A study showed that consuming 'unhealthy' foods (e.g. sweets, cookies, snacks, fast food) can have a significant positive association with perceived stress (females only) and depressive symptoms (both males and females). Conversely, consuming 'healthy' foods (e.g. fresh fruits, salads, cooked vegetables) can have a significant negative association with perceived stress and depressive symptoms for both sexes (26).

## 2. Sleep and Mental Health

Adequate sleep is important for general psychological well being. It is also correlated with a reduction in psychotic experiences (27).

## 3. Brahmacharya and Mental Health

*Brahmacharya* (Celibacy) is recommended in Ayurveda for a healthy life. *Brahmacharya* in the definition means to have an existence in Brahma (supreme power) i.e. action, thoughts, and character of person should be aligned to spiritual life should live in continuous harmony with supreme goal. Such lifestyle leads to mental health and psycho-immunity as a result. (28).

## Conclusion

In the last couple of months (first half of the year 2020), COVID-19 has emerged as a public health threat around the world. To protect ourselves and our loved ones, one has to follow the guidelines of local government. Apart from that, if we look at the traditional medical literature of India, we can find many tools to enhance our psycho-immunity against the anxiety and other mental disorders possible resulting in COVID-19 pandemic. The eight evidence based tools are shown in this paper may be useful in developing modules of prevention of mental disorders and to maintain our psycho-immunity and mental health.

## Conflict of interest

The authors declare that they have no conflict of interest.

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Shriram Sharma Acharya  
([http://www.awgp.org/about\\_us/patron\\_founder](http://www.awgp.org/about_us/patron_founder))

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Research Article

## Yoga for physical and mental health – Can possibly aid in prevention and management of COVID19 infection?

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**Abstract.** COVID19 pandemic is global infectious disease caused by SARS Corona Virus 2. The pandemic so far has affected more than 200 countries and territories causing more than 12,552,765 human infections and 561,617 human deaths. The situation has created global emergency crisis and is rapidly spreading. The infected humans are known to have low immunity and once infected developed conditions such as acute respiratory distress syndrome, breathlessness, severe dyspnea, tachypnea, respiratory distress, hypoxia and cardiac arrest, etc. In addition, people with chronic diseases like diabetes, hypertension, cardiovascular disorders, Chronic obstructive pulmonary disorder (COPD), asthma, and elderly people with weakened immune systems are known to be more prone to catch the infection. So far no treatment is clinically proven and available, but many are under investigations; the best approach to fight against the disease is prevention and management of COVID19 infection. Yoga, meditation, and yogic bio-cleansing practices previously evidenced for general immune boosting capacity, and are also evidenced for the management of respiratory disorders, non-communicable disorders such as diabetes, cardiovascular diseases, etc, and also for psychological disorders and ailments; by reviewing these studies, in the presented study, it was attempted to shed a light on the possibility of supporting role of Yoga for improving physical and mental health in the patients with COVID19 with respiratory disorders, co-morbidities (diabetes and cardiovascular disorders), decreased immune function, and psychological illness.

**Keywords.** COVID19, Yoga, Yogic practices, Co-morbidities, Immunity, Diabetes, Cardiovascular diseases, Respiratory illness, and Mental health



## Introduction

COVID19 is a rapidly spreading infectious disease that has caused global pandemic due to recently emerged novel Corona Virus called Severe Acute Respiratory Syndrome Corona virus 2 (SARS-CoV-2). The place of an outbreak of COVID19 infection was the city of Wuhan, located in Hubei province of China, and it started in the month of December 2019 and later on it spread globally (1).

COVID19 virus is known to infect both human beings and animals (2). In human beings, it spreads rapidly from person to person through close contacts, or by tiny droplets containing viruses which are expelled in coughing and sneezing from an infected person to non-infected person entering in their mouth or nasal passage and causing infection (2). This disease has become a global pandemic and serious concern for the human beings as it is spreading rapidly. It has covered around 216 countries and territories, and has infected about 12,552,765 people around the world causing the deaths of 561,617 people as per World Health Organization as of July 12, 2020, at 4:49 pm CEST.

### *Symptoms and co-morbidity*

The known most common symptoms in COVID19 infected cases include fever, dry cough, tiredness, headaches and body aches, sore throat, nasal congestion, and diarrhea (2). These symptoms may range from mild to moderate and then severe. Around 80% of people recover from this illness (2). But one out of five patients may have the chance to develop severe respiratory symptoms. The older people who have weak immunity and people with co-morbidities like hypertension, diabetes, obesity, kidney problems, liver infection, heart or lung problems and cancer are at high risk of developing serious illnesses due to COVID19 infections (3). Guan et al. (2020) confirmed this fact by the study report that COVID19 patients with co-morbidity yield poorer clinical outcomes than those without it (4). Hence, the patients with co-morbidity are at higher fatality risk than those without it. The emergency sign and symptoms caused by this disease are breathing trouble, continuous chest pain,

blue lips or face, inability to stay awake, and developing new confusion (3).

To combat these symptoms of COVID19 infection the immune response needs to be stronger because weak and mal-adjusted immune response is known to result in pathology and impaired pulmonary gaseous exchange. The respiratory symptoms developed in this disease can be classified as mild, moderate, and severe (5). Mild symptoms are like non-pneumonia or mild pneumonia along with symptoms of the upper respiratory tract, cough, nasal congestion, soreness of throat, mild to moderate fever, malaise, muscle pain, headaches, vomiting, diarrhea, loss of taste and smell. Moderate symptoms include cough and shortness of breath without the sign of severe pneumonia. Severe symptoms include fever along with severe dyspnea, tachypnea (>30 breaths/ min), respiratory distress, and hypoxia i.e. SPO<sub>2</sub> less than 90% (5).

### *Psychological problems in COVID19 pandemic*

In addition, COVID19 infection has created psychological problems such as stress, anxiety, and depression including like panic and fear of death. A survey conducted by Wang et al. (2020) in China on psychological impact during the initial outbreak of COVID19 and the result of the study revealed moderate to severe depressive symptoms, anxiety symptoms, and stress level during this pandemic condition (6).

These psychological stresses may inhibit immune responses. Andersen et al. (1998) studied the physiological effect of stress on immune function and the data showed that stress inhibited the cellular immune responses including NK cells and T-cell responses (7). Another study conducted by Torales et al. (2020) reported that during the Korean MERS-CoV outbreak in 2015, the patients treated with hemodialysis in isolation reported physiological distress and significant delay in normalization during hemodialysis when compared to the patients of non-stressful conditions having the same treatment (8). Due to psychological distress, anxiety, and depression, there was a reduction in the immune



responses and significant delay in the recovery of the patients. Considering the reported findings, it could be predicted that in the global pandemic of COVID19, it could aggravate mental health issues having long-lasting effects on health problems.

#### *Available treatment options and potential role of Yoga*

Regarding available options for the treatment of COVID19, WHO declared that to date there is no specific treatment of this disease, any medicines and vaccines are available right now, though many treatments are under clinical trials. Doctors and researchers are trying and testing a variety of possible treatments. Considering the dire need of the treatment and no availability of treatment, Food and Drug Administration of USA, approved some drugs in the management of COVID19 such as hydroxychloroquine and chloroquine (anti-malarial drugs), and remdesivir (an antiviral drug) (3).

Besides these available options and ongoing approaches for finding treatments, the preventive measures like wearing a mask, hand sanitizing, social distancing, staying home, eating healthy foods, doing regular physical activities or exercises, taking adequate sleep, and performing yoga, pranayama, and meditation can be useful measures to prevent COVID19 spread at maximum strength.

The practice of yoga and meditation in this situation can be found helpful in releasing COVID19 related stress and anxiety and can also reduce the complications of this disease by boosting and improving immune and respiratory functions. In addition, previously many studies evidenced the beneficial effect of yoga in lifestyle disorders such as diabetes, hypertension, and other cardiovascular disorders. In COVID19 infected patients, diabetes, hypertension and cardiovascular diseases are factors for co-morbidity death. Hence, Yogic management in such conditions would possibly help in prevention and management of the COVID19 infection. Here, the presented study aimed to evaluate the potential role of yoga in the management of the physical and mental diseases and ailments which are specifically

symptoms of COVID19 infected patients through reviewing published studies.

#### **Yoga**

Yoga is an ancient science of India for culturing divinity in ourselves. The word yoga is derived from the Sanskrit word 'Yuj' which means union with the divine. Yogic practices consist of mind-body practices which include *asana* (yogic postures), *pranayama*, and *meditation*. Yogic practices are known to bring psychological and physiological changes in the body to bring harmony and homeostasis at the physical and mental level of the practitioners.

Yoga influences the life of practitioner at every dimension i.e. physical, mental, and spiritual. Maharishi Patanjali has described eight limbs or stages of Yoga i.e. *Yama* (social disciplines), *niyama* (spiritual disciplines), *asana* (yogic postures), *pranayama* (yogic way of breathing), *pratyahara* (control over senses), *dharana* (concentration), *dhyana* (meditation), and *samadhi* (enlightenment). The practice of these eight limbs of yoga is for spiritual and comprehensive progress.

There has been ample research evidence indicating therapeutic benefit of yoga for treatment and management of various diseases and ailments. In addition, Yogic practices also found therapeutically effective in treating and managing psychological disorders and conditions such as stress, anxiety depression, and post-traumatic depression, etc described in this study. In addition, studies also had showed therapeutic benefits of six Yogic-body-detoxification processes (*shatkarma*) i.e. *Dhauti*, *Basti*, *Neti*, *Nauli*, *Trataka*, and *Kapalabhati* as a standalone intervention or along with combination.

#### **Therapeutic effect of Yoga in diabetes**

A study by B.K Sahay (2007) evaluated the role of yogic practices on glycemic control and insulin kinetics in diabetic individuals and confirmed the usefulness of yoga in lowering down the blood glucose levels both fasting and postprandial. In addition, with Yogic practices, a good glycemic



status was maintained for a longer time along with the reduction in requirement of drug and the frequency of acute complications like ketosis and infection (9). In a systematic review of yoga-based intervention programs on Diabetes Mellitus 2 adult patients indicated significant beneficial changes in risk profiles like glucose tolerance, insulin sensitivity, lipid profiles, oxidative stress, blood pressure, coagulation profiles, sympathetic activation, and pulmonary function (10). Another study had also shown that a significant reduction in the parameters of plasma insulin, total cholesterol, and LDL-C levels was achieved with eight weeks of yoga intervention (11).

Besides Yogic packages, practices of specific yogic bio-cleansing processes (*shatkarma*) had also been shown to have beneficial effects in the management of diabetes. For example, Jindal & Joshi conducted a study on 20 diabetic men and found that *Vamana* (an emetic cleansing therapy) had a significant role in the reduction of fasting blood sugar FBS and postprandial blood sugar PPBS (12). In addition, the yogic *kriyas* like *agnisara* and *kapalbhati* along with asana and pranayama had reduced Glycated Haemoglobin (HbA1C) levels in diabetic patients (13) indicating potential role of Yoga in the management of the diabetes. Thus in COVID19 patients with Co-morbidity of diabetes, Yogic package could possibly support in fight against infection.

### **Therapeutic effect of Yoga on hypertension**

Many studies showed that Yogic practice such as mind-body interventions normalized or lowered blood pressure in pre-hypertensive and hypertensive persons. For instance, a study of 20 weeks yoga intervention program on 60 HIV-infected individuals with mild to moderate cardiovascular risk factors, significantly reduced blood pressure in the group treated with yoga-practices compared to that of group receiving standard treatment (14). Also, in the review of 17 studies, Hagins, Selfe, and Innes demonstrated that yoga interventions having postures, meditation, and breathing as three basic elements had a modest but significant effect in

lowering of BP both systolic and diastolic blood pressure (15). In another systematic review on Yoga and hypertension involving 39 cohort studies, 30 non-randomized control trials, 48 randomized control trials, and 3 case reports, Tyagi & Cohen (2014) reported the effectiveness of yoga in lowering down the BP in both normotensive and hypertensive patients (16).

Almost 2 decades back, in an interesting randomized-control-trial on with and without Yogic intervention for observing the differences in blood pressure was conducted by Murugesan et al. (2000). The study showed statistical reduction in blood pressure in the group treated with Yogic intervention compared to no-treatment control group (17).

Apart from these, many studies evidenced the same indicating potential role of Yoga in management of the hypertension and its complications. Thus in COVID19 patients with Co-morbidity of hypertension and relevant complications, Yogic package could possibly support in fight against infection.

### **Impact of yoga on respiratory illness**

As COVID19, patients showed respiratory disorders and associated complications and conditions such as shortness of breath, hypoxia, inflammation of lung, dyspnea, fall of oxygen saturation below 90%, pulmonary edema, acute respiratory distress syndrome and cardiac arrest (18); several studies have reported that yoga *asana*, pranayama, meditation, yogic-cleansing practices such as *Jalaneti* (Saline nasal irrigation), *Vamana dhauti* (an emetic cleansing exercise) had been found significantly effective in improving the condition of the respiratory disorders as described following, hence potentially could aid in treatment of COVID19 patients with respiratory complications.

A study by Rubago et al., (2002) indicated that daily practice of hypertonic saline nasal irrigation (*Jalaneti*) reduced complains of sinusitis and occurrence of acute exacerbation in the upper respiratory tract (19). In other study, Tano et al., (2004) found that



symptoms such as rhinitis, nose block, fever, cough, soreness of throat, and the frequency of upper respiratory tract infections were significantly reduced by the daily nasal spray with saline on a healthy population for 10 days compared to that of 10 days of observational period (20). Also the efficacy of saline nasal irrigation (*Jal-neti*) on allergic rhinitis was assessed in other study and found that 40°C saline nasal irrigation was effective in reducing the sneezing, nasal obstruction, and the levels of histamine and leukotriene (21).

Nagendra & Nagarathna, (1986) assessed the role of daily yoga practices including weekly cleansing practices like *neti* and *vaman-dhauti kriyas* on 570 patients of asthma who were followed up from 3 to 54 months and showed significant improvements in most of the specific parameters of asthma (22). A similar study was done by Ranjita et al., (2016) to assess the effectiveness of 12 weeks of yoga program including the cleansing practices (*neti and dhauti*), asana, pranayama, and meditation on 81 coal miner COPD patients; the result showed significant reduction ( $p<0.001$ ) in dyspnea, fatigue, and pulse rate (PR) and significant improvements ( $p<0.001$ ) in exercise capacity and oxygen saturation (SPO<sub>2</sub>) percentage in patients with yogic intervention compared to that of control group (23).

Besides these, pranayama were also evaluated for respiratory complications and it was observed that the deep breathing pranayama with slow respiration rate is beneficial for respiratory complications. A study was conducted to evaluate the effect of slow yogic breathing exercise on chemoreflex hypoxic and hypercapnic responses, which showed decrease in chemoreflex hypoxic and hypercapnic responses compared to the control group (24). Another study conducted to assess the effect of breathing rate on oxygen saturation and exercise performance on 15 chronic heart failure (CHF) patients (who practiced controlled guided pranayama at the rate of 6 breaths per minute of respiratory rate for one month) showed reduced dyspnoea and improved SPO<sub>2</sub>; in addition resting pulmonary gas exchange and exercise

performance were also increased in CHF patients compared to baseline (25).

In addition, a review of 9 studies evaluating yogic effect on pulmonary function showed that yoga improved pulmonary functions such as maximum inspiratory pressure, maximum expiratory pressure, maximum voluntary ventilation, forced vital capacity, forced expiratory volume (FEV), and peak expiratory flow rate (26). In the same line, a study of Yogic package was conducted by Sodhi et al. (2009) on 120 asthmatic patients who were randomized into two groups with 60 patients in each. The outcome measured the pulmonary function tests at the baseline, 4 weeks and 8 weeks in both groups treated with and without yoga. The yogic treatment showed a statistically significant increase ( $P<0.01$ ) in predicted-peak-expiratory-flow-rate, forced-expiratory-volume (FEV), forced-vital-capacity, forced-mid-expiratory-flow in 0.25–0.75 seconds at 4 week and 8 weeks compared to that of control group (27). The study indicated that yoga breathing exercises when used with standard pharmacological treatment significantly improves pulmonary functions in bronchial asthmatic patients. Similar positive report was also reported by Nagarathna & Nagendra in 1985, which was conducted on 53 patients of asthma, who were given yoga training for two weeks involving yoga *asana*, pranayama, meditation and a devotional session for 65 minutes daily. Matched groups with age severity of disease conditions, medications were used as control. The result showed in the yoga group there was a significantly greater improvement in the number of asthmatic attacks per week, scores for drug treatment and peak flow rate (28). Thus, these studies revealed the efficacy of yoga in the long term management of bronchial asthma.

In addition, Liu et al. (2014) conducted a systematic review and Meta analysis of 5 randomized control trials to assess the effect of yoga in patients with COPD and the findings revealed that yoga training had improved forced expiratory volumes FEV1 and FEV1% significantly (29). Such findings were also supported by other study of Donesky-Cuenco et al



(30). In addition, quality of life and lung function parameter including maximum inspiratory and expiratory volumes were also shown to improve in COPD patients after 6 weeks of yoga training (31). Reviewing these evidences indicated regular practice of yoga could help in improvement of pulmonary function and also could possibly prove beneficial for prevention and management of respiratory disorders.

### **Possible impact of yoga on immune system**

Disturbed or malfunctioning of the immune system and elevated levels of C-reactive proteins (CRP) are the chief characteristics seen in severely affected COVID19 patients (32). In the time of incubation or non-severe stages of the disease the body requires a specific adaptive immune response to eliminate the virus and stop the progression of disease to severe stages (33). Yoga practices previously were shown significant usefulness in improving the immune function as reported by many research studies thus potentially could be beneficial in COVID19 patients.

A randomized control trial reported significant reduction of CRP in the yoga group as compared to control groups in patients with heart failure and risks of inflammation (34). Infante et al. (2014) conducted a study on immune cells and anxiety in transcendental meditation practitioners and control group; it revealed that transcendental meditation practitioners have shown lower scores on the STAI anxiety scale and the slight improvement in the immune cells CD3, CD4 and CD8 compared to that of in control group (35). In other study, Yoga practice shown to have significant increase in immune-related cytokines, such as interleukin IL-12, and interferon IFN- $\gamma$ , in serum ( $p < 0.05$  or  $p = 0.01$ ) (36).

Interferon IFN-gamma acts as a central regulator of cell mediated immunity and functions as an antiviral, antitumor, and immune regulator (37). Regular practice of yoga may elevate the level of IL-2 and IFN-gamma which stimulates the cell mediated immunity (38). In a randomized control trial study, cytokines such as IFN-gamma, known involved in cell mediated immunity, were also found to increase

in the yoga group (36), and buffering effect of yoga on INF-gamma was also shown in another randomized control trial (39).

A study shows the effect of Yogic Intervention (containing loosening exercises, *surya-namaskar*, yogic postures, pranayama, and relaxation technique for one month) showed significant improvement in CD4 cell count compared to the control group (40). Further, a study was conducted on 200 breast cancer survivors who were randomized into two groups. The experimental group received 90 minutes of yoga session twice per week for 3 months and the control groups were on usual routine. At the end of 3 months post-treatment, fatigue was lowered in the yoga group ( $P = 0.002$ ), vitality was higher ( $P = 0.01$ ), and inflammatory cytokines such as IL-6 ( $P = 0.027$ ), TNF- $\alpha$  ( $P = 0.027$ ), and IL-1 $\beta$  ( $P = 0.037$ ) were lower for yoga participants when compared with the control group (41). Another study on breast cancer survivors was done to investigate the levels of inflammatory cytokine (sTNF-rII) and the result reported that sTNF-rII increased in the control group but remained stable in the yoga group indicating that yoga acts as a buffering effect on abnormal TNF alpha activity (42).

Study has shown that blocking of harmful cytokines such as IL-6, IL-1, and TNF-alpha may benefit Covid patients (33). Also higher levels of IL-6 were reported in several studies in critical patients of COVID19 (43). Several studies previously had shown that Yogic practices reduced cytokines which were known to be harmful in COVID19 patients. For example, an eight week of yoga intervention program it was seen that there was reduced harmful cytokine secretion including IL-6, TNF-alpha, IL-1-beta compared to baseline and compared to control group (11). Effectiveness of yoga in reducing the IL-1 beta is important as it plays role in acute and chronic inflammatory diseases which are usually treated by reducing IL-1 $\beta$  activity (44). The significant reduction in IL-6 was also observed in yoga groups when compared to control groups in heart failure patients (34,41,11). These findings suggest that yoga can act as a non- pharmacological



approach in reducing IL-6, IL-1, and TNF-alpha, which in present scenario, could potentially benefit COVID19 patients.

### **Potential impact of yoga on mental health**

Deteriorating mental health conditions during pandemic and increasing stress, anxiety, fear and depression could negatively affect immune system and increase the risk of acute respiratory infections (45). Ministry of AYUSH, government of India has advised to follow Yoga and Ayurveda in one's lifestyle to remain mentally healthy and boost up immunity to prevent oneself from getting infected of coronavirus (46). During the time of this pandemic outbreak, one could easily see the deterioration of mental health due to fear, anxiety, depression, and stress.

Many studies had reported the negative mental health conditions of the people during a pandemic outbreak. Some qualitative studies reported fear (47) and sleep disorders related to anxiety during quarantine at the time of SARS outbreak (48). Psychological health needs to be very strong in order to cope with any type of disease. A study conducted by Andersen et al. (1998) reported that stress inhibited the cellular immune responses including NK cells and T-cell responses (7). These reports evidenced that psychological and physiological stress needs to be lowered down in order to boost immunity against the infectious diseases.

Owing to the present condition, the rising mental health consequences during COVID19 pandemic requires early prevention and intervention. Yoga and meditation practices have been proved beneficial in managing different levels of stress, anxiety and depression as documented in many studies. A Study was conducted on 51 COVID19 patients, who were randomized into experimental and control groups; the experimental group received 30 minutes of progressive muscle relaxation for five consecutive days in a week for 45 days whereas the control group was on their usual routine; after the intervention program the average sleep quality and anxiety was significantly improved in the

experimental group compared to the control group (49).

Yogic practices also improve general and psychological wellbeing and mental health in daily life. In a study on Urban population for general wellbeing, a positive improvement was seen by the yoga intervention program, which contained *jal-neti*, *sutra neti*, *kunjaj-kriya* and *kapalbhati*, asana, pranayama and meditation for 12 weeks (50). A systematic review of effect of Yoga on psychological disorders such as depression, anxiety, obsessive compulsive disorder (OCD) and schizophrenia was conducted using 30 articles published between years 2002 to 2014; the result indicated most significant improvement in the condition of depression (51). Another study reported the efficacy of yoga on anxiety, depression and stress on 68 breast cancer women undergoing the radiotherapy treatment (52). In one of the study, it was found that stress, anxiety and depression in 31 patients undergoing hemodialysis were significantly reduced ( $p < 0.001$ ) from baseline scores by the two months practice of *Hatha-yoga* package and also compared to that of control group (53). In addition, a four week intervention of *Sudarshan-kriya*, a yogic breathing practice along with guided meditation was given to 31 patients with generalized anxiety disorders (GAD); the results showed significant reduction in anxiety scores compared to the baseline (54). All these evidences indicated the promising benefits of yoga practices in improving the mental health conditions and promoting the psychological well being of the person, thus, indicating potential role of Yogic practices for mental health especially in COVID19 era.

### **Conclusion**

First half of year 2020 has proven a challenging time for the world in the time of COVID19 pandemic. With dire need of finding treatment solutions and support for COVID19 patients, the present study shed a light that Yogic practices could potentially aid in the fight against COVID19. Yoga helped in reducing inflammatory factors CRP, harmful cytokines - Interleukin-1-beta, interleukin IL-6, and





TNF- alpha. It was also helpful in increasing immunoglobins IgG, cytokines interleukin-12 and interferon- $\gamma$  (INF- $\gamma$ ) for improving immunity. In diabetic patients yoga was beneficial in increasing insulin sensitivity, glucose tolerance, glycemic control, and in reducing HbA1C level. Apart from this yoga significantly reduced systolic and diastolic blood pressure; in reducing the symptoms of asthma, hypoxemia, dyspnea and other respiratory disorders, by improving pulmonary function, and oxygen saturation in blood. It was also useful in reducing stress, depression, and anxiety, and also improved general well being, happiness, quality of life and sleep.

Summarily, the presented review of previously published studies on Yoga evidenced the beneficial effect of yoga in improving the immune function, diabetic-cardiovascular-respiratory conditions, and mental health, which is very important during the period of incubation and progression of COVID19 towards severe condition globally, thus, indicating potential utility of yoga as an adjunct therapy in the prevention and management of COVID19.

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Research Article

## हठयोगिक ग्रंथों में कफ संबंधी दोषों को दूर करने के लिये वर्णित योगिक विधिया : कोविड-19 महामारी के विशेष संदर्भ में

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**सारांश.** योग एक प्राचीन विद्या है जिसका अभ्यास सहस्रों शताब्दियों से आत्म कल्याण हेतु किया जाता रहा है। आत्मकल्याण का सार मानव कल्याण में निहित है इन दोनों ही उद्देश्यों की प्राप्ति योग के द्वारा हो सकती है। वर्तमान समय में व्याप्त कोविड-19 (कोरोना वायरस डिसीज-19) रोग के संभावित समाधान के रूप में योगाभ्यास एक प्रभावी साधन सिद्ध हो सकता है। योग केवल शरीर को ही स्वस्थ नहीं बनाता अपितु मन को भी स्वस्थ करता है। योग रूप ज्ञान गंगा की विभिन्न धाराएं हैं जैसे हठयोग, राजयोग, कर्मयोग, ज्ञानयोग, भक्तियोग। इनमें से हठयोग व्यावहारिक स्तर पर किया जाने वाला एक अभ्यास है जिसका सिद्धांत है कि शरीर के माध्यम से मन और आत्मा को भी विकसित किया जा सकता है। भारतीय ज्ञान के अक्षय भण्डार में समग्र समस्याओं का हल निहित है। योग तथा आयुर्वेद के माध्यम से विभिन्न समस्याओं का समाधान मिलता रहा है। प्रस्तुत शोध पत्र में कफ दोषों को दूर करने के लिए हठयोग के ग्रंथों में वर्णित अभ्यासों का समावेश किया गया है जिसके ज्ञान से प्रबुद्ध जनसामानान्य लाभान्वित हो सके। इन योगाभ्यासों के अंतर्गत षट्कर्म, आसन, मुदा-बंध तथा ध्यान जैसे अभ्यासों का वर्णन किया गया है। ये सभी अभ्यास कोरोना जैसे महामारी के लिए एक संभावित सहायक चिकित्सा पद्धति सिद्ध हो सकती है।

**कूटशब्द.** कोविड-19, हठयोग, कफ संबंधी दोष, षट्कर्म, आसन, प्राणायाम, ध्यान।



## प्रस्तावना

वर्तमान परिस्थितियों में एक भयानक महामारी कोविड-19 कोरोना के रूप में एक वैश्विक समस्या का रूप ले चुकी है अभी तक इसका कोई भी स्थाई निराकरण नहीं हो सका है। इसका समाधान मात्र सावधानी के अतिरिक्त और कुछ नहीं है। ऐसे समय में भारतीय ज्ञान एवं संस्कृति की ओर निहारने पर थोड़ी सी उम्मीद की किरण दिखाई पड़ रही है जो योग एवं आयुर्वेद जैसे गूढ़ विद्या में निहित है।

कोविड-19 संसार के लिए विकट समस्या है, यह चीन के वुहान से लेकर चलकर संपूर्ण संसार फैल में चुकी है। यह समस्या इतनी विकट और विकराल हो चुकी है, अब तक संपूर्ण विश्व के मनुष्य काल के गाल में लगभग डेढ़ लाख से अधिक लोग समा चुके हैं एक रिपोर्ट के अनुसार 29 मई 2020 तक संक्रमित व्यक्ति 5,925,659 तथा मृत्यु प्राप्त व्यक्ति 362,555 हैं (1)।

इस समस्या का अभी तक इसका कोई आदि और अंत नहीं दिख रहा पा रहा है विज्ञान भी अभी इसके कारण तक पहुंचने में असमर्थ रहा है, केवल जानकारी के तौर पर इतना ही पता चल सका है यह एक व्यक्ति से दूसरे व्यक्ति में सांस के माध्यम से संपर्क के माध्यम से आसानी से फैल रहा है।

गिरीश एवं अन्य ने अपने एक शोध पत्र में बताया है कि कोविड-19 महामारी में आयुर्वेद तथा योग एक सहायक चिकित्सा पद्धति के रूप में उभर रहा है (2)। आयुर्वेद के औषधीय प्रभाव से रोगी के प्रतिरोधी क्षमता को मजबूत बनाया जाता है तथा योग के द्वारा शारीरिक तथा मानसिक स्तर सबल बनता है। कोविड-19 के उपचारात्मक विश्व स्वास्थ्य संगठन के द्वारा दी गई मार्गदर्शिका में स्वच्छता का विशेष ध्यान देने को कहा गया है, क्योंकि इसे संक्रामक रोग माना गया है। (3)। परंतु पाश्चात्य परंपरा की अंधी दौड़ में मनुष्य मात्र ने भारतीय संस्कृति की उपेक्षा की है जिसके परिणाम स्वरूप हम आज संक्रामक रोग से लड़ने के लिए पुनः प्रशिक्षण लेकर अपने जीवन की रक्षा करने को विवश है। हमें आज पुनः भारतीय संस्कृति भारतीय साहित्य भारतीय परंपरा की ओर पैनी दृष्टि से देखने की जरूरत है। इसी क्रम में भगवान शिव द्वारा प्रदत्त ज्ञान के अंतर्गत हठयोग के ग्रंथों में षट्कर्म, आसन, प्राणायाम, ध्यान आदि चिकित्साओं का प्रयोग किया जा सकता है।

तनाव और अवसाद में मानसिक अस्वस्थता की स्थिति उत्पन्न होती है जो तीव्र श्वसन संक्रमण का खतरा बन सकता है (4)। प्राणायाम के द्वारा फेफड़ों की कार्यक्षमता में सुधार होता है (5)। ध्यान एक विशिष्ट प्रतिरोधी क्षमता के रूप में कार्य करता है (6)।

कोरोना जैसी महामारी से लड़ने में योग चिकित्सा एक सहज व सरल चिकित्सा सिद्ध हो सकती है। अतः प्रस्तुत शोध में इस प्रकार के कुछ विशिष्ट योगाभ्यासों का हठयोगिक ग्रंथ के संदर्भ में विवेचन किया गया है।

## हठयोग: परिचय

योग एक प्राचीन विद्या है। योग के विभिन्न अभ्यास जैसे आसन, प्राणायाम, ध्यान आदि प्रचलित साधनाएँ अमूल्य धरोहर के रूप में रही है, जिसका प्रमाण विभिन्न प्राचीन ग्रंथों में मिलता है। योग की अनेक शाखाएँ हैं जैसे हठयोग, राजयोग, कर्मयोग, ज्ञान योग, भक्ति योग, लय योग, कुंडलिनी योग आदि। मंत्रयोग, हठयोग, लययोग, राजयोग मुख्य चार प्रकार के योग हैं (7)।

हठयोग व्यावहारिक अभ्यास की प्रक्रिया है जिसके द्वारा व्यक्ति शरीर की शुद्धि के माध्यम से आत्म शुद्धि कर सकता है। श्रीमद्भगवद्गीता-6/34 के अनुसार मन का नियंत्रण कठिन है (8), जिसे अपने मन पर नियंत्रण नहीं उसे मन की शांति नहीं मिल सकती। जिसे मन की शांति नहीं उसे सुख कैसे मिल सकता है (9)। अतः एक सामान्य मनुष्य शरीर की शुद्धि करके, रोगरहित होकर सरलता पूर्वक आत्मशांति प्राप्त कर सकता है। हठयोग की उत्पत्ति आदिनाथ शिव द्वारा हुई है।

## हठयोग की परिभाषा

हठ शब्द में 2 वर्ण हैं - ह और ठ जिनके निम्न अर्थ है। 'हकारः कीर्तितः सूर्यष्टकाश् चंद्र उच्यते। सूर्याचंद्रमसो योगात् हठयोगो निगद्यते' - सिद्ध सिद्धांत पद्धति-1/69। हकार को सूर्य, तथा ठकार को चंद्र कहा गया है। हकार और ठकार का योग ही हठ साधना है (10)।



|         |         |
|---------|---------|
| ह       | ठ       |
| 'ह' कार | 'ठ' कार |
| सूर्य   | चंद्र   |
| पिगला   | इड़ा    |
| दिन     | रात     |
| शिव     | पार्वती |

### हठयोग ग्रंथों में वर्णित चिकित्सा

कोविड-19 महामारी के लक्षण लोगों में निम्न रूप से जाने जा सके हैं जैसे तीव्र ज्वर का आना, खांसी-कफ का होना, नासिका द्वारा द्रव्य का बहना, निर्जलीकरण व उल्टी आदि का होना आदि लक्षण के रूप में जाने जा सके हैं। विशेषज्ञों का कहना है कि यह मुख्यतः गले से प्रारंभ होकर फेफड़े में पहुंचकर समस्या उत्पन्न करता है, कुछ ही दिनों में शरीर की रोग प्रतिरोधी क्षमता का क्षरण कर मनुष्य को मृत प्राय कर देता है।

योग के विभिन्न ग्रंथों जैसे घेरंड संहिता, वशिष्ठ संहिता, हठ प्रदीपिका, हठरत्नावली, सिद्ध-सिद्धांत पद्धति, गोरख संहिता में वात पित्त तथा कफ संबंधी दोषों को दूर करने की ऐसी विशिष्ट विधाएं वर्णित है, विशेषकर कफ की अधिकता होने पर षट्कर्म का अभ्यास बताया गया है, साथ ही अन्य अभ्यास जैसे आसन, प्राणायाम, ध्यान आदि कोरोना जैसे संक्रामक रोगों में अत्यंत लाभप्रद सिद्ध हो सकते हैं। विभिन्न ग्रंथों में संदर्भित योगाभ्यास का वर्णन निम्न प्रकार है।

#### षट्कर्म

इसके अंतर्गत 6 प्रकार की शुद्धि क्रियाओं का वर्णन है (11) – 'धौतिर्बस्तिस्तथा नेतिस्त्राटकं नौलिकं तथा कपालभातिश्चैतानि षट्कर्माणि प्रचक्षते'- हठ प्रदीपिका 2/221

धौति, बस्ति, नेति, त्राटक, नौलि तथा कपालभाति ये छः क्रियाएं हैं। इनसे शरीर के सभी अंगों की सफाई होती है। शीर्ष प्रदेश से लेकर गुदा मार्ग की शक्ति हेतु चार पदार्थ प्रयुक्त होते हैं - 1. जल, 2. कपड़ा, 3. वायु, 4. अग्नि जठराग्नि।

इन सभी षट्कर्मों का संक्षिप्त परिचय निम्न प्रकार है –

|           |  |
|-----------|--|
| धौति      | इससे अमाशय और अन्न नलिका की सफाई होती है।  |
| बस्ति     | यह एक यौगिक एनिमा है। गुदा द्वार से जल खींचकर बड़ी आंत की सफाई की जाती है।   |
| नेति      | इसके द्वारा नाक, कान और गले की सफाई होती है।   |
| नौलि      | यह पेट की सभी अंगों की मालिश करता है। पाचन संबंधी दोष दूर होता है।   |
| त्राटक    | इस क्रिया से नेत्रों व तंत्रिका तंत्र संबंधी रोग दूर होता है।  |
| कपाल भाति | यह विशेषकर फेफड़ों से संबंधित विकारों को दूर करने में प्रभावी अभ्यास है। साथ ही साथ रक्त भी शुद्ध होता है। यह अभ्यास प्राणायाम के रूप में भी किया जाता है। |

घेरंड संहिता में वर्णित कफ संबंधी दोषों को दूर करने के लिये धौति प्रक्रिया

1. जिह्वा मूल धौति - जिह्वा शुद्ध होने पर जिह्वा की लंबाई बढ़ती है। इसके लिए तर्जनी, मध्यमा, अनामिका तीनों उंगलियों कंठ में डालकर जिह्वा के जड़ की सफाई करें। सफाई के बाद थोड़ा मक्खन लगाकर दूध दुहने जैसी क्रिया करते हैं। इस अभ्यास से व्याधि, बुढ़ापा, मृत्यु को दूर किया जा सकता है।
2. कपालरंध्र धौति - इस अभ्यास के लिए दाहिने हाथ की उंगलियों को समेटकर एक कप की आकृति बनाकर पानी भर कर कपाल रंध्र (ब्रह्म रंध्र) में थपकी दी जाती है। इस अभ्यास के द्वारा कफ दोष से मुक्ति, सिर के ऊपर भाग की नाड़ियां निर्मल होती हैं।
3. हृद्घौति - इसका अर्थ है हृदय क्षेत्र के आसपास के अंगों की सफाई। इसके तीन भेद हैं - दंड धौति, वमन धौति, वस्त्र (वसन) धौति।
4. दंड धौति - इस अभ्यास के लिए केले, हल्दी के कोमल डंडे (बेंत) को मुख द्वारा अमाशय में डालकर कर धीरे धीरे निकालना चाहिए। फिर कफ, पित्त, क्लेद (श्लेष्मा) का मुख से रेचना आधा इंच व्यास का डंडा, लंबाई लगभग 4 - 5 इंच लंबा किंतु वर्तमान में रबर के कैथेटर का प्रयोग किया जाता है।
5. वमन धौति - वमन का सामान्य अर्थ है कै (उल्टी) करना। भोजन के अंत में कंठ तक जल पीकर, क्षणभर ऊपर देखने के बाद वमन से निकाल देना चाहिए। यह अभ्यास कफ



पित्त नाशक है। स्वामी निरंजनानंद सरस्वती (12) ने घेरण्ड संहिता की व्याख्या में वमन धौति के दो प्रकार बताए हैं -1. कुंजल क्रिया (खाली पेट - स्वस्थ स्थिति में भी), 2. व्याघ्र क्रिया - भोजन के बाद (रोग की अवस्था में)

6. वस्त्र धौति - इसके द्वारा गले व अन्न नलिका, आमाशय को कपड़े द्वारा साफ किया जाता है। इस अभ्यास के लिए चार अंगुल चौड़ा (लगभग 2 इंच तथा लंबाई लगभग 6-7 गज)। महीन वस्त्र धीरे-धीरे निगलना चाहिए फिर बाहर करना चाहिए। इस अभ्यास के द्वारा गुल्म, ज्वर, प्लीहा, कुष्ठ, कफ, पित्त विकार का शमन होता है। आरोग्य व बल की वृद्धि होती है।

*हठ प्रदीपिका में वर्णित कफ संबंधी दोषों को दूर करने के लिये प्रक्रियाएं*

वस्त्र धौति के अभ्यास से खासी, दमा, तिल्ली, कुष्ठ, 20 प्रकार के कफ रोग दूर होते हैं। बस्ति - इसके अंतर्गत जल बस्ति का वर्णन किया गया है। इस अभ्यास के लिए उत्कटासन बैठकर में गुदा का संकुचन किया जाता है। वायु गोला, दिल्ली, जलोदर, वात पित्त कफ जन्य रोग अभ्यास से दूर होते हैं (11) (पृ. 46- 48)।

*हठरत्नावली में शुद्धि क्रिया के लिए अष्टकर्म*

हठरत्नावली ग्रंथ के प्रणेता श्रीनिवास भट्ट जी हैं। इसमें शुद्धि क्रिया के लिए अष्टकर्म का वर्णन है। अष्टकर्म का अर्थ है आठ प्रकार की क्रियाएं जिनके द्वारा शरीर की शुद्धि की जाती है। ये अष्टकर्म हैं- चक्रि, नौलि, धौति, नेति, वस्ति, गजकरणी त्राटक, मस्तकभ्रांति। यहां गजकरणी वमन धौति की तरह है तथा मस्तकभ्रांति का अर्थ कपालभांति ही है (13)।

श्रीनिवास भट्ट जी ने इनमें से चक्रि कर्म को सबसे महत्वपूर्ण बताया है। कफ दोष की निवृत्ति के लिए वस्त्र धौति का अभ्यास बताया गया है। श्रीनिवास भट्ट के अनुसार इसके अभ्यास से 20 प्रकार के कफ संबंधी रोगों की निवृत्ति होती है।

इसके अतिरिक्त जल बस्ति का भी वर्णन किया गया है। इस अभ्यास के लिए नाभि तक जल होना चाहिए, विचित्र करणी करके जल को बाहर करना चाहिए। बस्ति के बाद तीन घड़ी (72 मिनट) तक खाना

नहीं चाहिए। इसका लाभ है की गुल्म रोग, प्लीहा रोग, वात पित्त कफ का नाश, पेडू के रोग, अंतःकरण प्रकाशित, जठराग्नि प्रदीप्त, जीर्ण रोग शांत होते हैं।

**षट्कर्म के शारीरिक एवम मानसिक स्तर पर प्रभाव पर हुए शोध कार्य**

मान, ए. तथा बलोदी, एच. (14) ने अपने शोध में 60 प्रयोज्यो को 12 सप्ताह तक षट्कर्म का अभ्यास कराया, जिसमें वस्त्र-धौति, जल-नेति, वस्ति, शंख-प्रक्षालन, त्राटक, नौलि, अग्निसार का चयन किया गया था। प्रयोज्यो को दो समूह (प्रायोगिक और नियंत्रित) में विभाजित किया गया था शोध के परिणाम से ज्ञात हुआ कि षट्कर्म के अभ्यास से प्रसन्नता स्तर में वृद्धि होती है।

पात्रा, एस. के. (15) ने बताया है कि षट्कर्म का शारीरिक स्तर पर सकारात्मक प्रभाव पड़ता है। इसी प्रकार शेल्वे, एस ए (16) ने कुंजल का प्रभाव मोटापा रोग पर देखा; अध्ययन से ज्ञात हुआ की कुंजल जिसे हठयोग के ग्रंथों में वमन-धौति के रूप में बताया है, का अभ्यास करने पर काफ दोष में कमी आती है तथा स्थूलता कम होती है। इस प्रकार इन सभी शोध अध्ययनों से यह ज्ञात होता है की षट्कर्म अर्थात् शुद्धि प्रक्रियाओं का शरीर के साथ-साथ मन पर भी सकारात्मक पराभव पड़ता है।

**आसन**

आसनों के द्वारा शारीरिक स्थिरता के साथ-साथ मानसिक स्थिरता भी होती है। घेरण्ड संहिता में श्वसन संबंधी तथा कफ संबंधी समस्याओं को दूर करने के लिए कुछ विशिष्ट आसनों का वर्णन भी मिलता है।

1. गोमुखासन - गौ के मुख की भांति पैरों के घुटनों को रखते हुए हाथों को पीठ के पीछे रखते हैं। स्वामी निरंजनानंद सरस्वती के अनुसार यह अभ्यास फेफड़ों की कार्यक्षमता में वृद्धि करता है (11) (पृ. 147-148)।
2. मत्स्यासन - पद्यासन की स्थिति में लेट जाते हैं तथा हाथों से पैर के अंगूठे पकड़ते हैं। सावधानियां हैं हृदय रोग हर्निया अल्सर गंभीर रोग तथा गर्भवती महिलाएं न करें। इसके अतिरिक्त अनेक आसन भी हैं जिनका श्वसन तंत्र पर प्रभाव पड़ता है।



## प्राणायाम

यह एक उच्चस्तरीय अभ्यास है जिसके द्वारा प्राणशक्ति का अभिवर्द्धन होता है। स्थूल रूप में यह हमारे श्वसन तंत्र में कार्यरत हैं किन्तु सूक्ष्म रूप में यह समग्र शरीर को क्रियान्वित करने में योगदान देता है। फलस्वरूप प्राणायाम के अभ्यास से जीवनीशक्ति का अभिवर्द्धन होता है। सेनगुप्ता, पी (17) ने अपने अध्ययन में पाया कि प्राणायाम जैसे योग के अभ्यास के द्वारा विभिन्न रोगों का निदान प्राप्त कर सकते हैं योगाभ्यास से न्यूरो-हार्मोनल स्तर में संतुलन होता है तथा तंत्रिका तंत्र सबल होता है इस प्रकार किसी भी रोग के होने के पूर्व ही हम शरीर और मन की संतुलित स्थिति प्राप्त कर सकते हैं। यही नहीं, हम गंभीर रोगों जैसे कैंसर पर भी कुछ सीमाओं तक लाभ प्राप्त कर सकते हैं।

प्राणायाम को महर्षि पतंजलि (18) परिभाषित करते हैं कि 'तस्मिन् सति श्वासप्रश्वासयोगतिविच्छेदः प्राणायामः' - पा. यो. सू. 2/49 आसन की सिद्धि होने के बाद श्वास और प्रश्वास की गति का स्थिर हो जाना प्राणायाम कहलाता है।

प्राणायाम से मन भी नियंत्रित होता है। हठ प्रदीपिका में यहां तक कहा गया है कि वायु के चलायमान होने पर चित्त भी चलायमान होता है तथा वायु के स्थिर हो जाने पर चित्त भी स्थिर हो जाता है (11) (पृ. 35)। 'चले वाते चलं चित्तम निश्चले निश्चलम भवेत्' - हठप्रदीपिका 2/2 महर्षि पतंजलि (18, पृ. 67) कहते हैं प्राणायाम के द्वारा धारणा हेतु मन की योग्यता प्राप्त होती है तथा ज्ञान के आवरण का नाश होता है - पा.यो.सू. -2/53-54। इस प्रकार स्पष्ट है कि प्राणायाम का प्रभाव केवल शारीरिक स्तर पर ही नहीं अपितु मानसिक स्तर पर भी पड़ता है।

### योगबीज के अनुसार प्राणायाम

यह ग्रंथ आदिनाथ शिव जी द्वारा प्रणीत है जिसमें उन्होंने पार्वती जी को हठयोग का ज्ञान दिया है। इस ग्रंथ में चार प्राणायामों का वर्णन है- सूर्यभेद, उज्जायी, शीतली तथा भस्त्रिका प्राणायाम। इनमें से सूर्यभेद, उज्जायी तथा भस्त्रिका प्राणायाम कफजन्य रोगों में लाभप्रद बताया गया है (19)।

## कफ संबंधी दोषों का नाश करने वाले कुछ विशेषकर प्राणायाम

### 1. उज्जायी प्राणायाम

इस अभ्यास के लिए मुख को बंद करके नासिका मार्ग से कुछ आवाज के साथ धीरे-धीरे श्वास लिया जाता है तथा बाएं नासिका से किया जाता है। हठ प्रदीपिका (11) (पृ. 57-58) में दी गई विधि के अनुसार रेचक की प्रक्रिया बाएं नासिका इडा नाड़ी से की जाती है। घेरंड संहिता में वर्णित उज्जायी प्राणायाम में अंतः कुंभक में जालंधर बंध का प्रयोग बताया गया है। इस अभ्यास के द्वारा कफजन्य कंठ दोष दूर होता है और जठराग्नि प्रदीप्त होती है। किंतु कुछ सावधानियों का भी ध्यान रखना चाहिए, जो हृदय रोग से पीड़ित व्यक्तियों को बंधन कुंभक के साथ इस प्राणायाम का अभ्यास नहीं करना चाहिए। स्लिप डिस्क और कशेरूका संधि शोथ की अवस्था में इस प्राणायाम का अभ्यास मकरासन में कर सकते हैं।

### 2. शीतली प्राणायाम

घेरंड संहिता वर्णित में शीतली प्राणायाम की विधि है - जिह्वा को नलीनुमा बनाते हुए मुख से पूरक किया जाता है तथा कुछ समय तक कुंभक करने के बाद नासिका मार्ग से रेचक किया जाता है। इस स्थिति में मुख को बंद रखा जाता है। इस अभ्यास के लिए कोई विशेष सावधानी नहीं बताई गई है। इस अभ्यास के द्वारा भी कफ दोष दूर होते हैं (12) (पृ. 321-322)।

### 3. भस्त्रिका प्राणायाम

हठ प्रदीपिका (11, पृ. 64) के अनुसार यह प्राणायाम कफजन्य विकारों के लिए लाभप्रद है। इसके अभ्यास के लिए पद्मासन की स्थिति बताई गई है। मुंह बंद करके के साथ नासिका से रेचक जिसका अनुभव हृदय और कपाल तक होना चाहिए। इसी प्रकार वेग पूर्वक आवाज के साथ पूरक की क्रिया और पुनः रेचक की क्रिया। अर्थात् बार-बार पूरक रेचक की क्रिया करते हैं। ऐसा करने पर जब शरीर में थकान आती है तो दाएं नासिका से पूरक करने के पश्चात कुंभक करते हैं तथा तत्पश्चात बाएं नासिका से रेचक किया जाता है तब यह प्राणायाम पूर्ण होता है। इस अभ्यास के द्वारा वात पित्त और कफ संबंधी समस्या दूर होती है। किंतु इस बात का विशेष ध्यान रखना चाहिए कि श्वास की गति को नियंत्रित करते हुए प्राणायाम करें बलपूर्वक श्वसन ना करें। प्रारंभिक स्तर के अभ्यास में प्रत्येक आवृत्ति के पश्चात विश्राम करना चाहिए। उच्च रक्तचाप, हृदयरोग, हर्निया, मिर्गी से पीड़ित





व्यक्तियों को यह प्राणायाम नहीं करना चाहिए। दमा, ब्रोंकाइटिस, टीबी, यक्ष्मा से पीड़ित कुशल मार्गदर्शन में ही यह अभ्यास करना चाहिए। गर्मी के दिनों में यह अभ्यास कम करना चाहिए।

### मुद्रा एवं बंध

मुद्रा एवं बंध का संबंध शरीर में स्थित सूक्ष्म शक्ति केंद्रों से है। मुद्रा बंध के द्वारा इन स्थानों को जागृत और क्रियान्वित किया जाता है जिसके द्वारा स्थिरता की प्राप्ति होती है। घेरंड संहिता (12) (पृ. 205) में 25 बंध एवं मुद्राओं का वर्णन है जिनके द्वारा सर्दी आदि 20 प्रकार के कफ दोष की भी निवृत्ति होती है।

25 मुद्राएं इस प्रकार हैं - महामुद्रा, नभोमुद्रा, उड्डियान, जालंधर, मूलबंध, महाबंध, महाबेध, खेचरी, विपरीत करणी, योनि-मुद्रा, वज्रोणी, शक्ति चालिनी, ताड़ागी, मांडूकी, शांभवी, 5 धारणाएं (पार्थिवी, आम्भसी, आग्नेयी, वायवीय, आकाशी), अश्विनी, पाशिनी, काकी, मातंगी, भुजंगिनी मुद्रा।

इनमें से कुछ सरल मुद्राओं का वर्णन इस प्रकार है जिसे व्यक्ति सरलता पूर्वक कर सके।

- मूलबंध के अभ्यास के लिए गुदा एवं प्रजनन अंग के मध्य स्थान का संकुचन किया जाता है।
- जालंधर बंध के अभ्यास में टुड्डी को गले के नीचे कंठकूप में लगाते हैं।
- उड्डियान बंध के अभ्यास हेतु पेट को पीछे करते हुए ऊपर की तरफ खींचते हैं। खेचरी मुद्रा के अभ्यास के लिए जीभ के अग्रभाग से तालु को स्पर्श करते हैं।
- शांभवी मुद्रा में दोनों आंखों की पुतलियों को आज्ञा चक्र की ओर करते हुए भ्रू मध्य को देखने का प्रयास किया जाता है।
- काकी मुद्रा के लिए होठों को कौवे के चौथ की आकृति देते हुए मुख के द्वारा पूरक करना तथा नासिका मार्ग से रेचक करते हैं।
- अश्विनी मुद्रा के अभ्यास के लिए गुदा का संकुचन एवं प्रसारण करते हैं।

इन अभ्यासों के द्वारा केवल शारीरिक स्तर पर ही नहीं अपितु मानसिक स्तर पर भी सकारात्मक प्रभाव पड़ता है। एक शोध (20) के परिणाम में बताया गया है कि मूलबन्ध का 30 दिनों तक अभ्यास करने पर शोध से ज्ञात हुआ कि श्रोणि प्रदेश से समबन्धित समस्या के लिए लाभप्रद होता है। इसी प्रकार एक अन्य शोध के प्राप्त परिणाम के अनुसार शांभवी मुद्रा के द्वारा तनाव पर तथा जनरल वेल बीइंग पर भी सकारात्मक प्रभाव पड़ता है (21)।

### ध्यान

कोविड-19 जैसे रोग की स्थिति में मानसिक तनाव भी उत्पन्न हो जाता है, जिसमें यह अभ्यास सहायक सिद्ध हो सकते हैं। ध्यान का संबंध मन से है और मन की महिमा प्रत्येक महापुरुष और प्रत्येक ग्रंथों द्वारा वर्णित है। यह एक सर्वविदित तथ्य है कि विषम परिस्थितियों में यदि मन सकारात्मक हो तो उन परिस्थितियों को भी सकारात्मक बनाया जा सकता है। साथ ही साथ मन की दृढ़ इच्छाशक्ति होने पर प्रतिरोधी क्षमता में भी वृद्धि हो सकती है। कहा भी गया है मन के हारे हार है मन के जीते जीत। मन को सही दिशा देने के लिए तथा मन को श्रेष्ठ विचारों में स्नान कराने के लिए ध्यान की प्रक्रिया अत्यंत महत्वपूर्ण है।

विभिन्न ग्रंथों में ध्यान के अलग-अलग प्रकारों व विधियों की चर्चा है। प्रमुखतः ध्यान के दो प्रकारों की चर्चा है - साकार व निराकार। साकार ध्यान में व्यक्ति किसी भी इष्ट, देवता, आदि को लक्ष्य करके ध्यान कर सकता है। निराकार ध्यान में किसी भी सूक्ष्म लक्ष्य को ध्यान का विषय बनाया जाता है। जैसे प्रकाश, ज्योति आदि का ध्यान। ध्यान हेतु 10 मिनट 30 मिनट के मध्य की अवधि निर्धारित की जा सकती है।

### उपसंहार

निष्कर्ष रूप में यह स्पष्ट है कि कोविड-19 का स्थाई समाधान अभी तक नहीं है किंतु योग एवं आयुर्वेद के द्वारा कुछ हद तक इसे दूर किया जा सकता है। योग एक आदर्श एवं उपयुक्त जीवन शैली की पद्धति है जिसके द्वारा व्यक्ति अपने जीवनी शक्ति तथा प्रतिरोधक शक्ति को विकसित कर सकता है। योगाभ्यास के द्वारा शरीर के विभिन्न तंत्रों को सक्रिय बनाया जाता है साथ ही विजातीय तत्वों का भी निष्कासन भी होता है।



हठयोग एक व्यावहारिक योगाभ्यास की प्रक्रिया है, जिसके अंतर्गत षट्कर्म, आसन, प्राणायाम आदि अभ्यास समस्त शरीर अंगों की शुद्धि करते हैं। कोविड-19 से पीड़ित व्यक्ति की प्रतिरोधी क्षमता कम होती है तथा श्वसन तंत्र कमजोर होने लगता है। हठयोग के अंतर्गत ऐसे अनेक अभ्यास हैं जिनके द्वारा श्वसन तंत्र मजबूत बनाया जा सकता है, साथ कफ संबंधी दोष भी दूर होते हैं। इस रोग से ग्रसित होने के पूर्व ही यदि व्यक्ति उचित आहार-विहार के साथ-साथ योगाभ्यास करते हुए इन्हें जीवन का अनिवार्य अंग बना सके तो निश्चित ही वह कोविड-19 जैसे महामारी से लड़ने में सक्षम हो सकता है।

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Research Article

# Study of Positive communication during a disaster: With the special reference to the COVID19 pandemic

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**Abstract.** Man is the Social animal of the constantly changing society. Social changes sometimes bring pleasant conditions for human beings and sometimes crises. In a disaster, human beings face similar crises. It often takes a lot of time for society to recover from such a crisis; many times it makes the conditions favorable again. In such a disaster, positive communication has played a special role in adapting to the crisis. Currently, the whole world is going through the crisis of coronavirus COVID19 pandemic (in the first half of year 2020). The World Health Organization declared it as a global disaster in January 2020. India also not remained untouched by the COVID19 pandemic. *Janata Karfu* (self-imposed quarantine) was imposed in India on 22 March 2020. Since then the order of lockdown was issued throughout India and it was declared as a national disaster. The Indian public has not faced such a crisis in modern times and they do not know how to overcome such a crisis. Deserted roads, deserted villages - cities, as if imprisoned in humans are resultant of the corona crisis period. No one has ever seen such a scene before. In such times, communication and information make a very important contribution. People are attracted by the nature of information and communication takes place. Mass communication carries through journalism and information reaches everyone. In such a situation, both positive and negative communication should be seen. While negative communication awakens feelings of fear, tension, violence, alertness to some extent, etc., positive communication brings fearlessness, courage, happiness, joy, etc. In this research paper researchers due have given rationale examples of positive communication. Through this paper, researchers have explored the various role of positive communication in a possible crisis time. The role and presence of positive communication during Corona crisis period studied in this paper.

**Keywords.** Disaster, Positive Communication, Positive Journalism



Research Article

# आपदाकाल में सकारात्मक संचार : कोरोना संकट काल के विशेष संदर्भ में एक अध्ययन

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**सारांश.** मनुष्य एक सामाजिक प्राणी है। जबकि समाज परिवर्तनशील है। सामाजिक परिवर्तन कई बार मानव के लिए सुखद परिस्थिति लाता है तो कई बार संकट कालीन स्थिति। आपदा काल में मनुष्य को ऐसे ही संकटों का सामना करना पड़ता है। ऐसे संकट काल से उबरने में समाज को कई बार काफी समय लगता है, तो कई बार वह जल्द ही परिस्थितियों को अनुकूल बना लेता है। ऐसे आपदाकाल की विषम परिस्थितियों को अनुकूल बनाने में सकारात्मक संचार का विशेष योगदान रहा है। वर्तमान में पूरा विश्व कोरोना वायरस के संकट से गुजर रहा है। विश्व स्वास्थ्य संगठन ने इसे जनवरी 2020 में वैश्विक आपदा घोषित किया है। भारत भी कोरोना संकट से अछूता नहीं रहा। भारत में २२ मार्च 2020 को जनता कर्फ्यू लगाया गया। इसके बाद से ही पूरे भारत में लॉकडाउन का क्रम जारी हुआ और इसे राष्ट्रीय आपदा घोषित किया गया। भारतीय जनता ने प्रथम बार ऐसे संकट का सामना किया। जिसमें उसे ज्ञात ही नहीं की ऐसे संकट से कैसे उबरा जाए। सुनसान सडकें, सुनसान गांव-शहर, मानो मानव पिजड़े में कैद हो। ऐसा दृश्य इससे पहले कभी किसी ने नहीं देखा। ऐसे समय में संचार-सूचनाओं का अत्यंत महत्वपूर्ण योगदान होता है। जैसी सूचना होगी, जैसा संचार होगा मनुष्य उसी ओर आकर्षित होता है। पत्रकारिता के माध्यम से जनसंचार होता है एवं सूचनाएं सभी तक पहुंचती हैं। ऐसे में सकारात्मक एवं नकारात्मक दोनों तरह के संचार देखने को मिलें। नकारात्मक संचार जहां भय, तनाव, हिंसा आदि के भाव जगाता है वहीं सकारात्मक संचार निर्भयता, साहस, सुख-आनन्द, आदि का संचार करता है। यहां सकारात्मक संचार के उदाहरणों से यह समझने का प्रयास किया गया कि संकट काल में किस-किस तरह के सकारात्मक संचार संभव है। कोरोना संकट काल में सकारात्मक संचार की भूमिका का अध्ययन किया गया है।

**कूटशब्द.** आपदा, सकारात्मक संचार, सकारात्मक पत्रकारिता।



## भूमिका

आपदा का तात्पर्य प्राकृतिक या मानव निर्मित कारणों से होने वाली दुर्घटना, आपदा या गंभीर घटना से है जिसे प्रभावित समुदाय द्वारा तुरंत रोका या निपटाया नहीं जा सकता है। भूकंप, चक्रवात, सूखा, बाढ़ आदि प्राकृतिक आपदाओं में से कुछ हैं, जिसके परिणामस्वरूप जान और माल की भारी हानि होती है। आपदाओं का प्रत्यक्ष या अप्रत्यक्ष प्रभाव, प्राकृतिक या मानव निर्मित, व्यापक क्षति, विनाश और मृत्यु है।

एक आपदा एक आकस्मिक घटना है, जो किसी समुदाय या समाज के कामकाज को गंभीर रूप से परेशान करती है और मानव, सामग्री, और पर्यावरणीय नुकसान का कारण बनती है जो समुदाय या समाज के अपने संसाधनों का उपयोग करने की क्षमता से अधिक होती है। हालांकि अक्सर प्रकृति के कारण आपदाएँ होती हैं किन्तु मानव द्वारा भी आपदाओं की उत्पत्ति हो सकती है जैसे कि मानव लापरवाही के कारण परमाणु संयंत्र में बड़ी आग या रिसाव।

अचानक होने वाली भयावह और विध्वंशकारी घटना जिससे बड़े स्तर पर भौतिक क्षति होती है और भारी जान-माल का नुकसान होता है। अर्थात् आपदा से तात्पर्य किसी क्षेत्र में हुई उन गंभीर घटनाओं से है, जो या तो मानव निर्मित कारणों से घटित होती हैं या फिर प्राकृतिक कारणों से घटित होती हैं और जिन घटनाओं से बहुत बड़ी मात्रा में मानव जीवन को नुकसान पहुंचता है, मानव पीड़ित होता है और करोड़ों-अरबों की संपत्ति का नुकसान होता है, साथ ही पर्यावरण को नुकसान पहुंचता है और जिन्हें प्रभावित समुदाय द्वारा तत्काल प्रभाव से नहीं रोका जा सकता है (1)।

## आपदाओं के प्रकार

मुख्यतः दो प्रमुख प्रकार हैं 1) प्राकृतिक आपदा- प्राकृतिक आपदाएं प्राकृतिक कारणों से होने वाली आपदाएं हैं जो बाढ़, तूफान, भूकंप और ज्वालामुखी विस्फोट सहित मनुष्यों के नियंत्रण से परे हैं जिनका मानव जीवन पर तत्काल प्रभाव पड़ता है। 2) मानव निर्मित आपदा- मानव निर्मित आपदाओं को जटिल आपात स्थितियों के रूप में भी जाना जाता है, जो प्रमुख दुर्घटनाओं के कारण होती हैं जैसे कि आग, अधिकार का हनन, लूटपाट और हमले, संघर्ष की स्थिति और युद्ध सहित।

## आपदाओं से नुकसान

आपदाएं चाहे प्राकृतिक हों या फिर मानव निर्मित हों, यह किसी भी देश की उन्नति के लिए बाधक होती हैं, और उस राष्ट्र को कई साल पीछे धकेल देती हैं। इसके साथ ही इन आपदाओं में न जाने कितने लोगों की जान चली जाती है, और करोड़ों रुपए की संपत्ति नष्ट हो जाती है।

## सकारात्मक संचार

ज्ञान के विकास, मनुष्य की उत्कृष्टता, सभ्यता के विकास, मानव को सभ्य बनाने के लिए किया गया संचार सकारात्मक संचार है। मनुष्य के परिष्कार, समाज निर्माण, समाज उत्थान, पुर्नजागरण, मूल्यों की स्थापना, ज्ञान के विकास, विज्ञान के विकास, मिशन के लिए किया गया संचार सकारात्मक संचार है। सृजन के लिए किया गया संचार सकारात्मक संचार है, प्रगति के लिए किया गया संचार सकारात्मक संचार है, विकास के लिए किया गया संचार सकारात्मक संचार है। जो संचार विध्वंश को नहीं सृजन को जन्म देता है, जो संचार पतन, पराभाव को नहीं प्रगति, उत्कर्ष के पथ पर आगे बढ़ता है, जो संचार विनाश का नहीं विकास का मार्ग प्रशस्त करता है, वह सकारात्मक संचार है।

इस संचार में मूल्यों की स्थापना के लिए संवाद की प्रक्रिया है, मानवीय मूल्य, समाजिक मूल्य, नैतिक मूल्यों की स्थापना के लिए संवाद होता है। यह संचार हमें अनीति, अनाचार, भ्रष्टाचार से दूर कर सदाचार, सच्चाई और सत्कर्म की ओर ले जाता है। साथ ही यह ऐसी संचार प्रणाली है जिसे हर व्यक्ति अपना सकता है, जो पूरी मानव जाति के लिए लागू किया जा सकता है। व्यक्ति एवं समाज को उत्कृष्ट बनाने की प्रक्रिया सकारात्मक संचार है। सकारात्मक विचारों का व्यक्तित्व प्रत्येक मनुष्य को अपनी तरफ आकर्षित करता है। सकारात्मक होना न सिर्फ व्यक्तित्व का आकर्षण है वरन् वह शील गुण भी है जिसके माध्यम से कोई भी मनुष्य अपने आस-पास सकारात्मक माहौल को सृजित कर सकता है। अगर साहित्यिक शब्दों में कहा जाए तो सकारात्मक संचार सृजन, प्रगति, विकास, निर्भयता, भय मुक्त, साहस इत्यादि गुणों के प्रसारण के साथ-साथ संस्कारों का परिष्कार, प्रकृति से प्रेम, समस्या नहीं अपितु समाधान को जन-जन के मन-मन तक उतरकर समाज को परिमार्जित करने की प्रक्रिया है।



सकारात्मक संचार के दो पक्ष हैं

1. सकारात्मक समाजिक परिवर्तन
  2. परम्परागत समपोषण सहित नैतिक मूल्यों का समाजिकरण
- समाजिक परिवर्तन चाहे जैसा भी हो उसका स्वरूप सकारात्मक ही होता है। समाजिक परिवर्तन का उद्देश्य समुदाय में व्याप्त अशिक्षा, असमानता, गरीबी आदि को खत्म करना होता है। सकारात्मक संचार द्वारा समाज को बदलाव के लिए प्रेरित करने के साथ-साथ विकास की गति देते हुए समाजिक स्तर पर सकारात्मक समरसता सहित सार्थक महौल बनाना होता है, साथ ही वर्षों से चली आ रही समाजिक परम्पराओं का सम्मान करते हुए एवं उसका पोषण करते हुए समुदाय के समस्त समूहों को एकता के सूत्र में पिरोते हुए उन्हें सार्थक समाजिकरण के मार्ग पर उत्प्रेरित करना भी सकारात्मक संचार का एक परम उद्देश्य होता है। समाजशास्त्र की दृष्टि से यह किसी भी राष्ट्र के सभ्यता एवं संस्कृति के पथ को प्रशस्त करने का प्रयत्न कहा जा सकता है (2)।

### सकारात्मक पत्रकारिता

“खींचो ना कमनों को न तलवार निकालो, जब तोप मुकाबिल हो तो अखबार निकालो”। अकबर इलाहाबादी का यह कथन यही दर्शाता है कि पत्रकारिता की ताकत, किसी तोप से कम नहीं। पत्रकारिता की इसी ताकत ने संसार भर के देशों के स्वतंत्रता आंदोलन में महत्वपूर्ण भूमिका निभाई, जनमानस में राष्ट्रीय चेतना जगाई और उन्होंने आजादी पाई।

यही सकारात्मक पत्रकारिता है, जो वर्तमान समस्याओं का समाधान सुझाए। व्यक्ति निर्माण, परिवार निर्माण एवं समाज निर्माण जिसका आधार हो। ऐसी पत्रकारिता जो प्रेरणा प्रद जीवन को दिशा देने वाली हो, जिसमें सेवा एवं मिशन का भाव हो। जिसका लक्ष्य मनुष्य के नैतिक मूल्यों, मानवीय मूल्यों, समाजिक-अध्यात्मिक मूल्यों को स्थापित करना हो।

आज जब पत्रकारिता का एक बड़ा हिस्सा नकारात्मकता और सनसनी फैलाने का पर्याय बनता जा रहा है, ऐसे में सकारात्मक पत्रकारिता समय की मांग है। संपादकों को संबोधित करते हुए एक बार भारत के भूतपूर्व राष्ट्रपति स्व. डॉ. एपीजे अब्दुल कलाम ने कहा था मीडिया में खबरें ऐसी नहीं हो जिसे पढ़कर लोगों में निराशा इस

कदर घर कर जाए की जीने का मन ही न करे, बल्कि खबरें ऐसी हों जो लोगों में आशा एवं उत्साह जीवन का संचार कर सकें। सकारात्मक पत्रकारिता का महत्व रेखांकित करते हुए 24 अप्रैल 2016 को भारतीय प्रधानमंत्री श्री नरेन्द्र मोदी जी मन की बात में कहते हैं, “पॉजिटिव खबरें ही देश में सकारात्मकता का मौहल बना सकती हैं। बड़े से बड़ा व्यक्ति, उत्तम से उत्तम बात, अच्छे से अच्छे शब्दों में बढ़िया से बढ़िया तरीके से बताए, तो भी उसका उतना प्रभाव नहीं पड़ता, जितना किसी अच्छी खबर का पड़ता है। अच्छी खबरें प्रेरणा का सबसे बड़ा कारण बनती हैं।” इस प्रकार प्रधानमंत्री जी ने सकारात्मक पत्रकारिता की दिशा में प्रयासरत मीडिया की सराहना की तथा इस दिशा में और सार्थक कदम उठाने की अपील की।

भारतीय पुस्तकों यथा - पत्रकारिता के विविध आयाम, वेद प्रताप वैदिक भाग-1 वर्ष 2002, सांस्कृतिक पत्रकारिता- डॉ. टीडीएस आलोक वर्ष 2003, मीडिया और संस्कृति - रूप चन्द गौतम वर्ष 2008, पत्रकारिता की लक्ष्मणरेखा- आलोक मेहता वर्ष 2008 में सकारात्मक पत्रकारिता के कुछ संकेत मिलते हैं। पत्रकारिता जगत की जागृत दिव्य आत्माओं ने पत्रकारिता के नकारात्मक स्वरूप से लोहा लेने की जोरदार पहल की। सकारात्मक पत्रकारिता की दिशा में प्रिन्ट, इलेक्ट्रॉनिक एवं न्यू मीडिया तीनों में ही कुछ न कुछ प्रयास निरंतर जारी है (3) (4)।

### कोरोना संकट काल में सकारात्मक पत्रकारिता द्वारा सकारात्मक संचार के उदाहरण-

स्वास्थ्य एवं स्वच्छता की ओर बढ़ते कदम

भारत का वर्षों पुराना सपना “स्वच्छ भारत हो अपना” साकार होता दिखाई दे रहा है, सभी मुहल्ले, गांव, शहर स्वच्छ नजर आ रहे हैं, स्वच्छता मनुष्य की प्राथमिकता बन गई है। सभी अपने-अपने घर एवं आसपास की सफाई का विशेष ध्यान रखते हैं। व्यक्ति में जगह-जगह गंदगी फैलाने की प्रवृत्ति अब दूर होती नजर आ रही है। आज चारों ओर सिर्फ एक ही चर्चा है की कोरोना वायरस से उसी का जीवन बचा रहेगा जिसमें रोग-प्रतिरोधक क्षमता (इम्यून क्षमता) जितना बेहतर होगा। न किसी की डिग्री काम आ रही है, न योग्यता, न धन-दौलत, न ही गाड़ी और दूकान। सिर्फ बेहतर स्वास्थ्य ही जीवन की परिभाषा बन गई है। प्रत्येक व्यक्ति अपने को स्वस्थ रखने के लिए प्रयासरत है।



आज मनुष्य अनुशासित जीवन अपना रहा है, क्योंकि उसे पता है कि थोड़ी भी लापरवाही जीवन का अंत कर सकती है। एक सर्वेक्षण द्वारा यह देखा गया कि भारत में 86.2 प्रतिशत लोग अपनी स्वच्छता की ओर जागरूक हो गए हैं साथ ही 71.5 प्रतिशत लोग साफ-सफाई का पूरा ख्याल रख रहे हैं (5)।

#### यज्ञ, योग-आयुर्वेद बन रहा जीवन का अभिन्न अंग

वर्तमान परिस्थितियों में यज्ञ, योग एवं आयुर्वेद का महत्व हर कोई समझ रहा है। रोग-प्रतिरोधक क्षमता बढ़ाने के ये सबसे कारगर उपाय हैं। लोग इसे समझ ही नहीं रहे बल्कि जीवन में उतार भी रहें हैं। आज सोशल मीडिया योग-आयुर्वेद के प्रचार का नया माध्यम बन गई हैं। यज्ञ-हवन से हमारे आस-पास का वातावरण शुद्ध एवं “सेनेटाइज” हो जाता है, इसके अलावा यज्ञ शारीरिक एवं मानसिक स्वास्थ्य भी प्रदान करता है। भारतीय संस्कृति की इस सबसे प्रमाणिक पद्धति का उपयोग आजकल पुनः घर-घर में होने लगा है। योग हमें कई तरह से स्वस्थ रखने की कोशिश करता है। अभी कोरोना के भय से कई लोगों ने योग करना भी शुरू कर दिया है। लोग योग को महत्व देते जा रहे हैं जिससे कि वह स्वस्थ रहे और उनकी रोग प्रतिरोधक क्षमता भी बढ़े जिससे कोरोना होने की कम संभावना रहे। आयुर्वेद का प्रचार कुछ इस तरह से है कि लोग अब खासी-जुकाम, बुखार या अन्य कोई भी बीमारी से बचने के लिए घरेलु उपाए अपनाते हैं जैसे तुलसी, शहद, अदरक, हल्दी, आदि का उपयोग करते हुए नजर आ रहे हैं।

#### प्रकृति को मिला नया वरदान

लॉकडाउन का सबसे अधिक लाभ यदि किसी को हुआ है तो वह है प्रकृति। प्रकृति अपने अद्भूत सुन्दरता के रंग में रंगी नजर आ रही है। आसमान में तारे बिल्कुल स्पष्ट दिखाई देने लगे हैं। पक्षियों - चिड़ियों की चहचहाहट साफ सुनाई देती है। पूरे देश के प्रदूषण में कमी आने से वायु एवं जल की गुणवत्ता में सुधार हुआ है। दिल्ली जैसे गैस चैम्बर माने जाने वाले शहर जो विश्व के सबसे प्रदूषित शहरों में एक है, वहां आजकल दिल्लीवासी विशुद्ध आबोहवा में श्वास ले रहे हैं। केन्द्रीय प्रदूषण नियंत्रण बोर्ड के मुताबिक नाइट्रोजन डाइऑक्साइड और पी.एम 2.5 में 71 प्रतिशत की गिरावट आई है।

ओजोन परत में सुधार- लॉकडाउन ने धरती के रक्षाकवच कहे जाने वाले ओजोन परत में सकारात्मक बदलाव ला दिया है। दरअसल

ओजोन परत को सबसे ज्यादा नुकसान अंटार्कटिका के ऊपर हो रहा था वैज्ञानिकों ने पाया है कि इस परत में अब उल्लेखनीय सुधार आ रहा है। ब्रिटेन की प्रमुख वैज्ञानिक मैगजीन नेचर में प्रकाशित ताजा शोध के मुताबिक जो केमिकल ओजोन परत के नुकसान के लिए जिम्मेदार हैं, उनके उत्सर्जन में कमी होने के कारण यह सुधार हो रहा है।

30-50 फीसदी कम हुआ कंपन- कोरोना काल के बीच ज्यादातर देशों में या तो लॉकडाउन है या फिर लोगों को घरों से बाहर नहीं निकलने के आदेश हैं। ऐसे में करीब चार अरब की आबादी वाली आधी दुनिया घरों में बंद है। इस लॉकडाउन ने परिवहन से लेकर उद्योग धंधों की रफ्तार पर भी ब्रेक लगा दिया है। खास बात यह है कि इन सबकी वजह से धरती का कंपन 30 फीसदी कम हुआ है। जानकारों की मानें तो आगे भी लॉकडाउन बढ़ने से ये कंपन 50 फीसदी तक कम होने की उम्मीद है। तमाम तरह की मानवीय गतिविधियों के चलते धरती कंपकंपाती रहती थी, अब इस कंपन में कमी के बाद भूकंप की वास्तविक स्थिति का पता लगाने में भी मदद मिल रही है (6)।

#### प्रदूषण के स्तर में आयी गिरावट

लॉकडाउन में यह देखने को मिला है कि किस तरह से हमारे देश में प्रदूषण नियंत्रण हुआ है। फैक्ट्रियां, ट्रांसपोर्ट या उत्पादन इकाई के बंद होने के बाद यह देखा गया है कि प्रकृति, जानवरों, पशु-पक्षियों को काफी राहत मिली है और बायोडिग्रेडेबल अपशिष्ट जो कि लोगों के घरों से निकल रहा है वह काफी लाभदायक हो रहा है प्रकृति के लिए और गैर-बायोडिग्रेडेबल अपशिष्ट जिससे नदी, समुद्रों, तालाबों और जानवरों और अन्य सभी चीजों को नुकसान पहुंचता था वह सब अब बंद हो गया है और स्वच्छ हो गए हैं। लॉकडाउन की वजह से धरती पर प्रदूषण में भी जबरदस्त कमी देखने को मिली है। गाड़ियों से निकलने वाले धुएं बंद हैं, फैक्ट्रियों से निकलने वाला धुआं बंद, वर्क फ्रॉम होम होने के बाद ऑफिस में लगे भारी संख्या में एसी बंद हैं, जिसका साफ असर हवा और हमारे पर्यावरण पर दिख रहा है। अधिकांश जगहों पर हवा पूरी तरह से साफ हो गई है। सेंटर फॉर साइंस एंड एनवायरमेंट के प्रदूषण को लेकर रोजाना विश्लेषण में सामने आया कि लॉकडाउन की वजह से अब तक दिल्ली, मुंबई, कोलकाता और बैंगलूरु की हवा में प्रदूषण का स्तर कुछ कम हुआ है।



जानकारी के लिए बता दें सिर्फ भारत में हर वर्ष प्रदूषण की वजह से 12 लाख लोग दम तोड़ते हैं (7)।

#### मां गंगा एवं अन्य नदियों में बह रही निर्मल धारा

मां गंगा की निर्मल धारा एवं स्वच्छ गंगा देखने का सपना सभी भारतवासी संजोय हुए थे। पिछले 34 सालों में इसके लिए भारत सरकार की तरफ से लगभग 13 हजार करोड़ रुपये खर्च भी किए जा चुके हैं। लेकिन कुछ नहीं हुआ। परन्तु अब उत्तराखंड प्रदूषण बोर्ड द्वारा लॉकडाउन के दौरान गंगा नदी के पानी की शुद्धता की जांच की गई जिसमें पाया गया कि हरिद्वार एवं ऋषिकेश का पानी जो बी श्रेणी में आता था। अब पीने लायक यानी ए श्रेणी में आ गया है। उत्तराखंड बनने के बाद पहली बार गंगा इतनी शुद्ध है। सेन्ट्रल प्रदूषण नियंत्रण बोर्ड द्वारा भी कहा गया की गंगा के 36 मोनेटिंग बिन्दु में 27 की स्थिति अत्यंत बेहतर है।

ग्रेटर फरीदाबाद से होते हुए मथुरा आगरा की तरफ जाने वाली यमुना नदी पहले की अपेक्षा अब करीब 50 से 60 प्रतिशत तक साफ हो गई है लॉकडाउन से पहले यमुना नदी में दिल्ली का कूड़ा कचरा केमिकल का पानी और तमाम पॉलिथीन तैरती हुई नजर आती थी मगर लॉक डाउन के बाद सब कुछ बंद होने के चलते, यमुना नदी का पानी स्वच्छ बहता हुआ दिख रहा है। अन्य नदियों का जल भी बहुत तेजी से शुद्ध हो रहा है। लॉकडाउन ने नदियों में बढ़ रहे प्रदूषण पर भी काफी हद तक रोक लगा दी है। जानकारों की मानें तो लॉकडाउन के इसी तरह आगे बढ़ने से नदियों का जल भी काफी साफ हो गया है। नदी के तटों पर मानव गतिविधियां भी बंद होने के कारण गंगा, यमुना नदी का जल स्वच्छ हो रहा है।

#### भारतीय सनातन संस्कृति-संस्कार की तरफ लौटते कदम

भारतीय संस्कृति में 'परिवार' समाज की धूरी है। लॉकडाउन के दौरान ज्यादातर लोग अपने घरवालों के साथ हैं, ऐसे में अपने परिजनो के साथ सभी अपनी भावनाएं साझा कर रहे हैं, आपसी मन-मुटाव दूर हो संबंधों की गहराई बढ़ रही है। बड़े-बजुर्गों का विशेष ध्यान रखा जा रहा है। रिश्तों और दोस्ती पर लोगों का भरोसा बढ़ते हुए दिख रहा है। लोग एक दूसरे को समझने लगे हैं। जीवन की भागदौड़ में कई बार बेहद आम लोग भी अपने परिवार को पर्याप्त समय नहीं दे पाते हैं। यह लॉकडाउन परिवार के साथ वक्त बिताने का भी मौका बन गया है।

इसके अलावा, इस वक्त को पुराने दोस्तों और छूट चुके रिश्तेदारों को याद करने और उनसे फोन या मैसेजिंग के जरिये संपर्क करने के लिए भी इस्तेमाल किया जा रहा है।

रामायण, महाभारत जैसे भारतीय संस्कृति के मूल शास्त्रों को नई पीढ़ी टीवी सीरियल के माध्यम से देख-समझ रही है। इससे लोगों में संस्कृति की समझ विकसित हो रही है। घरों में आस्तिकता का विस्तार हो रहा है। कई लोग खाली समय का सदुपयोग कर वेद, उपनिषद्, पुराण जैसे भारतीय शास्त्रों का स्वाध्याय एवं सत्संग भी कर रहे हैं। कोरोना संकट से पहले कई लोग पश्चिम को श्रेष्ठ मानकर उनका अन्धानुकरण करते थे। परन्तु वर्तमान में यूरोप एवं अमेरिका जैसा देश भारतीय संस्कृति को अपनाकर न सिर्फ अपने संकटकाल को दूर करने के प्रयास में लगा है बल्कि दूसरों को भी भारतीय संस्कृति अपनाने की प्रेरणा दे रहा है। पूरी दुनिया अभिवादन के लिए हाथ जोड़ कर 'नमस्ते' करने लगी है। हाथ-पैर धोकर घर में घुसना हो या मृत शरीर को जलाने की प्रक्रिया अब दूसरे देशों में भी इन संस्कारों को अपनाया जा रहा है। अब शाकाहार भोजन की शरण में पूरी दुनिया आ गई है (8)।

#### दौर वास्तविक नायकों का

लोग फिल्मी सितारों, खिलाड़ियों, बड़े-बड़े उद्योगपतियों, व्यापारियों, नेताओं को ही सच्चा नायक मानते रहे। पर जनता को अब समझ आ गई है कि कोरोना से लड़ने वाले हमारे योद्धा डॉक्टर-नर्स, पुलिस, सफाईकर्मी, मीडियाकर्मी, मेडिकल-राशन-सब्जी-फल दूकानदार जैसे लोग ही सच्चे नायक हैं। जो दिन-रात हमारे जीवन एवं सुरक्षा के लिए अपना खून-पसीना एक कर रहे हैं। किसानों के प्रति अन्नदाता के रूप में हमारा सम्मान बढ़ा है, जीवन रक्षक अन्न हमें इनकी ही कृपा से मिल रहा है।

हमारा अन्नदाता किसान-हमारे देश का अन्नदाता कड़ी धूप में भी अपने खेतों में काम कर रहा है चाहे सर्दी गर्मी या बरसात हो हमारा अन्नदाता किसान किसी भी परिस्थितियों में अपना काम नहीं छोड़ता अगर वह भी हमारी तरह अपने घर पर बंद हो जाए तो पूरे देश को खाने के लाले पड़ जाएंगे हमारा अन्नदाता सदा ही अपने देश के लिए तत्पर रहता है, रहता था और रहता ही रहेगा। इतिहास गवाह है कि हमारे अन्नदाता ने हमारे देश का सदा से ही भला चाहा है। चाहे वह





भारत पाक का युद्ध ही क्यों ना हो 1965 में जब भारत और पाकिस्तान में युद्ध हो रहा था तो उस समय भारत के दूसरे प्रधानमंत्री के रूप में लाल बहादुर शास्त्री जी थे उन्होंने नारा दिया था “जय जवान जय किसान” उन्होंने न सिर्फ जवान को ही जय कहा बल्कि इस देश के अन्नदाता किसान को भी जय कहा उन्होंने कहा जिस तरह बॉर्डर पर हमारे सैनिक हमारे लिए दिन-रात लड़ रहे हैं उसी तरह किसान हमारे खेत खलिहान में किसी भी मौसम में किसी भी परिस्थितियों में हमारे लिए अन्न पैदा कर रहे हैं। 1965 में हमारे देश के किसानों ने जो योगदान दिया है उसे हम कभी भुला नहीं सकते। ऐसे कितनी परिस्थितियों में हमारे अन्नदाता किसान ने हमारा साथ दिया है। आज पैसों का अनाजों के सामने कोई महत्व नहीं हमारे किसान हमारे अन्नदाता ने कभी भी सरकार से किसी तरह का कोई मांग नहीं किया है, हमारे देश के अन्नदाता किसान हैं तभी हमारा जीवन है चाहें हम कितने ही पैसे कमा ले लेकिन हम भूख लगने पर अनाज को ही खाएंगे। किसानों ने सदा ही इस देश का भला चाहा है।

#### सामाजिक संवेदना का प्रस्फूटन

आपत्तिकाल में कई हाथ मदद के लिए उठ रहे हैं, लोगों में समाज के प्रति संवेदना बढ़ रही है, कोई गरीब-मजदूरों को भोजन करा रहा है, तो कोई दान देकर जिम्मेदार नागरिक की भूमिका अदा कर रहा है। कई गैर सरकारी एवं धार्मिक संगठन लोगों एवं सरकार की मदद के लिए हर संभव प्रयास करती नजर आ रही है। बड़े-बड़े उद्योगपति, बॉलीवुड स्टार, खिलाड़ी से लेकर आम जनता तक भारत सरकार के पीएम केयर फंड एवं अन्य तरीकों से अपने क्षमता के अनुसार पैसे दान दे रहे हैं। कोरोना काल में किसी विशेष वर्ग, सम्प्रदाय या जाति को न कोई विशेष सुविधा दिया जा रहा है न ही आरक्षण। सभी लोगों के साथ एक जैसा व्यवहार किया जा रहा है। यही सच्चा समाजवाद है।

लॉकडाउन के कारण कई पर्यटक, किसान, मजदूर और अन्य कई लोग अपने-अपने घर नहीं पहुंच पाए जिसके कारण उन्हें और उनके परिवार वालों को परेशानियों का सामना करना पड़ रहा है। लोग सहानुभूति दिखाते हुए उनके लिए मदद कर रहे हैं। जो भी व्यक्ति जहां भी है जो घर नहीं पहुंच पाए है उनके लिए वह लोग खाने-पीने का सामान तैयार करके उन्हें पहुंचा रहे हैं और जो दिहाड़ी मजदूरों को

रोजाना न मिलने पर पैसे और खाने की कमी हो रही है उन तक भी यह सब और जरूरत की चीजे पहुंचाए जा रहे हैं।

#### समानता का मिला अवसर

कोरोना काल में किसी विशेष वर्ग, सम्प्रदाय या जाति को न कोई विशेष सुविधा दिया जा रहा है न ही आरक्षण। सभी लोगों के साथ एक जैसा व्यवहार किया जा रहा है। यही सच्चा समाजवाद है। वायरस ने भी अमीर-गरीब, जाति-पाती, धर्म-संप्रदाय आदि में बिना मतभेद किए सभी के साथ एक जैसा व्यवहार किया। जिसने भी लापरवाही बरती उसे वायरस ने अपने प्रभाव में ले लिया। इन दिनों लूटपात, चोरी, भ्रष्टाचार, हत्या, शोषण जैसे सामाजिक बुराईयों में कमी आई है। लॉकडाउन खुलने के बाद भी यदि ऐसी स्थिति बनी रहे तो धरती पर स्वर्ग के अवतरण में देर नहीं लगेगी (9)।

#### सकारात्मक सृजन का पुनःजागरण

वर्तमान में कई लोग अतिरिक्त समय का लाभ अपने अंदर छूपे सृजनात्मकता को उभारने में कर रहे हैं। कोई पेंटिंग, तो कोई खाना बनाने, कोई संगीत के सुरों का अभ्यास कर रहा है तो कोई ऑनलाईन मोटिवेशन कक्षा चला रहा। लॉकडाउन से पहले कई लोग बिना मतलब घरों से बाहर निकलते, अनावश्यक शॉपिंग करते, भूख न लगने पर भी फास्ट-फूड आदि खाते रहते थे। परन्तु अब केवल अपने जरूरत के सामान पर ही गुजारा किया जा रहा है। इससे न सिर्फ फिजूल खर्च रूका है बल्कि सादगीपूर्ण जीवन को भी बढ़ावा मिल रहा है। देश भर में जगह-जगह शराब, गुटका, सिगरेट, पान-मसाला जैसे नशीले पदार्थों पर रोक लगता जा रहा है। लोगों को अब पता चल गया है कि इन सबके बगैर भी जीवन जिया जा सकता है। इन दिनों लूटपाट, चोरी, भ्रष्टाचार, हत्या, शोषण जैसे सामाजिक बुराईयों में कमी आई है। लॉकडाउन खुलने के बाद भी यदि ऐसी स्थिति बनी रहे तो धरती पर स्वर्ग के अवतरण में देर नहीं लगेगी।

नशा-उन्मूलन का दौर- देश भर में जगह-जगह शराब, गुटका, सिगरेट, पान-मसाला जैसे नशीले पदार्थों पर रोक लगता जा रहा है। लोगों को अब पता चल गया है कि इन सबके बगैर भी जीवन जीया जा सकता है। गरीबों के लिए यह सबसे फायदेमंद है क्योंकि इससे इनका पैसा भी बच रहा है और अमीर वर्ग नशा से अपने स्वास्थ्य पर पड़ने वाले बुरे प्रभाव पर जागरूक होकर नशा छोड़ रहे हैं। लॉकडाउन के बाद से यह



देखा गया है कि नशा करने वालों की संख्या भी गिर चुकी है। नशा उत्पादन करने वाले सारे कारखाने और परिवहन बंध होने के कारण नशा करने वालों की संख्या कम हो गई। जिससे नशा सेवन करने वाले भी अब स्वस्थ होते जा रहे हैं। जहां धूम्रपान के सेवन की वजह से लोगों पर जान का खतरा ज्यादा होता था वहीं कोरोना के वजह से इसके सेवन में बहुत गिरावट आया। सरकार ने इन सब पर रोक लगा दिया है जिससे बीमारियों की संख्या में गिरावट आयी है।

#### आहार-विहार में बदलाव-शाकाहार

आज पूरा विश्व जानता है कि कोरोना जैसा वायरस पशु-पक्षी, जीव-जन्तुओं के माध्यम से ही मानव शरीर में प्रवेश करता है। एवं इसका सबसे पहले शिकार मांसाहार भोजन करने वाले लोग ही होते हैं। भारतीय संस्कृति में शाकाहार भोजन करने का ही निर्देश है, क्योंकि हमारी संस्कृति इन सब कारणों से अनभिज्ञ कभी नहीं रही। आज पूरी दुनिया भारतीय संस्कृति के इस ज्ञान को मानकर मांसाहार भोजन से अपनी दूरी बना रही है।

कोरोना के भय से लोगों के खाने-पीने में भी कई बदलाव देखा जा रहा है। लोग घरों में है इसलिए वह मांसाहारी भोजन ग्रहण नहीं कर पा रहे हैं जिससे लोगों को अन्य बीमारियां भी नहीं हो रही है। लोग घर का बना सादा भोजन ही खा रहे हैं जिससे की वह स्वस्थ होते जा रहे हैं। घरों में रह कर अपने भोजन को भी सही वक्त पर ग्रहण कर रहे हैं। जहां आज की पीढ़ी पिज्जा और बर्गर के आदतों से घेरें हुए है वहीं आज वह सब सब्जी और फलों का सेवन अधिक कर रहे हैं (10)।

लॉकडाउन से पहले लोग बिना मतलब घरों से बाहर निकलते थे, अनावश्यक शॉपिंग करते थे, भूख न लगने पर भी फास्ट-फूड आदि खाते रहते थे। परन्तु अब केवल अपने जरूरत के समान पर ही गुजारा कर रहे हैं। इससे फिजूल खर्च रूका है एवं सादगीपूर्ण जीवन को अपनाया जा रहा है। हम सभी को यह चीज समझना चाहिए कि जितना हम अपने जीवन में सादगी से रहेंगे उतना ही हमारे लिए अच्छा होगा। अगर हम सादा भोजन का सेवन करेंगे तो हम बीमार कम पड़ेंगे और हमें डॉक्टर की जरूरत भी नहीं पड़ेगी और कोरोना से भी दूर रहेंगे। हमें अपने सोच को सकारात्मक रखना अनिवार्य है। हमारे रहन-सहन को भी जितनी सादगी से रखेंगे हमें उतना ही लाभ होगा।

#### भारतीय संस्कार और संस्कृति को अपना रही है पूरी दुनिया:-

भारतीय संस्कृति में व्रत रखने का महत्व भी समझाया गया है। वैज्ञानिक दृष्टि से व्रत के दौरान हमारा शरीर स्वयं का शोधन करता है। जिससे शरीर की कई बीमारियां स्वतः ठीक हो जाती हैं। आज हाथ मिलाने की जगह हाथ जोड़कर प्रणाम करने, शाकाहार अपनाने, मृत व्यक्तियों का दाह संस्कार करने जैसी भारतीय सनातन परंपरा की तारीफ अमेरिका, स्पेन, इटली, जापान, कोरिया और जर्मनी के लोग भी कर रहे हैं और इसे अपनाने की वकालत भी कर रहे हैं। वहीं अगर हम रेडियो और टेलिविजन की बात करें तो भारत में रेडियो सुनने वाले की संख्या 22% से बढ़कर 86% हो गई है। टेलिविजन पर भी रामायण और महाभारत को दूसरी बार प्रसारित किया गया। 7.7 करोड़ से ज्यादा लोगों ने इसे देखा। पौराणिक कार्यक्रमों को जैसे रामायण और महाभारत को दर्शकों का साथ मिला।

रामायण, महाभारत जैसे भारतीय संस्कृति के मूल शास्त्रों को नई पीढ़ी टीवी सीरियल के माध्यम से देख समझ रही हैं। इससे लोगों में संस्कृति की समझ विकसित हो रही है। घरों में आस्तिकता का विस्तार हो रहा है। इसका प्रमाण यह है कि वर्तमान समय में टीवी पर देखे जाने वाला सबसे लोकप्रिय शो यहीं है। कई लोग खाली समय का सदुपयोग कर वेद, उपनिषद्, पुराण जैसे भारतीय शास्त्रों का स्वाध्याय एवं सत्संग भी कर रहे हैं।

#### निष्कर्ष

कोरोनासंकट काल में जिस प्रकार संचार एवं पत्रकारिता ने अपने कर्तव्य को समझा और जिस कौशल पूर्ण तरीके से अपनी भूमिका निभाई वो वाकई काबिले तारीफ है। इस संकट काल में जहां एक ओर संचार माध्यमों द्वारा कोरोना यानी कोविड-19 से हो रही हानियों, मुख्यतः बीमारी से होने वाली जन हानी के आंकड़े बता रहे हैं पर साथ ही इससे बचने के उपाय, सावधानियाँ भी बात रहे हैं। साथ ही इससे जुड़े सभी आयामों को बताया-समझाया जा रहा है जैसे- स्वस्थ कैसे रहे, योग व्यायाम के साधन, धार्मिक कार्यक्रम का आयोजन, घर रहकर क्या नया कर सकते हैं इसके वीडियो आदि प्रसारित किए जा रहे हैं। जिससे समाज में संकट को सही से समझने तथा उससे लड़ने के लिए तैयार होने के लिए शारीरिक एवं मानसिक रूप से तैयार हुए हैं।



इन उदाहरणों से स्पष्ट है कि आपदाओं के समय सकारात्मक संचार एवं पत्रकारिता लोगों को न सिर्फ मानसिक बल प्रदान करता है, बल्कि उज्ज्वल भविष्य की ओर भी ले जाता है। लोगों को भय, निराशा, आतंक के माहौल से निकालकर उनमें आत्मबल, साहस, निर्भयता, आशावाद जैसे उच्च आदर्शों का संचार करता है। इन परिस्थितियों में जो मनुष्य सकारात्मक रहकर कार्य करेगा, उसके जीवन में आमूल-चूल परिवर्तन तो होकर ही रहेगा।

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Research Article

## Addressing the effect of COVID19 pandemic on the Tourism Industry in Haridwar and Dehradun Districts of Uttarakhand, India

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**Abstract.** The World Travel and Tourism Council has said “The coronavirus COVID19 epidemic is putting up to 50 million jobs in the global travel and tourism sector at risk, with travel likely to slump by a quarter this year, Asia being the most affected continent”. The predictions being flashed by the world economic forum about the travel & tourism industry is also reflected in North India tourism industry. Hence, the study aimed to address and evaluate the effect of COVID19 on Uttarakhand tourism, especially, on the site of Haridwar and Dehradun as they are the entry to the gateway of Major *Char Dham Yatra* of Himalaya, and where all India tourists arrive since centuries. The prime focus of the study was to review and investigate the people's reaction towards the pandemic situation and how it had affected the working as well as livelihood of people associated with Tourism and hospitality in this region of Uttarakhand. The study did a online survey through self-prepared 20 questions questionnaire. The study indicates before and COVID19 pandemic affected nearly 60% respondents for their professional working and many were affected with payment schedules. The majority of the respondents (78.4%) were very much positive and had faith for the bright future besides happy to spend time with family. In addition, the study showed a strong response from participants for the need of the change in the service of the tourism industry indicating a change for its survival with the present threat possibly through finding solutions such as local tourism, spiritual collective effort and support.

**Keywords.** COVID19, Tourism, Hospitality, livelihood, business, revival



## Introduction

COVID19 pandemic has severely impacted the tourism sector globally including India. By affecting millions of people and claiming over a million lives till in first six months of the year 2020, tourism is clearly one of the worst hit sectors of economy. According to research by the UN body, more than 90% of all worldwide destinations have introduced travel restrictions. COVID19 has impacted travel and tourism like no other event had done it before in the history. In Asia, 100% of destinations have adopted restrictions related to COVID19 since January, 2020 (1).

In India, Indian Associations of Tour Operators (IATO) estimated the hotel, aviation and travel sector together may incur loss of about 85 billion due to travel restrictions. The World Travel and Tourism Council (WTTC) estimates the crisis to cost the tourism sector at least US \$22 billion, resulting in a loss of 50 million jobs. On account of COVID19, the Indian tourism and hospitality industry will face a job loss of around 38 million. According to the statistics published by Indian Chamber of Commerce (ICC), there has been seen a reduction in foreign tourists arrivals as well as in domestic tourists.

A study by S Choudhury et al. (2020) explained that every year around 9.6 million foreign tourists visit India, which make it about 26000 per day; with no available substitute in lockdown and restrictions, unfortunately, it is the tourism sector which has to face the most severe consequences. The industry which contributes 9% to the GDP of India has to bear the loss of around 1.3 trillion in 2020, not only in the term of revenue but also in the form of employment as it accounts for around 52% of employment in the country and hence the potential job loss of around 38 million, which is 40% of total workforce (2).

In the study by J Koirala et al., (2020) indicated that the outbreak of novel Corona Virus (COVID19) from Wuhan has isolated millions of population from regular activities. The spread is so much viral

that it is almost unstoppable. It is important to understand the role of Government, Business Houses and Development Partners in understanding the effectiveness in immediate preparedness and response of the situation (3). Also Y Hong (2020) mentioned that after the outbreak of COVID19 (especially in the stage of tourism recovery), the bed and breakfast (B&B) tourism industry faced big challenges in improving its health strategies. B&Bs are very important for the tourism industry in China and many other countries (4). In addition, a study indicated that around the world, almost all countries have sought to stop the spread of the COVID19 by lockdown and quarantine protocols, implemented from local to the national scale, hence impact on the tourism industry is easily understood (5).

Tourism and Hospitality are one of the most affected sectors among all, especially in the Uttarakhand state of India, whose 80% economy and employment is based on tourism. Tourism sector of Uttarakhand has got a huge blow when COVID19 pandemic entered in India. A state with a population of more than 1.17 core was brought to a sudden stand still and tourism was one such sector which came under direct influence of the immediate lockdown.

Considering the global impact of COVID19 pandemic, the study aimed to observe and reveal COVID19 pandemic impact on Uttarakhand tourism especially in Dehradun and Haridwar. The study also aimed to evaluate the need of the changes in tourism industry's service due to pandemic along with status of work environment and governmental support. The objective of this research was to find the impact of COVID19 on people associated with tourism industry in Uttarakhand through their personal lives, livelihood and future expectation.

## Methods

A questionnaire for the survey for qualitative study was self-prepared and responses of selective 111 respondents in the City of Haridwar & Dehradun districts of Uttarakhand were taken. The participants of the study were from different sectors and were



directly or indirectly associated with tourism and hospitality business i.e. resorts, hotels, restaurants, tours and travel agencies, academicians, transportation, tourism professionals and industry experts etc. The questionnaire contained 20 questions, and data was collected online through Google form.

The responses of participants were collected in the month of May 2020 in which the whole state was under lockdown. The unlock process of self-quarantine was started gradually in/after May 2020 in the state.

The questionnaire PDF is provided as supplemental figure 1. The 20 questions were divided into 4 sections 1) demographics of participants, 2)

employment and work-environment during pandemic, 3) governmental support and medical facility available during pandemic, 3) livelihood status and financial security, 4) personal impact and family life during pandemic.

*Demographic of the participants*

Figure 1 demonstrated the demographics of the participants. In this section demographic and working data is presented, including age, gender, working status, residential locations and category of organization. More than 60% respondents were of age 15-30 and Urban with nearly equal gender ratio (Figure 1A-C). Participants were from different sectors i.e. governmental, non-governmental, other sectors such as self-own, etc with employed and unemployed status (Figure 1D-E).

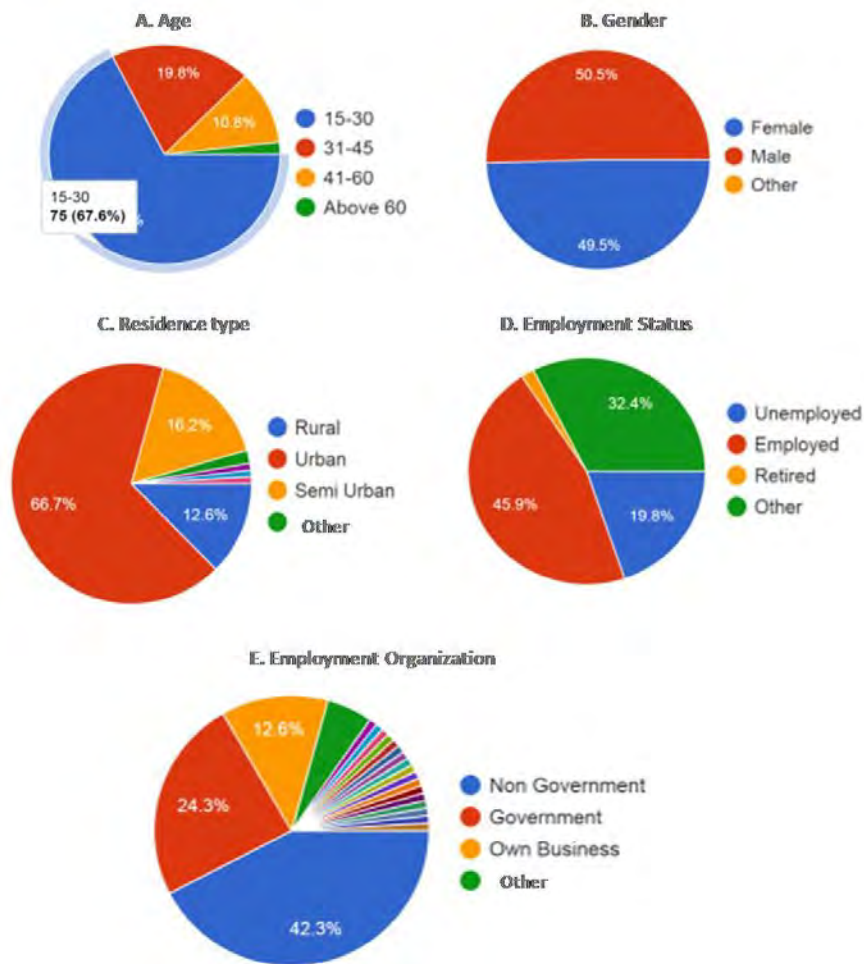


Figure 1. Demographics of the respondents



### *Impact of COVID19 on Employment and work-environment*

In this section, the respondents were asked four questions to evaluate their employment status and work-environment and results were depicted in the Figure 2 with mean and standard error on the linear scale. Majority of the respondents indicated the work is impacted in COVID19 pandemic i.e. 55.9% strongly agreed), while only 16.2% showed that their work was unaffected. During pandemic, there were mixed responses of regularities in payment by their employer i.e. 37.8% responses agreed while 30.6% strongly disapproved of it (Figure 2A).

When people were enquired about whether the management has shared the information regarding the business situation, 37.8% strongly agreed while 18.9% strongly disagreed indicating a mixed response from their management. In addition, regarding the need and importance they felt for the change in the service standards in tourism industry after corona virus, their opinion was very strong (64%) indicating the upcoming challenges in tourism industry post COVID19 pandemic (Figure 2A).

### *Government support for business and medical facility during COVID19 pandemic*

Besides business environment, the study also evaluated the government support and medical facility available during pandemic. The results indicated unawareness among people regarding the governmental support for business (mean was at linear scale 3), while regarding medical facilities being provided in COVID19 situation (mean was at linear scale 4), there were more satisfactions

indicating the active role of government in the pandemic time (Figure 2B). In addition, the local administration was extremely supportive during the difficult times of pandemic i.e. 45.9% respondents strongly agreed with the administrative services (Figure 2B).

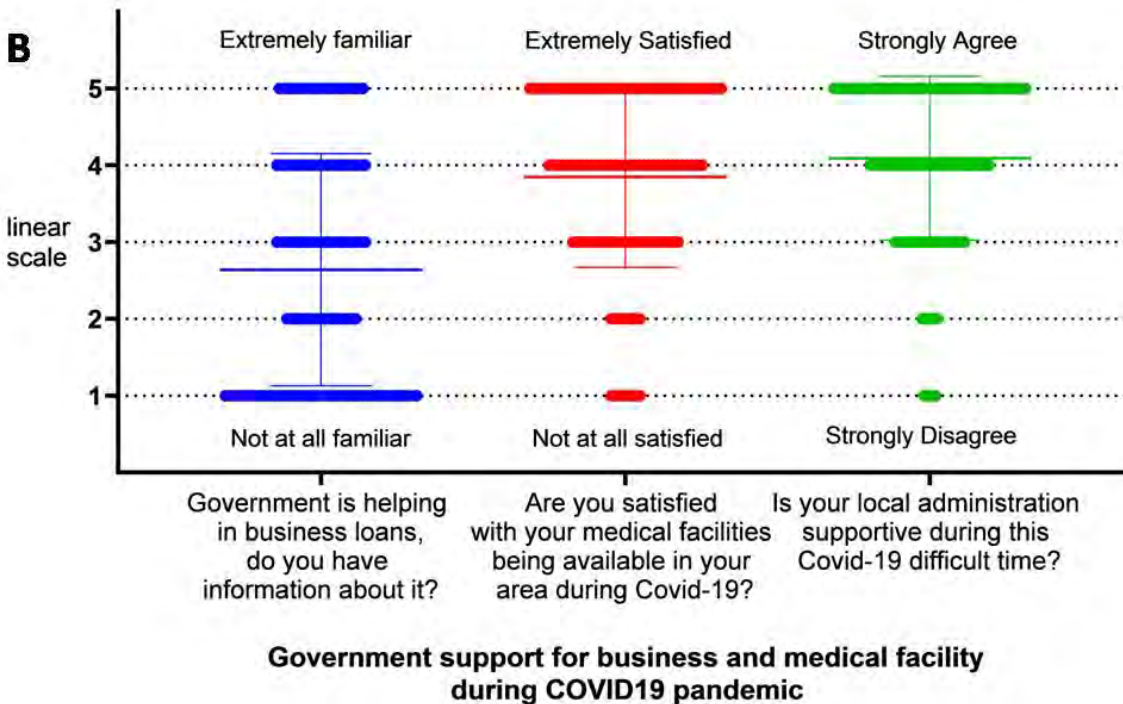
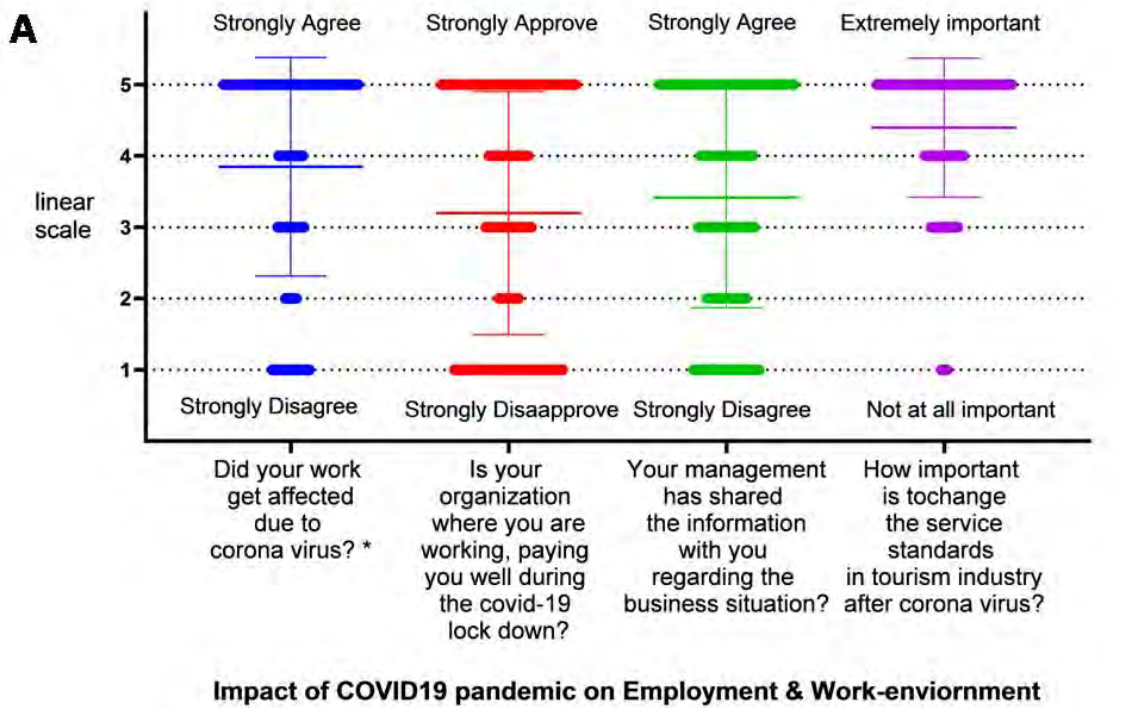
### *Impact of COVID19 on livelihood and financial security*

In the present study, the questions on livelihood and financial security for future were also evaluated. In the question regarding the security in the employment post COVID19 pandemic, the respondents were hopeful, had some plans about future employment, and hopeful of recovery of loss occurred in pandemic as scale mean was between 3 to 4. Interestingly all respondents were very hopeful and had strong faith for their bright future as mean of the linear scale was between 4 to 5 in the 5 point scale (Figure 3A).

### *Impact of COVID19 on Personal & family life*

Almost all of the respondents (67%) had never experienced such a disaster in the life before (mean scale between 1 to 2 point on 5 point scale), while many of them agreed and many did not agreed that it had caused stressed in their life (the mean linear scale were nearly in middle giving mixed results). Interestingly, on the positive side of the pandemic, majority (73.95) believed that the pandemic has given them a break and time to spend with family (mean linear scale was between '4' to '5' on the 5 point scale) (Figure 3B).

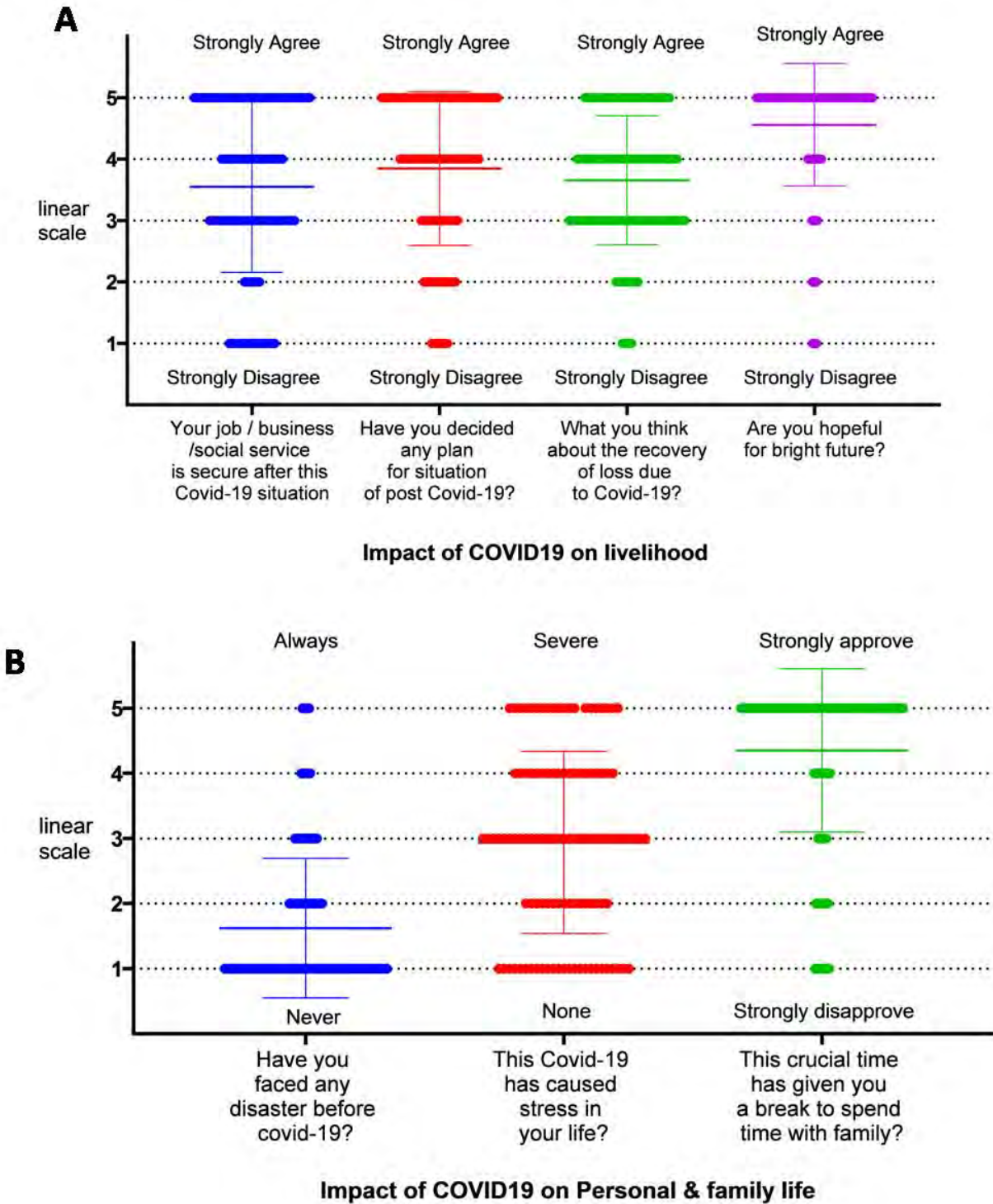




**Figure 2.** Impact of COVID19 on Employment and work-environment (A), and on the support for business and medical facility from government (B) in the COVID19 pandemic in the respondents from Uttarakhand.







**Figure 3.** Impact of COVID19 on livelihood, and financial security (A), and on personal and family life in the COVID19 pandemic in the respondents from Uttarakhand.



## Discussion

This research was based on the impact of COVID19 pandemic on the Tourism Industry in Haridwar and Dehradun Districts of Uttarakhand, India. The study was conducted in the month of May 2020. The study was divided into four parts to access the impact of COVID19 pandemic i.e. demographics of respondents (figure 1), employment status of participants (Figure 2A), Government support in business & medical facility (figure 2B), livelihood and financial security (Figure 3A), and personal & family life (Figure 3B).

The COVID19 impact on the tourism industry is the highest affected sector at present time. The study indicated the COVID19 situation whether faced by people earlier or not; the response was 67.655 people never seen or faced such situation of COVID19 earlier, indicating a novel situation arising. Apart from that COVID19 pandemic affected nearly 60% respondents for their professional working and many were affected with payment schedules. However, the result indicated that people have faith for the bright future and happy to spend time with family.

In addition, the study showed a strong response from participants (figure 2A) for the need of the change in the service of the tourism industry indicating a change for its survival with the present threat. One of the strategies for the revival of the tourism industry in India especially in COVID19 pandemic time, it seems, is that the promotion of domestic tourism. Each state can promote the most important specialties of their particular region through social media platforms till this COVID19 scenario and when the situation starts getting back to normal, later tourism can be started and gradually increased thereby contributing in balancing the industry.

Northern India has enormous possibilities of tourism as the northernmost states i.e. Uttarakhand, Himachal, Jammu, are already a hot destination. Uttarakhand as a tourist destination has lots of prospects and can prove to be a pure goldmine. It can use its rich cultural heritage and the breath-

taking natural beauty to its advantage. During the lockdown period, there were many ecological beneficial outcome has happened which can be later promoted to attract tourist after lockdown is over with more care to maintain sustainability i.e. 1) with reduced carbon footprints and human interference, which has added more to Himalayas virgin beauty, 2) environment has become so pollution free that Himalayan Peaks are visible from Saharanpur, a heavily populated area of Uttar Pradesh State, 3) in an interesting observation during lockdown, water of the revered river Ganga was found to be most cleaned in past many decades at Haridwar location, for which Governmental bodies were spending ample amount of money but could not achieved it, 4) also various varieties of Birds and animals were seen back in Rajaji national park area of Haridwar; thus indicating the need of sustainable and environmental friendly approaches in tourism industry in the upcoming time along with focus of its revival.

Besides, a collective human effort will be required for the revival of the industry as a study by Porwal (2020) mentioned that "tourism unites, and Yoga provides health, happiness and harmony". In addition concepts like Yoga-tourism in promoting healthy life style, holistic approach for happiness and global harmony (6) along with sustainable business in hospitality and tourism (7) could be of more important in reviving tourism post COVID19 era. In addition, majority of the businesses are not able to meet their day to day finances, they have exhausted their savings, and some of the businesses have taken loan to fulfill the requirements. Also some of the businesses are not able to pay the salaries to their employees and hence philosophy of spiritual tourism (8) imbining spiritual combine effort would help survive and grow together.

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<https://doi.org/10.36018/ijyr.v1i2.9>



## Role Artificial Intelligence Technologies Played Combating COVID19 Pandemic

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**Abstract.** Artificial Intelligence (AI) is one of the most useful technologies during COVID19 pandemic. In this current situation, AI played a vital role in various and different sector from an infected patient to the economy-wide. A wide range of examples are available for how AI tackled with COVID19 and is helping during the pandemic around the world. During this pandemic time, large to small companies have been developing new AI approaches such as droids, machine, software and gadgets in embracing fight against COVID19 pandemic. The present study reviews application of AI and how it has supported in this pandemic.

**Keywords.** COVID19, Pandemic, Artificial Intelligence (AI), Technologies



## Introduction

Corona Virus family causes illness which includes respiratory and gastrointestinal diseases. Respiratory illness ranges from the common cold to more severe diseases such as severe acute respiratory syndrome (SARS-CoV). COVID19 is a recently identified coronavirus strain that has been identified in humans recently. It has caused a global pandemic in the first half of the year 2020. The structure of the virus contains an envelope containing protein. The coronavirus envelopes protein, which morphologically appears like a spike (crown). The crown in Latin means Corona. Thus, the name of coronavirus strain is originated (1-2).

The newly emerged COVID19 pandemic in which so far it is known that the virus causes respiratory diseases and it may spread through large respiratory droplets and direct or indirect contact with the infected object. Also, COVID19 virus duration of incubation in a human before the appearance of any symptom is predicted from 2 to 14 days (1-2). About 8,993,659 confirm cases, 469,587 deaths and 152,325 new cases recorded till 24th June 2020 globally as per World Health Organization, while in India, 152,325 confirmed cases, 14,011 deaths, and 14,933 new cases were recorded for till the same date (3).

The pandemic has lead to the situation like great depression globally affecting social life and all economic sectors including sporting, religious activity, political activities, business, cultural events, widespread supply shortage, global supply chain, education, and so on. All efforts of the human civilization are combined to fight against the scenario including the technology sector. Artificial Intelligence (AI) has also played an important role and contributed to the fight against the COVID19. The present study aimed to present the contribution of AI sector in the fight against the pandemic.

## The emergence of new work-environment to avoid infection is a challenge for finding novel technological solutions

All health systems, modern and traditional, globally are challenged for the high demand for care of COVID19 infected people, while also maintaining the health service for regular diseases. Hospitals are over-flooded with patients. There is a continuous need for a constant supply of food, essentials, medicines, maintenance services, which also needed care of avoiding human contacts to reduce the change of COVID19 infection. The new work environment in hospitals, emergency services providing sectors and eventually in all the working sectors has been emerging with social distancing approaches, screening direct-non-direct contacts, sanitization, delivery methods, working space reorganization, etc.

The scenario certainly raised the need for an alternative solution, where one can be safe while working. All work demanded social distancing. For example, doctors are distantly sensing the temperature of patients, along with other technologies to access and treat the patient; e-commerce companies are trying new approaches in the delivery of products from host to customers; education industry also adopted online mode of teaching.

These approaches needed high-end technical revolutions to provide the feeling of new normal, indicating a high expectation from AI to play an important role in this global crisis of COVID19 pandemic. During the COVID19 span, AI has been proved a very important and trending technology, not only with CS developer and with scientists, but also with the pharmaceutical developers, agriculture-related researches, space technology, and others. It has been used at a huge level for combating with COVID19 pandemic; wide range of applications and AI technologies by multiple companies were used for different purposes, which are reviewed as following.



### Use of Artificial Intelligence by different countries government for population management during COVID19 pandemic

| Country      | Contribution of Artificial Intelligence  |
|--------------|--|
| India        | Used a lot of robot and drones for food supply, medicine delivery like Prithivi, ASTRA; used software programs and AI-enabled sensors population management; apps for communication (4).   |
| Singapore    | Used compiled data measured by mobile phone and geo-location, random home checking of people for managing population and gathering for social distancing (4)   |
| China        | Used for mass surveillance, also smart devices were used to screen temperature to identify COVID19 infection; used 'smart' helmets capable of flagging individuals with high body temperature; used facial recognition devices used for detecting wearing of masks (4) |
| Israel       | Used for alerting the people for social distancing, wearing masks and for tracking geo-locations (5).  |
| South Korea  | Used for social distancing especially at crowded places such as public transport, shopping centre through collecting information and providing to controllers (5).   |
| Taiwan       | Government provided mobile phone to infected patients and traced the geo-location for providing information to the police to track their movements, social distancing and hygiene (4).   |
| Italy        | Used a specifically developed smart-phone application to trace the travelled history of a person infected with the virus and for warning people who got contact with the patient (6).  |
| Lombardy     | Used application to find travelled places of infected patient (6)  |
| United state | In collaboration with IT companies, US Government collected aggregated and anonymous data especially on mobile phones to prevent the spread of the virus (4)   |

### Application of Artificial Intelligence by various companies during COVID19 pandemic

| Name of Company   | Role of AI and working areas   |
|-------------------|--|
| Deargen           | In February, Scientists of Deargen published a preprint paper at South Korea with the results from a deep learning-based model called MT-DTI. In this model they used chemical sequences, rather than 2D or 3D molecular structures, to predict how a molecule of interest would bind to a target protein (7). |
| Insilico Medicine | Hong Kong-based Insilico Medicine purposed paper in which, the team used an AI-based drug discovery platform to generate tens of thousands of novel molecules potentially binding  |

|                                   |   |
|-----------------------------------|---|
|                                   | a specific SARS-CoV-2 protein and block the virus's capacity to change them (8).  |
| SRI Biosciences and Iktos         | On March 4, in Paris with the collaboration with Menlo Park-based research center SRI International and AI company Iktos, discovered and developed new anti-viral therapies (7).  |
| Giant Baidu                       | In collaboration and partnership with Chinese technology giant Baidu, Oregon State University and the University of Rochester, published Linear fold prediction algorithm in February 2020 to study the same protein folding. This algorithm proved much faster than traditional algorithms in predicting the structure of a virus' secondary ribonucleic acid (RNA) and provided scientists with additional information on how viruses spread (7). |
| IBM, Amazon, Google and Microsoft | Partnered with White House for providing computing resources for COVID19 research; the members of the consortium are the White House, the Department of Energy and IBM. Other companies, including Google, Amazon and Microsoft, as well as many academic institutions were also contributing (8).  |
| DeepMind (Google)                 | A subsidiary branch of Google's parent company is Deep Mind and Alphabet, also shared its predictions of coronavirus protein structures with its AlphaFold AI system (9).   |
| BlueDot                           | BlueDot is a Canadian company that credited with the fast detection of the virus using an AI and test over 100 data sets from news, airline ticket sales, demographics, climate data and animal populations (7).  |
| Infervision                       | It is a Beijing-based start-up, this company trained its software using computed tomography (CT) scans for detecting lung problems; the software could also detect pneumonia-related with respiratory diseases such as coronavirus (7).   |
| Alibaba                           | The Chinese company Alibaba also trained an AI system for recognizing the coronaviruses with an accuracy claimed to be 96%. The system was said to have helped at least 26 Chinese hospitals and review more than 30,000 cases (8).   |
| Shenzhen company                  | Shenzhen company MicroMultiCopter deployed more than 100 drones to many Chinese cities that could patrol areas and observe crowds and traffic more efficiently (7); the biotech company Seegene used it to develop the test kit and distribute it widely (7).   |
| Jvion                             | Jvion is using machine learning algorithms to determine the social risk factors that make people more likely to contract and spread the virus or acquire an infection that requires hospitalization. Jvion's AI would help identify uninfected individuals out in the community who are at risk for a severe course of illness (7).   |
| EndoAngel Medical Technology      | A separate AI developed by researchers from Renmin Hospital of Wuhan University, Wuhan EndoAngel Medical Technology Company, and  |



|               |  |
|---------------|--|
| Company       | the China University of Geosciences purportedly showed 95-per cent accuracy on detecting COVID19 in chest CT scans. This system is trained on 45,000 anonymized CT scans using a deep learning algorithm (7).  |
| Nanox         | The Israel-based Medtech company, Nanox, has developed a mobile digital X-ray system that used AI cloud-based software to diagnose infections and help prevent epidemic outbreaks (7).   |
| Facebook      | Facebook is already working with researchers at Harvard University's School of Public Health and the National Tsing Hua University, in Taiwan, sharing anonymized data about people's movements and high-resolution population density maps, which help them forecast the spread of the virus (8). |
| Google        | Google said its team was working round the clock to safeguard our users from phishing, conspiracy theories, malware and misinformation; search for COVID19 brings an SOS Alert appears, alongside links to help and information about the virus (8).   |
| Benevolent AI | In February, British AI-startup Benevolent AI published two articles. The Lancet and second in The Lancet Infectious Diseases, that identify drugs that might block the viral replication process of SARS-CoV-2 (7)  |

### AI based Robot used globally during COVID19 pandemic

| Name of Robots                            | Services   |
|---|--|
| Prithvi                                   | Delhi students invented a robot that helped workers & COVID19 patients for reducing their contact. Prithvi can deliver food and medicines to patients (10).  |
| UBTECH Robotics' ATRIS, AIMBOT, and Cruzr | Deployed at Shenzhen hospital special for during treatment of COVID19 patient. These Robot providing videoconferencing services between patients and doctors, monitoring the body temperatures of visitors and patients, and disinfecting designated areas (10). |
| HEBI Robotics                             | This robot helped in social distancing by controlling a robot arm in Austria from their lab in Pittsburgh (11).  |
| SLIDER                                    | A robot at Imperial College London served as a sliding human for many purposes like medicine delivery and other (12)   |
| Robot 'Zafi' in Chennai                   | This robot delivered the food and medicines to patients at Chennai hospital and preventing doctors and medical staff from getting infected with the coronavirus (13).  |
| ASTRA                                     | A robot that could move and used powerful Ultraviolet C (UVC) to annihilate bacteria and viruses, including coronavirus (10).  |
| ASIMOV                                    | This Robot launch as a KARMI-Bot. This   |

|            |   |
|------------|---|
| ROBOTICS   | Robot could disinfect hospitals using UV rays and carry food and medical supplements to patients in isolation wards (14).                                   |
| UVD Robots | This robot also used for disinfection of room and wards using ultraviolet-light and product of Danish manufacture (12).                                     |
| BeamPro    | This robot used in Alexandra Hospital in Singapore for see and surveillance of isolated patients suspected of being infected with the new coronavirus (11). |

### Conclusion

Artificial Intelligence technologies proved a powerful technology during this COVID19 pandemic. All types of sectors used AI and supported the fight against COVID19 directly and indirectly. Now, usage of Artificial Technology is not limited at education and research institutes but it had been implied vigorously in various fields ranging from an individual to multinational companies and even by Government bodies of many countries to fight COVID19 pandemic.

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## Can Ancient Science And Wisdom Of Yagya Therapy ‘With Herbs Having Immune Boosting and Antiviral Properties’ Aid In The Fight Against COVID19?

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**Abstract.** In the COVID19 pandemic, there is strong need of immune boosting and mental health approaches which are easily available and traditionally used for preventing as well as managing COVID19 infection. Since past 40 years, Dev Sanskriti University (DSVV) and parent institution (All World Gayatri Pariwar) has been working on various aspects of traditional herbal utility and Yagya Therapy. Vedic texts mentioned use of herbal fumes for health benefits as well as purifying air and removing seasonal pathogens from air through *Bheshaj* Yajnas (Yagya / Hawan). *Bheshaj Yajna* (herbal fumigation) was widely used in India to combat seasonal epidemics; scriptures described them in details. Studies have shown Yagya Therapy and herbal fumigation effects in various diseases i.e, common diseases such as diabetes, thyroid, as well as life threatening diseases such as cancer, multi-drug-

resistant tuberculosis and in psychological ailments such as Obsessive-Compulsive Disorder and PolyCystic Ovarian Disease, epilepsy, depression, etc., indicating potential of herbal fumes for boosting immunity and aiding psychological wellbeing; besides, the herbal fumes is made using herbs known for their immune boosting and mental health care potential in Ayurveda and traditional knowledge. Hence, the study narrated the selective herbs which are pan-available and widely used traditionally in Yagya Therapy or generating herbal fumes, which can help boosting immunity and aid psychological wellbeing.

**Keywords.** Yagya, COVID19, Yagya Therapy, Immunity, mental health care, herbal fumes, air purification



## Introduction

In the COVID19 pandemic there is strong need of immune boosting and mental health approaches which are easily available and used traditionally. Since past 40 years, DevSanskriti University (DSVV) and parent institution (All World GayatriPariwar) has been working on various aspects of traditional herbal utility and Yagya Therapy through Brahmavarchas Research Institute, Department of Ayurveda and Holistic Health, Department of Applied Medicinal Plant Sciences, Shantikunj Herbal Pharmacy and Yagyavalkya Center for Yagya Research. Since the past 3.5 decades, Shantikunj Pharmacy has produced more than 40 types of products such as herbal powder, herbal tablets, and self-invested herbal formulations like herbal-tea (PragyaPey), etc. Department of Ayurveda and Holistic Health, have been producing and providing training for production of various herbs based products and 30 types of hawan-samagri (herbal-mixtures) for various diseases and ailments such as tuberculosis, seasonal Fever, High BP, Diabetes, Cancer, mental ailments etc. At Yagyavalkya Center for Yagya Research, herbal fumes for various diseases are processed for further mechanistic studies. At OPD at DSVV, since the past >15 years, patients are being advised for various alternative herb based methods and herbal inhalation therapy (Yagya Therapy).

Using this practical knowledge, considering the dire need of physical and psychological immune boosting approaches, the present report sets tone for utility of multi-herbal decoction for immunity and other vital benefits as supportive care and study for the application of the herbal smoke for providing anti-COVID-19 environment in the air and for human health.

## Use of Hawan /Yagya / herbal fumes for purifying air

Vedic texts mentioned use of herbal fumes for health benefits as well as purifying air and removing seasonal pathogens from air through *Bheshaj*Yajnas (Yagya / Hawan). *Bheshaj*yajna (herbal fumigation) was widely used in India to combat seasonal epidemics; scriptures described them in details-

‘Atharvaveda (3/21/1) and Chhandogya Upanishad (4/6)’. Ayurveda also mentioned holistic approaches for health and environment through herbal fumes known as ‘Dhoomnasya’ (1). Globally herbal fumigation existed in cultural and traditional use for pulmonary, neurological and air purifying purposes in more than 50 countries (2). In modern times, studies have also shown the antimicrobial and anti pathogenic capacity of medicinal herbal-fumes (Table 1).

## Yagya Therapy using specific herbs for getting therapeutic benefit in various diseases and ailments indicating its immune boosting and mental health care potential

Medicinal fumes of Yagya / Hawan containing phyto-constituents and nutrients can help increase immunity (3,4). Pulmonary inhalation of herbs has been traditionally used widely in the world. Survey of 50 countries indicated use of herbal smoke for treating neurological and pulmonary issues (2). Yagya Therapy is a herbal inhalation ancient method which implies Mantra and Yagya Energy to get therapeutic advantage such as immunity enhancement, psychological and emotional well-being and high immunity power is desired to fight against the pandemic.

At Dev Sanskriti University (DSVV) and Brahmavarchas Shodh Sansthan, All World Gayatri Pariwar, there has been intensive research going on Yagya Therapy. Various publications and several dissertations were carried out to evaluate the potential of Yagya Therapy as described in the scripture. Yagya Therapy has gained popular term Yagyopathy recently. Studies have shown its effect in common diseases such as diabetes (5), thyroid (6), as well as life threatening diseases such as cancer (7), multi-drug-resistant tuberculosis (8-10), PolyCystic Ovarian Disease (PCOD) (11)and epilepsy (12-13), and in psychological ailments such as Obsessive-Compulsive Disorder (OCD) etc indicating potential of herbal fumes for boosting immunity and aiding psychological wellbeing; besides, the herbal fumes is made using herbs known for their immune boosting and mental health care potential in Ayurveda and traditional knowledge.



At DSVV, Department of Ayurveda and Holistic Health is prescribing the Yagya Therapy to patients since 2003. Using traditional wisdom and methods, multi-herbal formulations for various anti-disease and seasonal herbal formulas are being prescribed to patients for Yagya Therapy. In addition, the department has also suggested a herbal formulation which can help purifying air, boost immunity and aid psychological wellbeing along with its potential to tackle fever etc resulting due to viral infections based on the traditional Ayurvedic knowledge of herbs, which can help to fight against COVID19 pandemic. The list of herbs with publications for their known

general anti-viral properties and antioxidant potential was presented in Table 3. These are most commonly used traditional herbs containing multi-dimensional properties for health. Traditionally these herbs are consumed widely without any significant contraindications throughout India for different needs under Ayurvedic practice. Most of the below herbs previously extensively had been studied for various activities including antimicrobial, immune-modulatory, anti-inflammatory, antiviral, antifungal, etc activity. Here, few anecdotal studies have been shown for antiviral and antioxidant activity.

| Study (reference)   | Method - Herbal fume   | Outcome (observation)   |
|---|--|---|
| Effect of smoke from medicinal herbs on the nosocomial infections in ENT outpatient department (14).              | Herbs used for medicinal fume were as follows: Giloy, Nagarmotha, KapporKachari, PalashBeej, LalChandanChooraa, Cheed  | Medicinal smoke caused over 95% reduction of aerial bacterial counts by 60 min  |
| Medicinal smoke reduces airborne bacteria (15).   | Herbs used for medicinal fume were generated through burning wood and a mixture of odoriferous and medicinal herbs (havansāmagri i.e. material used in oblation to fire all over India)  | Aerial bacterial population reduced over 94% by 60 min and induced absence of pathogenic bacteria <i>C. urealyticum</i> , <i>C. flaccumfaciens</i> , <i>E. aerogenes</i> , <i>K. rosea</i> , <i>S. lentus</i> , and <i>X. campestris</i> pv. <i>tardicrescens</i> in the open room even after 30 days |
| Gayatri Mantra Chanting Helps Generate Higher Antimicrobial Activity of Yagya's Smoke (16).                       | Methanol extracts of herbal fumes were tested for antimicrobial activity through disc diffusion method. Herbs used for generating fumes were Giloy, Nagarmotha, KapoorKachari, PalashBeej, LalChandanChooraa, Cheed  | Antimicrobial activity observed on human pathogens i.e <i>Escherichia coli</i> , <i>Staphylococcus aureus</i> , <i>Pseudomonas aeruginosa</i> , <i>Bacillus subtilis</i> , and <i>Salmonella typhi</i> and found reduction in all of them   |
| Validation of smoke inhalation therapy to treat microbial infections (17).  | Methanol and acetone extracts of herbal fumes were generated from indigenous South African medicinal plants i.e. <i>Artemisia afra</i> , <i>Heteropyxis natalensis</i> , <i>Myrothamnus flabellifolius</i> , <i>Pellaea calomelanos</i> & <i>Tarconanthus camphoratus</i> .  | Antimicrobial data revealed that in most cases, the 'smoke-extract' obtained after burning had lower minimum inhibitory concentration values than the corresponding solvent extracts and essential oils   |
| Validation of environmental disinfection efficiency of traditional ayurvedic fumigation practices (18)            | Environmental disinfection efficiency of traditional fumigation practice has been evaluated by using natural plant products such as garlic ( <i>Allium sativum</i> ) peel, turmeric ( <i>Curcuma longa</i> ) powder, Carom ( <i>Trachyspermum ammi</i> ) seeds (Ajwain) and Loban (resin of <i>Styrax benzoin</i> and <i>Boswellia</i> species). | SEM analysis showed reduced number of bacteria in garlic peel fumigated surface samples; ayurvedic fumigation with natural plant products was effective in reducing air-borne bacteria and in disinfecting inanimate surfaces   |
| Antimicrobial action of dhupana with respect to air borne microbes in indoor environment of central hospital (19) | Herbal smoke as per Ayurvedic standards i.e. dhupana (fumigation with herbs) was generated   | The effectiveness of herbal fumigation in its antimicrobial action was concluded after comparing the growth of microbes in the petriplate before and after fumigation   |
| impact of yagya on indoor microbial environments (20)   | Hawan fume generated using commonly used hawnsamagri herbs   | There was reduction in the colony counts of all micro-flora   |

**Table 1.** Researches showing anti-microbial and air purifying potential of herbal fumes generated through Hawan or other methods



| Plant Name Botanical (Traditional)                   | Known Antioxidant Properties  | Known Anti-viral & Anti-microbial plant extracts [Pubmed ID]  |
|--|---|---|
| Ocimum tenuiflorum (Tulasi)                          | The antioxidant activity was increased in all testing systems with increasing amounts of extract (21).  | Crude extract shown promising antiviral properties (significant virucidal activity, decrease in virus genome copy numbers) against H9N2 virus (40)  |
| Tinospora cordifolia (Giloy)                         | The antioxidant status in diabetic condition have been restored to normal by methanol extract of Tinospora cordifolia stem (22).  | Silver nanoparticles of T. cordifolia inhibited cell viability of infected in Vero cells with chikungunya virus (41). Herbal extract showed significant immunomodulatory potential through increase in the IFN- $\gamma$ , IL-2, IL-4, and IL-1 levels in the peripheral blood mononuclear cells (PBMCs) ( $p < 0.05$ ) of chickens infected with infectious bursal disease virus (42). |
| Andrographis paniculata (kalmegh)                    | The results showed that the aqueous extract of plant exhibited a greater antioxidant activity than the ethanol extract in all model systems tested (23).  | Plant extract has antiviral activity against wide range of viruses – HSV, HIV, flaviviruses, pestiviruses; effectively inhibited the expression of Epstein-Barr virus (EBV) lytic proteins during the viral lytic cycle in P3HR1 cells; Very potent antiviral inhibitory effects against DENV1-infected Vero E6 cells (43).   |
| Azadirachta indica (Neem)                            | The results suggested that extracts from leaf, flower and stem bark of the Siamese neem tree have strong antioxidant potential (24).  | Significantly blocked HSV-1 entry into cells & have a direct anti-HSV-1 property; shown virucidal activity against coxsackievirus virus B-4 (44).   |
| Nardostachys jatamansi (Jatamansi)                   | The jatamansi extract showed a concentration-dependent (5.0–100 $\mu\text{g/mL}$ ) antioxidant activity by inhibiting DPPH radical with an IC <sub>50</sub> value of 60.03 $\mu\text{g/mL}$ , whereas IC <sub>50</sub> value of ascorbic acid was found to be 14.44 $\mu\text{g/mL}$ , used as standard (25). | No known studies for antiviral effect but it is traditionally used for purifying air through herbal fumes   |
| Juniperus communis (Hauber)                          | The antioxidant potential was evaluated using the DPPH assay and found to be $81.63 \pm 0.38\%$ (26).   | Derivative from Juniperus plant extracts such as ferruginol and two analogues showed relevant antiviral activity against Dengue Virus type 2, human Herpesvirus type 1, and human Herpesvirus type 2 (45).  |
| Myristica fragrans (Mace & Seed) (Jayphal & Javitri) | The extracts of nutmeg and mace presented high anti-oxidant and anti-allergic activities. The anti-oxidant activity was measured by inhibitory effect on PMA-induced superoxide radical in DMSO differentiated from HL-60 cells (27).   | Showed human immunodeficiency virus (HIV)-inhibition activity - Anti-HIV-1 reverse transcriptase activity (46).   |
| Cyperus scariosus (Nagarmotha)                       | Potentially significant oxidative DNA damage preventive activity and antioxidant activity were noted in the plant extract (28).   | C. rotundus showed virucidal activity against HSV (47, 48)  |
| Syzygium aromaticum (Clove)                          | The clove bud extract had an antioxidant potential that makes it useful for addition to semen extenders (29).   | Possesses antiviral activity against Herpes simplex (49). Aqueous extract inhibits human neutrophils myeloperoxidase and protects mice from LPS-induced lung inflammation (50).   |
| Berberis aristata (Daruhalidi)                       | Effect of extract on antioxidant and carbohydrate metabolism regulating enzymes of liver was studied and concluded that the extract of plant (root) has strong potential to regulate glucose homeostasis through decreased gluconeogenesis and oxidative stress (30).   | Berberine from plant extract showed anti-human cytomegalovirus activity (51).   |
| Santalum album (White Chandan)                       | The extract showed DPPH radical scavenging activity in a concentration-dependent manner with maximum scavenging of 64% in presence of 500 $\mu\text{l}$ of aqueous extract (31).  | HSV-1 replication inhibition was dose-dependent and pronounced (52). Inhibitory effect in late viral RNA synthesis compared with oseltamivir in the   |



|                                      |   |   |
|--------------------------------------|---|---|
|                                      |   | presence of 100 µg/ml of β-santalol in MDCK cells against influenza viral replication (53).   |
| Cedrusdeodara (Devdaru)              | The chloroform extract of plant exhibited significant antioxidant potential mainly due to the presence of sesquiterpenes(32).   | Shikimic acid, ingredient of Cedrusdeodara, used as a key starting material for the synthesis of a neuraminidase inhibitor Tamiflu, for the treatment of antiviral infections such as swine flu (54). |
| Cinnamomumcamphora (Kapoor Bhimseni) | EtOAc and BuOH extracts of plant displayed strong anti-oxidative activity when tested by the DPPH and xanthine oxide (XO) assays (33).  | Camphor showed antiviral activity against HSV-1 and HSV-2 (55).   |
| Piper Cubeba (ShitalChini)           | The study showed fraction-based antioxidant activity of P. cubeba using four different assays and among all tested fractions, ethanolic extract revealed highest antioxidant activity (34). | Piperine from extract possessed remarkable inhibitory HBV activity, against the secretion of hepatitis B virus surface antigen and hepatitis B virus e antigen (56).                                  |
| Acoruscalamus (Kadvi Bach)           | The results revealed that the herb may be a good source of antioxidant to prevent oxidative deterioration in food (35).   | Methanolic extracts of A. calamus showed inhibition of DENV-2 at a dose of 20 µg/mL to 96.5% (57).  |
| Pavoniaodorata (Sugandhbala)         | The antioxidant activity of the plant extract was determined by using different assays that showed potential antioxidant activity (36).   | No known studies for antiviral effect but it is traditionally used for purifying air through herbal fumes   |
| Aquilariaagallocha (Agar)            | The investigation of the antioxidant activity of ethyl acetate extract of plant (EAA) indicated a strong antioxidant effect (37).   | No known studies for antiviral effect but it is traditionally used for purifying air through herbal fumes   |
| Valerianawallichii (Tagar)           | Methanol extract of roots of Valeriana jatamansi possesses remarkable antioxidant activity (38).  | Anti-HCV Activity from Semi-purified Methanolic Root Extracts of Valerianawallichii by binding with HCV NS5B protein (58).  |
| Cymbopogonschoenanthus (Agyaghas)    | Antioxidant capacity, enzyme inhibition, and antiproliferative effects were tested for biological activities (39).  | The C. schoenanthus essential oil was effective against Escherichia coli, Staphylococcus aureus, methicillin-sensitive S. aureus and Klebsiella pneumonia (59).                                       |

**Table 2.** Suggested list by Department of Ayurveda and Holistic Health, Dev Sanskriti University of 20 herbs based on safe-widely-used-traditional-knowledge and their known antioxidant and general antiviral properties

## Conclusion

The COVID19 pandemic has raised many new challenges and the whole world at economy and medical system is challenged. The immunity boosting and wellbeing approaches are urgent need for supporting the fight. Traditional knowledge of herbal fumigation and wisdom of Yagya can help in this fight. The study narrated the selective herbs which are pan-available and widely used traditionally in Yagya Therapy or generating herbal fumes, which can help boosting immunity and psychological wellbeing.

## Conflict of interest

The author declares that they have no conflict of interest.

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## Sustainable Rural Economic model of India – an emerging economy model for the world in the post covid-19 pandemic era

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**Abstract.** The COVID19 pandemic impact made a major revision in development thinking that is presenting fundamental challenge to the conventional consensus on economic development. The Indian rural economy is the great economic philosophy which involves economic and social values in itself. The basic model of such economy has several features which makes it self-dependent, the same model had motivated the Indian freedom revolution towards the swadeshi, indigenouness, with the icon of charkha, unified the whole country against foreign economic dominance and later to the freedom. Rural economy serves as the backbone and basic line of evolution of economy. It represents the single working unit with all the functions of economy. In post COVID19 era, need of self-reliance and sustainable economy, could be addressed through rural economical model existed in India since centuries.

**Keywords.** Rural economical model, COVID19, pandemic, sustainable, self-reliance, environment

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The soul of India lies in village. Soul means something eternal, immortal and in simple words sustainable. Something which is sustainable only can become self-reliant (*Atmanirbhar*). In the days of freedom revolution of India Mahatma Gandhi has visited the whole India to understand it's hidden values, ethics and strength and he found a self-reliant and sustainable economic model in Indian village, which retains the capacity of its sustainability and also solved such passel that how an economic and cultural revolution can beat the economic and political control Britain over the India.

A successful economy needs proper distribution of wealth, which creates employments and makes the

people more prosperous. This economic approach bridges the gap between rich and poor, and gives the opportunity of equality. In the modern economic age, we have concentrated our economic growth to a specific industrial areas; no doubt such approach has generated economic output and economic wealth, however it has also caused unequal and unbalanced growth, which had created various inequalities like growing difference between rich and poor, imbalances within the country like rich States and poor States, and also various well known environmental imbalances and hazards (1-2).

For example, in India, because of such modern economic growth the major chunk of working



population has shifted towards the industrial estates like Maharashtra, Gujarat, Tamilnadu, Andhra Pradesh, Delhi and Karnataka from Uttar Pradesh, Bihar, Madhya Pradesh and Chhatisgarh, Odisha, Rajasthan and other northern zones of our country. Resultantly, we have been apparently watching hyper inflation in land prices, huge cost of living, highly populated cities, pollution and low quality of life in industrial states. On another hand, backwards states are coping up with regular migration, economic dependence, unemployment, crimes, deficit infrastructure and scarcity of water and electricity, which also reduced their standards and quality of life. Lots of discrepancies are seen in our country which is result of current system with an output-growth-oriented economic model (1-2).

Weaknesses of such model became more visible in the age of corona (COVID19 pandemic) (3). The unrest within the migrant labors to turn back to their home land had been seen as a national phenomenon. If such model had remained capable to sustain its trajectory in fair direction i.e. balance between rural and urban employment, we would have not seen the irony of such withdrawal. To rebalance such situation we should try to rehabilitate our economy in its natural shape which is local economy (4).

The best way to shape the local economy is the restoration of rural economic model (4) because it has the natural sustainable capacity. Still in the villages we can find the economic locality like potter, black smith, gold smith, farmer, labor, milkman, tailor, weaver, local shopkeepers all are doing their jobs locally and are creating and distributing the wealth between each other without the fear of inflation. If our economy involves the new advancement in such rural economic behavior, and let it function in its own culture, definitely we will be able to sort out the various economic and social challenges such as like over populated cities, high living and social costs, health, education, pollution, deficit infrastructure, gap between rich and poor people.

### *Rural economic model of India*

In India, it is easy to re-start or the re-installation of this model, which Mahatma Gandhi endorsed; more than 50% population still resides in rural India, which is a great advantage having basic infrastructure. Also it is the need of current time, and Indian government is also promoting it as 'local vocal' and through incorporating through education system.

Manufacturing of products which can be made handmade or at local level (semi-manual) without factory should be made in village. Only items which cannot be made by hand, should be manufactured in industry, thus giving chance to thrive both rural and urban economy and bringing balance between them. Goods made with handmade or semi-manual methods can be supplied to the nearby cities, and thus help reducing pollution and transportation associated carbon foot print. This was happening in India until the modern industrial revolution has happened. This model can also help generate employment and enough resources to survive for all (5-7).

The small village can serve surrounding areas around cities. This is in very minimal form existing in India in the form of micro-industry for following products - cow based products, agriculture bio fertilizer, handmade cloth and handmade utensil, handmade food products like Jam, Jelly, Achar, etc, candles, dhoopsticks, soap. However, there is immense scope of handmade products like toothpaste, biscuits, soap, detergent, boxes, ink, utensils, etc (5).

The ancient Indian educational system of Gurukul was aimed at holistic development which made them great warriors and kings and a better citizen and included basic entrepreneurial skills along with cultural and spiritual teaching in life. Vedic culture provided sustainable economical development through rural lives of India considering need of both



nature (5) and humans (6), which becomes particular of importance during this COVID19 era.

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