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## IMPORTANCE OF YOGA INTERVENTION IN COVID-19 PANDEMIC

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### ABSTRACT

COVID-19 has caused severe damage to humankind. Physical, mental, spiritual as well as economic aspects are greatly disturbed. People suffered from many psychological issues like depression, anxieties and suicidal tendencies due to personal or professional issues. Musculoskeletal issues like back pain, neck pain increased due to lack of physical exercise as people were stranded at their homes during the lockdown. New variants start to become more complex and target different systems of the body. Yoga is scientifically proven to improves immunity through maintaining physical and mental well-being. In this article, we will review some important information regarding implementing the Yoga for improving overall health during pandemic.

**KEYWORDS:** Yoga, Health, COVID-19, Traditional medicine

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## **INTRODUCTION**

In December 2019, COVID-19 has spread rapidly in Wuhan, China and in no time, this communicable disease spread to the entire world by the starting of 2020. On 30<sup>th</sup> January 2020 the World Health Organization stated COVID-19 a Public Health Emergency of International Concern and a pandemic on 11 March 2020 (1). The incubation period of COVID-19 is 2-14 days after coming in contact with the virus. COVID-19 causes respiratory tract infections that may be asymptomatic or symptomatic, some people experienced mild to moderate respiratory illness and recover without any special treatment, whereas some patients develop severe symptoms and required medical assistance. Patients with comorbidities like diabetes, hypertension, respiratory disorders, or cancer developed more severe symptoms (2). COVID-19 patients may experience symptoms like Fever, cough, shortness of breath, loss of taste and smell, fatigue, body aches, nausea or vomiting. Symptoms that need medical attention are breathing difficulty, continuous chest pain, loss of consciousness etc. (3). As there were no treatment or vaccines available initially, the government took essential steps for the protection of the public like mandatory mask-wearing in public places, traveling restrictions, obligatory social distancing rules, finally a decision of imposing complete lockdown was taken. Other than exposure to virus, people developed various psychological symptoms like stress, depression, emotional fatigue, insomnia during lockdown (4,5). Despite the difference between infrastructural and mortality differences between the countries, the impact on mental health appeared to be quite similar (6).

As there was uncertainty about allopathic medicines to control the spread of the disease, people around the world inclined towards traditional, integrative, complementary and alternative system of medicine (7, 8). In India, several steps were taken to control the pandemic and boost morale of citizens of India. Ministry of AYUSH organized various programs to promote Ayurveda & Yoga for managing COVID-19 symptoms. Based the National Clinical Management Protocol based on Ayurveda and Yoga for management of Covid-19 was introduced with general & physical measures, dietary measures, and Yoga for primary prevention of COVID-19 and protocol for management of Mild COVID-19 (9).

## **FIRST WAVE OF COVID-19**

It's been two years; pandemic continues to affect the health of citizens of the world with emerging variants of COVID-19 till now. With every variant there comes

a new wave with different symptoms making it difficult to manage the situation. In this pandemic era, world panicked with fear of infection which affect their Physical and Mental well- being.

In India, there was an increase in COVID-19 cases from march 2020 onwards (10). Firstwave was somewhat manageable in India due to early implementation of lockdown, COVID cases were less as compare to other countries. However, the mental health of COVID-19 patients was severely damaged, stress levels were high due to fear of death (11). The sensitive group of people like pregnant and postpartum women were shown increased levels of depression, anxiety, loneliness due to COVID-19 pandemic. This increase levels of distress might cause negative impact on women and child health and development (12). Whereas during pandemic most children experienced irregular sleeping patterns, nightmares, poor appetite, inattentiveness and anxiety (13). Senior citizens faced many problems with their routine checkups and daily living activities due to crowded hospitals and lockdown. According to WHO, in April 2020, there were over

1.5 million positive cases of COVID-19 and about 92,000 have lost their life due to this fetal virus (14). Several Vaccines were introduced which are efficient in preventing theseverity of disease (15).

In India, Covaxin an indigenous vaccine was introduced by Bharat Biotech in association with Indian Council of Medical Research, along with the National Institute of Virology (16). Covaxin was based on complete infective SARS-COV-2 viral particle composed of RNA (ribonucleic acid) surrounded by protein shell, it is altered in such a way that it will not multiply (17). The vaccine efficacy of Covaxin against severe disease is 93%. In people below 60 years of age, efficacy was 79%; and in those above 60 years of age was 68% (18).

## **SECOND WAVE OF COVID-19**

All the preventive methods were crucial for everyone, with the 'new normal' like wearing masks, using hand wash or sanitizers, social distancing and availability of vaccines, after the first wave the patients recovered faster and number of cases went down for short period of time. In April 2021, easing of restrictions and Vaccine hesitancy resulted in a reoccurrence of Cases with new mutations in the COVID-19 virus with a wide range of symptoms affecting respiratory, digestive and cognitive functions. Pulmonary involvement of COVID-19 results in pulmonary edema, ground-glass opacities or alveolar collapse. The long-term effect of COVID-19

involve cognitive function (19). The transmissibility rate of delta variant was 40–60% more in comparison to the other variants (20). The delta variant rapidly spreads in Metropolis cities like Delhi and Mumbai and eventually affects the other parts of India. On a quantitative level, the delta variant has a tendency of 108% high risk in hospitalization, 235% increase in admission to ICUs, and 133% increased mortality rate than the original variant (21). This wave caused severe consequences as there was a shortage of ventilators (22), hospital beds because of the sudden surge in COVID-19 cases (23). The condition worsens when COVID-19 patients start getting Mucor mycosis as a complication (24). Due to increased burden on the healthcare system, the need of complimentary & alternative medicine felt more. With rich history of traditional medicine, India introduced many traditional medicines to manage COVID-19 (25). The vast spreading of delta variant emphasizes the importance of COVID-19 vaccination for protection against the variants of COVID-19 (26). The Indian government took essential steps for vaccination drive target first the sensitive population like adults above 60 years of age people with age of 45-59 having co-morbidities started getting the COVID- 19 vaccine in the first phase of vaccination drive.

### **THIRD WAVE OF COVID-19**

During the third wave biggest public health disaster in a century has caused an estimated 399,600,607 cases and 5,757,562 million deaths till 9<sup>th</sup> February 2022 (27). Omicron mainly affects the upper respiratory tract unlikely to delta and other variants which target the lower respiratory tract (28) Unvaccinated People, people with co-morbidities are higher risks of getting a severe infection. Some researchers also suggested that people might need to get the booster dose of COVID-19 vaccine for the protection against Omicron variant (29).

People has suffered a lot of mental traumata with every new variant and accompanying waves (29). The preventive measures still remain the mainstay towards limiting the spread of omicron within the community. This led us to conclude that persons own immunity is his best way against the COVID-19 Pandemic.

### **YOGA INTERVENTION**

The World Health Organization (WHO) describes Yoga as a imperative tool which enhances physical activity, mental wellbeing (30). Yoga is a holistic approach which works on whole body and spirituality. Yoga includes cleansing techniques in the form of *shatkarma* to balance the *Tridoshas*, physical exercises as *asana*,

breathing exercises includes pranayama, deep relaxation and meditation to induce awareness and a state of consciousness (31). *Pranayama* practices improves the pulmonary functions and also helps to prevent respiratory diseases in future (32). Pranayama practices efficiently utilize the diaphragmatic and other respiratory muscles which improves the functioning of Respiratory system (33). Yoga & Meditation helps to reduce depression, anxiety (34), increase attention, memory, and positive attitude (35). Meditation has shown to enhance the regional cerebral blood circulation in the frontal and anterior cingulate regions of the brain, [36, 37]. Thus, improving the brain's executive attentional network (38). In the pandemic, people have learned more about the positive impacts of yoga (39). Practicing yoga regularly increases peripheral oxygen saturation and efficiently eliminates the carbon dioxide and reduces stress hormones and enhances the body's innate immune systems (40, 41).

## **DISCUSSION**

COVID-19 has affected the lives of every individual in various ways. Personal as well as professional lives suffered a huge loss. People learnt the importance of immunity and fine health during this pandemic. It was observed that COVID-19 initiates cytokinin storm, leading to various clinical manifestations such as lymphocyte dysfunction, lymphopenia, septic shock, and multiorgan failure. With the limitation of pharmacological management of COVID-19, importance of traditional /alternative treatments has gained popularity globally. In India, Yoga as a traditional way to enhance mental and physical well-being were adapted by many people for prevention as well as management for COVID-19 symptoms. It has been realized that Yoga is essential to maintain the well-being in the era of pandemic. It is a non- invasive, self-care method that improves the overall health of patient. Yoga practice can reduce the risks of comorbidities conditions and strengthen all the systems of body, it reduces stress and anxiety or directly improving immune markers (41). This review summarizes the COVID-19 sequence and realization of importance of immunity by adopting traditional system of medicine.

## **CONCLUSION**

The impact of post-COVID conditions is still unknown. With more waves we might experience negative health outcomes in people whether they are vaccinated or not. Improving our immunity is our best choice. Overall, the pre-existing scientific data indicate that practice of yoga, pranayama and meditation have the potential to strengthen our mental physical and spiritual wellbeing by improving

our immunity and reducing the stress. This can be our effective prevention as well as a therapeutic measure against COVID-19 pandemic.

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