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Short Communication

Mantra meditation and health

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1. Introduction

Chanting of mantras is the most sacred practice in almost all religions and philosophies across India and the world.[1] They have great spiritual, religious, ritual, social, and emotional meanings. Despite its positive effect on physical and mental health, scientific studies to explore it are still in their infancy.[1,2] Now, researchers are actively engaged in documenting its effect on health. They are now approaching their conclusions using advanced gadgets and by analysing EEG and functional magnetic resonance imaging (fMRI) studies.

A mantra is a word or phrase repeated aloud or silently and used to focus attention.[2] Mantra meditation has its roots in the spiritual practices of many ancient traditions, including Hinduism, Buddhism, Jainism, and others. Om chanting in Hinduism, Navkar mantra in Jainism, and Gurbani in Sikhism are a few examples. The ultimate goal of various spiritual practices is to achieve the highest level of universal consciousness and freedom from the cycle of birth and death.[1]

This communication aims to summarise the benefits of mantra chanting through the various scientific studies.

1.1. Improvement in mental health

Mantra meditation results in developing inner peace, deep relaxation, heightened focus, improved psycho-physiological arousal, increased self-awareness and attention, and higher spiritual awareness.[1,3-6] There is a positive impact on anxiety, stress, sleep quality, and quality of life.[7] In one such study on 32 participants attending a residential camp of Gayatri Sadhana, Sharma et al. (2024) showed a significant improvement in general well-being, peace of mind, and sleep quality, and a significant reduction in stress and negative affect among all participants ($p< 0.01$).[1] Thanneeru et al. (2022) documented that it also plays a role in the management of major depressive disorder (MDD).[7]

Telles et al (1998) and Das and Anand (2012) demonstrated a decrease in heart rate and respiratory rate and an increase in galvanic skin response (GSR) following mantra meditation, suggestive of body and mind relaxation, and reduction in stress level.[8,9] This is attributed to relaxation in the mind and body through parasympathetic dominance.[1,10]

1.2. EEG

The last decade has witnessed many studies documenting the effects of mantra meditation using advanced techniques such as EEG and functional magnetic resonance imaging (fMRI).[2,6,11] Thomas and Rao (2016) studied 12 meditation-naive normal volunteer subjects. There was a minimal increase in the percentage of gamma waves after listening to the Gayatri mantra for 15 minutes.[2] Few other studies have observed an increase in theta and delta waves following Om chanting and singing.[7,12] A significant increase in alpha band power after Hare Krishna Mantra meditation, suggesting a relaxed and peaceful state of mind.[12]

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1.3. fMRI

Thomas and Rao (2016) studied 8 meditation-naive subjects with fMRI and demonstrated a significant activation over the bilateral superior temporal gyri, right temporal lobe, right insula, left inferior parietal lobule, lateral globus pallidus and cerebellum.[2] Activation of the right insula and frontal lobes is associated with calmness, enhancing thinking processes, and improving memory. Thanneeru et al (2022) demonstrated reduced activity in the anterior cingulate and orbitofrontal cortices following OM chanting, suggesting a reduction in anxiety and stress, and an improved quality of life.[7]

2. Conclusions

Mantras have the potential to alleviate stress and enhance the general well-being of individuals.[1] However, it is premature to draw a definitive conclusion. Better study designs and standardised protocols will give us deeper insights into the subject.

3. Source of Funding

None.

4. Conflict of Interest

None.

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