

The effectiveness of mindfulness-based intervention on stress management during COVID-19 among caregivers and health professionals

Abstract

Background: The stress that the present global pandemic of COVID-19 has generated in every aspect of human life can be managed by activities such as meditation and mindfulness, especially among healthcare practitioners, patients, and caregivers, as well as the common man during times of crisis.

Objective: To discuss the psychological impact of COVID-19 and the role of mindfulness in reducing stress and improving psychological health among caregivers and healthcare professionals.

Method: We collected around 68 reviewed articles from electronic databases such as PubMed, EBSCO, CNAHIL, and Google scholar using the search terms COVID-19, stress, mindfulness, school teachers, parents and health care professionals burnout, and sleeplessness. Thirty-seven articles were included after carefully reviewing mindfulness-based stress reduction. The mindfulness-based stress reduction and remaining articles were excluded as the report focuses on caregivers and health care professionals.

Results: Mindfulness appears to be an effective intervention to improve mental health, and stress reduction enhances the professional performance of medical health professionals and caregivers. There is a significant reduction in stress among caregivers, parents and health care professionals.

Conclusion: Mindfulness is a safe, practical, integrative approach to reducing stress. Caregivers and healthcare providers experiencing stress or stress-related symptoms benefit from mindfulness-based programs.

Keywords: mindfulness, COVID-19, stress, social media, mental health

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Introduction

Coronavirus disease 2019 (COVID-19) has disrupted almost every aspect of our day-to-day lives, causing quarantine, physical detachment leading to social isolation, economic hardship, fears of getting a potentially deadly infection, and thoughts of helplessness and hopelessness. Regrettably, there is yet no method or practical guide for coping with the current global pandemic.¹ Since Nov. 2019, online and print media have been tracking the virus and its effects. The moment we realized the virus was an infectious disease, governments devised measures like lockdowns and quarantine to prevent and slow its dissemination. While the number of deaths increased, the news created stress and fear among the people, which led to different mental health issues for patients and medical professionals and the public. The major problems have been stress, fear, anxiety, depression, sleeplessness, and loneliness. Loneliness and social isolation are the most well-known risk factors for poor health that accelerate mortality. Yet mitigating these social risk factors is challenging since few interventions have been helpful for both reducing loneliness and increasing social contact. The global pandemic of COVID-19 has led to the unavoidable isolation of people worldwide, thus triggering harmful emotional effects such as uncertainty, irritation, and stress.² Mindfulness interventions, which train people in skills for monitoring present-moment experiences with an orientation of acceptance, have shown promise for improving social-relationship processes.³ They also help individuals take a non-judgmental approach to the present moment, promote sleep, and decrease stress during regular times.⁴

Factors contributing to stress

There are many factors which contribute to stress in our day-to-day lives. They include disappointment with one's job; heavy workloads; long working hours, high expectations for life; lack of decision-making ability; lack of self-confidence; discrimination from family and friends; lack of a support system; marriage problems; migration; death; loss of a job; financial issues; terminal or chronic illness; physical or mental health issues; emotional problems; traumatic events; love failure; fear; unrealistic expectations, etc.⁵ The primary factors contributing to stress during COVID-19 have been the tension caused by one's own or a family member(s)' or relative(s)' infection; disruption of the normal flow of education and plans; rising financial difficulties; losing jobs; the uncertainty about one's future career; the threat of a looming food crisis; sickness of the respondents themselves or family member(s) or relatives; and the need for hospitalization.⁶

The consequences of stress during COVID-19

The fear associated with the COVID-19 pandemic has affected all aspects of people's lives, mainly their mental health.⁷ A study conducted in China during the initial outbreak found that 53.8% of respondents claimed moderate to extreme psychological effects; 16.5% recorded moderate to severe depressive symptoms; 28.8% testified to mild to severe anxiety symptoms, and 8.1% described moderate to intense levels of stress. Females reported experiencing a higher degree of the psychological impact of the outbreak, including stress, anxiety, and depression, than men.⁸ A similar assessment of the mental

health of frontline clinicians in China found that the prevalence of anxiety and stress disorders was 23% and 27%, respectively.⁹ Another study conducted among medical staff found a 34.7% incidence rate of overall anxiety and 24.8% of mild anxiety across 8028 doctors and nurses on the front lines.¹⁰ Anxiety and fear negatively affect the physiological systems that protect individuals from infection.¹¹

The probability of fostering anxiety and depressive symptoms among individuals suffering from life-threatening circumstances is remarkably high.¹² In addition, home confinement and related social and physical isolation are important risk factors for developing mental health issues.¹³ In a large proportion of patients during the disease's acute period, COVID-19 can induce delirium, leading to depression, anxiety, exhaustion, post-traumatic stress disorder, and unusual neuropsychiatric disorders for an extended period.¹⁴ It has been noticed that the inevitable consequences of lockdown and quarantine include tension, anxiety, depression, and the trauma of confusion, and thus lead to physical and mental health deterioration.¹⁵

The COVID-19 pandemic has brought about significant stress and anxiety for many parents worldwide. Psychological flexibility and self-care are fundamental aspects of psychological health.¹⁶ Parents frequently suffer from disorders such as stress and depression due to the high pressures of childcare. In particular, nurturing children with some form of developmental disability, in whom pandemic conditions may have induced increased maladaptive behavior, may increase daily parenting stressors. The fast-spreading repercussions of the COVID-19 pandemic have left many parents around the world to manage various stressors in quarantine.¹⁷ Burnout has been another work-related problem affecting healthcare providers, particularly during the COVID-19 pandemic. The frontline health workforce is experiencing a high volume of work and multiple psychosocial stressors which may influence their mental and emotional health, leading to burnout symptoms. Sleep deprivation and a critical lack of psychosocial support may aggravate such symptoms amidst COVID-19¹⁸ sleep disturbances may end up hampering the immune response that is so vital for fighting diseases.¹⁹

COVID-19 and social media

The elevated death rates due to COVID-19 resulted in immense panic and anxiety all around the globe. Due to physical distancing and quarantine policies, social media has become the leading source of information. Many citizens use social media as a source because it is easy to find information from different sources. But there are many research findings that social media is the crucial broadcaster of health misinformation, and many studies have documented the harmful effect on health behavior due to the wrong messages being spread through social media (they are commonly called "conspiracy theories"). There is a negative relationship between COVID-19 health-protective practices and using social media as a source of information since information spread through social media is not monitored or censored; wrong information can cause health risks.²⁰ All forms of media (official, commercial, social, and overseas) cause indirect traumatization of their customers on different levels and over-dependence on media for information leads to anxiety.²¹

Mindfulness

Jon Kabat-Zinn, who developed mindfulness-based stress reduction, defined mindfulness meditation as "the awareness that arises from paying attention, on purpose, in the present moment and non-judgmentally". Mindfulness is not an abstract state; it is a kind, curious, non-judgmental awareness that we can try to bring to each moment. Mindfulness is the energy we develop through variety and

present-moment recognition. It requires the practice of returning to the peaceful benevolent space we all have inside ourselves with curiosity, without judgment. It is a way of preparing our minds through intentional awareness so that they stay in a more quiet and gentle state.²²

Mindfulness practice

"Mindfulness practices are both formal (*e.g.*, sitting meditation) and informal (bringing mindfulness to daily life, *e.g.*, mindful eating.²³ Mindfulness practice starts with a 5-minute body scan, in which participants are asked to use their breath²⁴ as a presenter to help focus on the present moment.²⁵ Participants are directed to concentrate on the sensations in their body consecutively from foot to head. Mindfulness helps bring attention to existing experiences, including thoughts, feelings, and physical sensations, with openness, curiosity, and recognition.²⁶ Mindfulness practices can be learned and conveniently performed anywhere and time.²⁷ The benefits of mindfulness practices include the expansion of emotional modification; reducing reactivity and improving flexibility; emotional control; boosting relationships; better functioning of the central part of the brain's prefrontal lobe; enhanced immune functioning; an improved sense of wellbeing; and reduced psychological distress.²⁸

Mindfulness in mitigating stress during COVID-19

It is essential to have positive psychological qualities to counteract the adverse effects of fear and anxiety since they help reduce the psychological pressure of persistent stress.²⁹ Mindfulness-based training, which focuses on various meditation practices to cultivate non-judgmental awareness in the present moment, is especially helpful in alleviating stress in people with debilitating physical conditions.³⁰ Recent studies have shown the effectiveness of mindfulness as an intervention targeting behavior such as aggression, self-injury, and non-compliance with authority. A study in Wuhan, China, found that anxiety could be reduced by regular mindfulness exercises.³¹ A group of managers and resident welfare organizations coordinated online mindfulness groups, where individuals came together and participated in a brief activity that provided a sense of belonging and relieved the adverse effects of social remoteness that individuals can experience as they cope with the epidemic.³²

A study by³³ evaluated the impact of a two-week online Mindfulness Meditation (MM) intervention on depression, stress, and anxiety levels. It provided insight into the participants' motivation and experiences during the intervention, revealing significant reductions in the gravity of depression, anxiety, and stress symptoms (all $p > 0.001$). For scholars, yoga and mindfulness are trending as the utility of their methods is no longer confined to Eastern countries but has been broadly disseminated throughout the world's Western territories. Historical data has shown that yoga has been practiced as a cure for specific disorders and as a discipline for physical, emotional, and spiritual enrichment.³⁴

Implications

Dispositional mindfulness skills positively correlate with reduced post-traumatic symptoms.³⁵ Awareness-based approaches can improve services, minimize post-emergency trauma, and avoid long-term psychopathological results for vulnerable populations, including health workers, psychiatric patients and their caregivers, and patients with long-lasting illnesses.³⁶

Recently two popular mindfulness-oriented meditation phone applications began to be offered to healthcare workers. The apps "Happier and Headspace" and "Insight Timer" feature programming

designed explicitly for the effects of the COVID-19 virus. These mindfulness-oriented meditation techniques and other MBSR (Mindfulness-Based Stress Reduction) exercises may help nurses, pharmacists, and other health care providers focus on the present moment and protect themselves from unwanted pathogen exposure by reducing stress. Also, mindful inpatient care may reduce the risk of medication errors, an area of care involving additional attention as work-related tiredness and fatigue rise. MBSR exercises may be done quickly and within the framework of nursing practice, making it an ideal occupational stress management tool in overwhelming workplace environments.³⁷ The stressors connected with the COVID-19 pandemic can disturb parents' apparent sleep quality and daily energy levels, lowering their ability to respond to demanding or challenging experiences flexibly and promoting more reactive and inflexible responses.³⁸ One review proposed to investigate the use of mindfulness in the scope of behavioral analysis as a tool to support parents through the current crisis and throughout parenthood.

Conclusion

Any crisis can negatively affect our mind and body, but managing stress can ease the body and mind. Mindfulness-based intervention can offer a helpful way to handle any situation, so mindfulness can significantly reduce the level of stress during COVID-19 and thus improve our immunity. Mindfulness skills and practice also help reduce our stress, fear, and anxiety and improve our sleep and mental health. Mindfulness can be practiced by anyone at any time or place and have a definite positive impact on our mental health, such as reducing mental health symptoms and regulating emotion and behavior.

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Conflicts of interest

None.

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