

The Effect of Mindfulness-Based Interventions for Individuals with Tourette Syndrome: A Scoping Review

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Abstract : Introduction: Tics, characterized by repetitive, sudden, non-voluntary motor movements or vocalizations, are prevalent in chronic tic disorder (CT) and Tourette Syndrome (TS). These neurodevelopmental disorders often coexist with various psychiatric conditions, leading to challenges and reduced quality of life. While medication in conjunction with behavioral interventions, such as Habit Reversal Training (HRT), Exposure Response Prevention (ERP), and Comprehensive Behavioral Intervention for Tics (CBIT), has shown efficacy, a significant proportion of patients experience persistent tics. Thus, innovative treatment approaches are necessary to improve therapeutic outcomes, such as mindfulness-based approaches. Nonetheless, the effectiveness of mindfulness-based interventions in the context of CT and TS remains understudied. Objective: The objective of this scoping review is to provide an overview of the current state of research on mindfulness-based interventions for CT and TS, identify knowledge and evidence gaps, discuss the effectiveness of mindfulness-based interventions with other treatment options, and discuss implications for clinical practice and policy development. Method: Using guidelines from Peters (2020) and the PRISMA-ScR, a scoping review was conducted. Multiple electronic databases were searched from inception until June 2023, including MEDLINE, EMBASE, PsychInfo, Global Health, PubMed, Web of Science, and Érudit. Inclusion criteria were applied to select relevant studies, and data extraction was independently performed by two reviewers. Results: Five papers were included in the study. Firstly, we found that mindfulness interventions were found to be effective in reducing anxiety and depression while enhancing overall well-being in individuals with tics. Furthermore, the review highlighted the potential role of mindfulness in enhancing functional connectivity within the Default Mode Network (DMN) as a compensatory function in TS patients. This suggests that mindfulness interventions may complement and support traditional therapeutic approaches, particularly HRT, by positively influencing brain networks associated with tic regulation and control. Conclusion: This scoping review contributes to the understanding of the effectiveness of mindfulness-based interventions in managing CT and TS. By identifying research gaps, this review can guide future investigations and interventions to improve outcomes for individuals with CT or TS. Overall, these findings emphasize the potential benefits of incorporating mindfulness-based interventions as a smaller subset within comprehensive treatment strategies. However, it is essential to acknowledge the limitations of this scoping review, such as the exclusion of a pre-established protocol and the limited number of studies available for inclusion. Further research and clinical exploration are necessary to better understand the specific mechanisms and optimal integration of mindfulness-based interventions with existing behavioral interventions for this population.

Keywords : scoping reviews, Tourette Syndrome, tics, mindfulness-based, therapy, intervention

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