

Increasing Immunity to Fight against Novel COVID-19: Noninvasive Public Health Approach

Viral diseases, such as COVID-19, are considered to be highly mutated, and vaccines or treatment are not much effective and available.^[1] The only possibility of prevention in public health is by increasing immunity. On the contrary, in situation like current pandemic of COVID-19, there is increased stress and anxiety among healthy individuals too, which in turn reduce immunity and make them vulnerable to infection.

One of the highly effective approaches, which are largely ignored by scientific community, is sound therapy by mantra (prolonged repetitive verbal utterance) to improve health and immunity, and to reduce stress and anxiety. The technique of mantra meditation studied by Spain researchers (2014) seems to have a significant effect on immune cells.^[2] This effect is manifested in the different circulating levels of lymphocyte subsets, neuroendocrine axis.

The descriptions left by mantra or tantra users in the past were often detailed and empirical, but they were about subjective phenomena, rather than external objects. They also focused on individual experiences, rather than the group-level analyses favored by modern medical science.^[3] However, recently group-level studies conducted by Indian researcher (2020) for mantra sounds have proven to increase immunity, reduce stress, and affect the expression analysis of steroidogenic (*CYP19A1*, *STAR*, and *HSD17β1*) and proliferative marker (*PCNA*) gene upregulation in short durations.^[4]

Researchers from Italy and USA recently (March, 2020) found that the method in which mental process of transcending, using a silent mantra, was associated with increased connectivity between posterior cingulate cortex (PCC) and right insula, likely reflects changes in interoceptive awareness and reduces stress and anxiety along with increasing immunity.^[5]

Mantras, such as “*Shree Uvasaggaharam Strotra*,”^[6] are considered to be producing immense energy due to sound produced by mantra and have an effect on cognitive and psychological health, improving immunity. It's the faithfulness based practice. It possibly affects by several ways like reducing self oriented thoughts, increase endogenous neural vibrations in lower frequency delta-band, specifically in the posterior cingulate cortex (PCC), raising electro-magnetic activity, positive reduction of stress hormones, and the parasympathetic tuning of cardiac function. Research in this field is still in a emerging stage and the provisional construal discussed here can serve to provide few hypotheses for future research. Such mantra recitation is especially

useful for prevention in such time of COVID spread, to control anxiety, fear, or stressful situation for healthy individuals too.

The exact effect of mantra was found sufficient to induce a widespread reduction in blood oxygenated level-dependent (BOLD) functional magnetic resonance imaging (fMRI) signal describing largely unidirectional and widespread reduced cortical activation compared to resting baseline. The effect remained significant even after the concatenation.^[7]

In the past too, various researchers have found the mantras for reductions overlapped large cortical regions, including the default mode network (DMN) of the brain. The DMN has been related to a variety of self-related processes, such as autobiographical recall, future planning, as well as “mind wandering” and “stimulus independent thought.”^[8-11] However, it was never considered as a tool for public health to increase immunity, control anxiety, and stress, reducing the overall cost of health care.

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CONFLICTS OF INTEREST

There are no conflicts of interest.

Rushabh Jayeshbhai Dagli

Department of Public Health Dentistry, Rajasthan University of Health Sciences, Rajasthan, India

Address for correspondence: Dr. Rushabh Jayeshbhai Dagli, Department of Public Health Dentistry, Rajasthan University of Health Sciences, Rajasthan, India
E-mail: r.j.dagli@gmail.com

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