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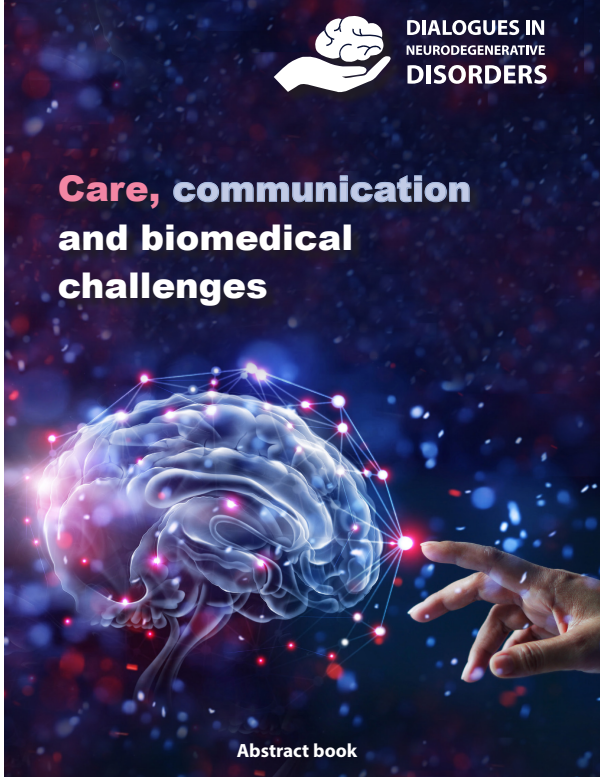

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The Impact of Mindfulness Interventions on Parkinson's Disease in Asia: A Narrative Review

Author
CKW Gamage, WS Sudusinghe, D Vidanage, HMP Herath – General Sir John Kotelawala Defence University, Sri Lanka

Citation
CKW Gamage, WS Sudusinghe, D Vidanage, HMP Herath

Background
Parkinson's disease (PD) is a progressive neurodegenerative disorder, and it is commonly associated with a variety of cardinal motor symptoms including akinesia/ bradykinesia, tremor and rigidity. There are also additional motor deficits like gait disturbance, impaired handwriting, grip force and speech deficits. Furthermore, PD has many non-motor symptoms such as anxiety, depression, sleep disturbances and cognitive decline. All these disease symptoms can occur years before the main motor features become apparent.

Various studies prove that these symptoms have a serious effect on quality of life (QoL) in PD patients. The dopaminergic therapies considered as the first-line treatments as they adequately manage the psychological and nonmotor symptoms associated with PD. However, at present, complementary therapies such as mindfulness interventions (e.g., meditation, yoga, and mindfulness-based stress reduction [MBSR], etc) have been taken into consideration with their beneficial effects. This research delivers a narrative review of mindfulness interventions in PD patients from an Asian perspective

and a summary of the results of the latest studies on the effects of organizing information with readers about potential benefits and applications.

Methods

A thorough literature review was conducted on randomized controlled trials (RCTs) and feasibility studies which explored mindfulness therapies on PD in Asian populations. The search terms "Asia," "Mindfulness," and "Parkinson's disease" were used to find the studies while Hinari, Emerald Insight, PubMed, and Google Scholar were the used databases for the study. Studies which have evaluated QoL, psychological distress, and motor and nonmotor symptoms of PD patients were considered. The information such as study design, demographic variables, type of intervention, outcome measurements, and main key findings were the retrieved from the seven studies found through the vigorous search. Further, a comprehensive analysis was conducted on seven studies that reported various mindfulness-based techniques and their effects on the symptoms of PD among various populations.

Results

This review examined various mindfulness treatments (i.e., mindfulness meditation, yoga, and MBSR) that were carried out in various Asian nations out of the seven studies. It was found that these therapies were linked to a substantial improvement in both motor and nonmotor symptoms among PD patients. Further, it was noted that practicing mindfulness meditation improves emotional nonreactivity and lessens depression symptoms among PD patients. Subsequently, Mindfulness Yoga therapies led to substantial improvements in motor dysfunction, disease-specific health-related quality of life (HRQoL), equanimity, depression, anxiety, and perceived stress. Also, a feasibility study carried out during the COVID-19 pandemic using mHealth-delivered mindfulness yoga found high adherence rates and notable improvements in HRQoL and mental health were found. Furthermore, complicated exercise programs based on mindfulness meditation substantially improved both motor and nonmotor symptoms. Overall QoL was markedly enhanced by MBSR, especially in terms of social support.

Discussion

The reviewed literature has consistently shown that mindfulness therapies can considerably reduce motor and nonmotor symptoms in individuals with PD. These interventions include meditation, yoga, and mindfulness-based stress reduction, or MBSR. Significant improvements were noted in QoL, emotional well-being, cognitive abilities, and psychological discomfort (depression and anxiety, etc.).

Emotional nonreactivity is improved, and depression symptoms are lessened when mindfulness meditation is practiced. Yoga therapies led to significant improvements in motor dysfunction as well as depression, anxiety, equanimity, perceived difficulty, and disease specific HRQoL. The potential for mHealth-delivered mindfulness interventions—which have high rates of compliance and significantly enhance mental health and HRQoL—was highlighted by feasibility research conducted during the COVID-19 pandemic.

Complex exercise programs based on mindfulness meditation have been linked to significant enhancements in nonmotor symptoms (such as anxiety, depression, cognitive function, sleep disruption, QoL, and activities of daily living) as well as motor symptoms (such as muscular strength, endurance, and balance). MBSR had a particularly noteworthy effect on increasing social support and overall QoL.

The results of the current study imply that there are significant advantages in incorporating mindfulness techniques to PD therapy especially in terms of improving resilience and treating psycho-cognitive comorbidities. However, longitudinal studies which consist of larger populations are required in order to confirm these results and improve intervention strategies. Further these studies can be expanded in the search of other mindfulness-based therapies, such as mindfulness-based cognitive therapy (MBCT) and mindfulness-based art therapy (MBAT), despite these encouraging findings on MBSR. In the global context of research, MBCT is found to be a successful treatment for depression that avoids recurrence by combining mindfulness techniques with the concepts of cognitive therapy. Considering the higher rates of

depression among PD patients as per the previous studies, MBCT could be really helpful in controlling psychological symptoms of the PD patients and further enhancing the QoL among them.

Similarly, the MBAT, which combines mindfulness practices with creative artmaking, could provide a novel approach to enhancing emotional expression, reducing stress, and improving cognitive functions in PD patients. Exploring these and other mindfulness-based interventions could provide a broader understanding of the potential therapeutic benefits for PD patients and help tailor individualized treatment approaches.

Conclusion

In Asian cultures, mindfulness techniques show promise as useful adjunctive treatments for PD management. They provide significant advantages in lowering psychological distress, addressing both motor and nonmotor symptoms, and increasing general QoL. Larger, longer-term studies should be the focus of future research to confirm these results and improve intervention strategies. Incorporating mindfulness techniques into routine PD treatment may greatly enhance patient outcomes and overall wellbeing.