

Meditation and Health: Becoming Healthy and Reversing Age by Controlling our Monkey Mind

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“Monkey Mind” is a core notion in our contemplative traditions which refers to the natural tendency of our mind to move seamlessly from one thought or sensation to another. The scientific community has termed it as mind wandering (MW). During MW, the mind moves continuously in mind space without any aim or fixed course, leading to prominent activation of the Default Mode Network (DMN), in which the frontal and parietal lobes play a central role. One of the ways to get in control of the monkey mind or MW is through meditation.¹

Due to the diversity of practices, meditation has been defined in many ways. Some authors defined it as “paying attention in a particular way: on purpose, in the present moment, non-judgmentally.” Others defined it by its neurobiological correlates as “a complex neural practice leading to changes in neurophysiology and neurochemistry of the brain, resulting in altered neurocognition and behavior in the practitioner.”² Even though meditation is currently in practice, it has been mentioned in ancient times such as in the Vedas.

Meditation has been broadly classified into two types: focused attention meditation (FAM) and open monitoring meditation (OMM) with many similarities between the two. FAM consists of sustaining attention repeatedly on an object or event, such as breathing (e.g., mindfulness of breathing). OMM consists of maintaining open awareness of the self and embracing every experience that arises to consciousness. OMM views thoughts and feelings as transient mental events and observes them with an open, accepting attitude, by remaining equanimous. There is no resisting nor elaborating on mental content. The meditator maintains a mental posture of not being swayed or engrossed by the emotional value of thoughts but simply watching them as they appear and fade. Vipassana meditation is one of the types of OMM.^{1,2}

Traditionally, meditation was considered a spiritual practice; however, recently, meditation has been practiced by many individuals due to its positive effects on health. The first robust evidence of meditation in health was published by Wallace in 1970. He used EEG and other physiological measures to monitor meditative states and found the surge of theta waves, a frequency decrease, and an increase in the amplitude of the alpha waves. The author concluded meditation as a hypo metabolic state

with a predominant expression of the parasympathetic nervous system and a reduction of the sympathetic tonus.³

Meditation and Mental Health

The recent systemic review published by Portella et al., 2021 has concluded the benefit of meditation in mental health, especially in positive effects for reducing depressive symptoms and anxiety in patients with mental disorders.³ Psycho-affective states such as stress, depression, anxiety, and neuroticism affect sleep, cognition, mental health, and well-being, especially in aging populations, and plays risk factors for to be associated risk for Alzheimer’s disease. Mental training such as meditation has proven to reduce these adverse factors.⁴ The regular practice of meditation improved different cognitive and affective processes, such as attention and emotion regulation, especially beneficial for those affected by chronic pain, stress, anxiety, and depression.¹

Increased level of psychosocial work stress hampers both the employee and the employer leading to poor mental and physical health, depression, anxiety, cardiovascular disease, and type 2 diabetes. Mindful meditation reduced stress by improving the capacity to cope with stressful situations. The study published by Bostock et al., 2019, reported that even a brief mindful meditation multiple times a week for 8 weeks improved well-being and decreased distress in working conditions. This is especially required for medical personnel like us who have to work in a continuous stressful environment.⁵

Sleep disturbance is a common health issue estimated to affect 10–25% of the general population, which can lead to mood and anxiety disorders, cognitive impairment, and a variety of medical conditions, such as cardiovascular disease and obesity. Working in the medical field, medical personnel have to go through disturbed and unpunctual sleeping patterns. Recently, mindful meditation has been used as an alternative treatment for sleep disturbances. A meta-analysis published by Rusch et al., 2019 concluded that meditation can improve sleep quality in a variety of clinical populations with sleep disturbance.⁶

Meditation, Aging, and General Health

Telomeres are the protective cap of repetitive DNA sequences at the ends of chromosomes.⁷ Although chronological age predicts disease and death, individual variability exists. One of the markers of biological age and the factors influencing it includes telomere length. Short telomeres are associated with poor general health and earlier death.⁸

Short telomere length is linked with common diseases of aging such as cardiovascular disease, stroke, dementia, cancer, osteoporosis, diabetes, and joint fibrosis. Telomere length has also been linked to chronic stress exposure and depression. The results of the meta-analysis with potential clinical significance suggests that meditation-based interventions may impact telomere length, which in turn is associated with health and aging.⁷ A greater amount of meditation practice may be especially conducive to telomere maintenance leading to longevity.

The literature describes several relevant factors in which meditation affects the physiological and metabolic part of general health. The ability to promote neural plasticity through meditation practice has significant physical and metabolic impacts. Meditation has been found to have a positive effect on some biomarkers of immune system activity, such as CD4+ T cell counts and activity of the cellular transcription factor.⁷

Conclusion

Meditation techniques can be used and benefitted by everyone such as children, adolescents, pregnant women, the elderly, health professionals, and caregivers. It can be valuable to people with chronic diseases and cancer, having great potential from the public health aspect, given its impact on physical and metabolic health conditions leading to physical and psychological well-being.

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