Yoga for combat with COVID-19 epidemic

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Abstract
The Epidemic has shown its effects on us at different times in different ways in this world and over time its effects have diminished. Those who were capable of fighting against the epidemic survived in the world. We are facing the same situation at this moment. So our aim should be confined to strengthening ourselves physically and mentally and should not concentrate much on the effect of this coronavirus. Commonly affected area due to Covid-19 is mostly on the lungs. People suffering from various physical problems like respiratory problems, diabetes, kidney problems or low immunity have high risk of death. Throughout the world about Yogic practices are prescribed by different doctors, medical scientists, virologists even the scientists of WHO for boosting the immunity. Till date no specific medical treatment or preventive measure is available. So people have to depend on naturopathy. Yoga is one of them. Scientific researches on yoga have shown that yogic practices (Asana, Pranayama, Kriya, Mudra and Bandha) enhance respiratory capability, muscular strength associated with respiratory organ and boost up immunity power which are necessary requirements to fight Covid-19. Along with these practices other valuable teachings of Yoga Sastras (Patanjali Yoga Sutra, Bhagvat Gita, Yoga Vashista) are effective to strengthen mental power.

Keywords: COVID-19, yoga, epidemic

Introduction
The Covid-19 is an epidemic declared by the world health organization. The whole world is suffering with this problem. This virus is spread man to man. The number of people affected by coronavirus worldwide is increasing day by day and also increasing the number of deaths. It is difficult to say when will we find a permanent solution? But various universities, research labs are still working to develop a vaccine. Surveys have shown that the mortality rate is higher among elderly people due to the poor immunity and other health problems. Therefore, WHO has recommended guidelines to improve general health, including physical activity, nutrition, mental health, behaviour. Commonly affected area due to covid-19 is mostly on the lungs. People suffering from various physical problems like respiratory problems, diabetes, kidney problems or low immunity have high risk of death. The government rule has stay at home. Due to this physical isolation increasing anxiety and stress. So in this situation, our biggest challenge is to keep ourselves physically and mentally strong. But the question is how we will keep ourselves fit in this difficult situation. One of the oldest methods of Indian culture is yoga that teaches us how we enhance our positive health. Throughout the world, yogic practices are prescribed by different doctors, medical scientists, virologists and even the scientists. Scientists say that if we develop our immune system then we can combat with this virus. The different research proved that the practice of yoga improves our immune system and respiratory capacity [1, 2].

Objective of the study
The objective of the study knows the effectiveness of yogic practices with scientific evidence and its importance in the prevalent pandemic situation.

Tips to prevent COVID-19 outbreak–WHO
- Wash your hands frequently
- Maintain social distancing
- Avoid touching eyes, nose and mouth
Practice respiratory hygiene

Research studies found the effects of yogic practices
- Yoga practices improve pulmonary functions in healthy individuals and hence to prevent respiratory diseases.[1]
- Yoga practice reduced the levels of adrenaline and increased levels of serotonin.[4]
- Yogic exercises are beneficial for the better maintenance of body functions, particularly pulmonary functions, even in normal healthy subjects.[2,5]
- Prenatal yoga significantly reduced pregnant women's stress and enhanced their immune function.[6]
- Humming breath (low pitch Bhramari) caused an increase in nasal nitric oxide compared with quiet exhalation.[7]

Effectiveness of Nitric Oxide
According to Nature Publishing Group Nitric Oxide has been recognized as the most versatile player in the immune system. The most important thing about being healthy nose breathing which increases nitric oxide in the bloodstream.

- According to the Ferid Murad (Nobel Prize winner in Physiology or Medicine 1998) Nitric Oxide is a unique signalling molecule in the cardiovascular system. It is incredibly important in cardiovascular signalling and health.
- Today, it is recognized that nitric oxide is a widespread signalling molecule in all organs of the body, not only in the cardiovascular system. Nitric oxide (NO) production happens in the paranasal sinuses. It is working as a vasodilator, so helps to decrease blood pressure and improves blood flow to the organs, boosts immune defence, and aids in the destruction of viruses and parasitic organisms.[8].

Symptoms of low immune system
Among the various systems the immune system is very important to us which helps to fight against different diseases. If our immune system is weak then we face several problems such as:
- High stress level
- Frequently suffer from cold
- Lots of tummy troubles
- Slow healing process
- Feel tired all the time

In this situation, we need to improve our immune system. Various experiments have shown that if we maintain balanced diet, do regular physical exercise, take enough sleep, then we will be able to improve our immune system.

Adopting essence of scripture and combat with covid-19
Our several ancient yoga texts mention the ways how to live a better life and keep the body healthy, strong.

God says in the Bhagavad Gita:

युक्तात्लििहिः मुलं मुलंहन्त्या कर्मम् ||
युक्तात्लििहिः मुलं मुलंहन्त्या भवति दुःखा ||BG 6:17||

Mean people who have taken proper diet, involved with proper recreation, balanced in the work and regulated in sleep can mitigate all sorrows.[9]

When a controversy arises in our minds at that point we should exactly cultivate an alternative (प्रतिसामान्यम्) [9].

It is very important to develop these kinds of thinking and follow lifestyle during this epidemic. Because if we think too much about this coronavirus, it will cause stress anxiety in us. So we should not be too afraid and worry about this issue.

In the Yoga Shastra there are mentioned three types of dukhas:
1. आति भौतिक: 2. आति देविक, 3. आधायात्मिक.
आति भौतिक: This type of dukha caused by other living beings, like wild animals, snakes.
आति देविक: This is caused by supernatural power, like floods and earthquake.
आधायात्मिक: It happens for its own reasons, like fever, stress.

Coronavirus is a type of आध्यादमिक dukha, because it originated from animals (bats). It is possible to cease the आध्यादमिक dukha through awareness. So if we are increasing our awareness then we will be able to prevent this virus. We can improve our awareness if we study the scriptures and at the same time follow the rules and regulations mentioned in the yoga scriptures.

२०२० ५लीं सुकृतकर्म यथा दृष्टासुन्दरर्् ।
अविरुद्धशृणुषु शास्त्रं वाष्टोपबन्धुनु ॥

Listening to the subject of the Scriptures with its beautiful examples is very pleasing. The meanings of the scriptures are unbreakable, endless, and like friendship (Yoga Vasistha: 2.13.15)

<table>
<thead>
<tr>
<th>योग</th>
<th>II 2.30 II</th>
<th>निश्चय</th>
<th>II 2.32 II</th>
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</thead>
<tbody>
<tr>
<td>अभिस्व: Kindness, non-harming</td>
<td>श्रियः: Cleanliness</td>
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<td>न्यूः: Honesty</td>
<td>प्रसन्नः: Contentment</td>
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<tr>
<td>अभिस्व: Non-harming</td>
<td>मयः: Austerity</td>
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<tr>
<td>प्रक्षर्यः: Continence</td>
<td>स्वायये: Study [of the Scriptures]</td>
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<td>अपादाय: Non-covetousness</td>
<td>क्रियाधिकारिः: Devotion to God</td>
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Yogic practices for respiratory system
Asana
- Supine Posture: Sarvangasana, Setubandhasana, Matsyasanas.
- Prone Posture: Bhujangasana, Naukasana, Dhanurasana.
- Sitting Posture: Ustrasana, Mandukasana.
- Standing Posture: Hastauttanasana, Virabhadasana.

Pranayama
Nadi Sodhana, Bhramari, Ujjayi, Bhashrika

Kriya
Kapalabhati, Jala neti, Sutra neti

The knowledge and different practices of yoga develop self discipline, attitude, positive habit, health and movement of prana. The practices prevent suffering from diseases and enhance life span.

Conclusion
The human immune system can play a vital role in preventing an individual getting the novel coronavirus infection. It was found in different studies positive effects of yogic practices on immune system as well as respiratory system. The current public health recommendations promoting physical activity during COVID-19. If we successfully adopt yogic culture along with maintaining habits of social distance and stay at home then definitely we shall effectively combat with this epidemic.
References


9. https://www.gitasupersite.iitk.ac.in