

Music Therapy and Music-Based Interventions for Movement Disorders

Neurorehabilitation and Recovery (J Krakauer and T Kitago, Section Editors)

Published: 13 November 2019

Volume 19, article number 83, (2019) [Cite this article](#)

Kerry Devlin, Jumana T. Alshaikh & Alexander Pantelyat 

 11k Accesses  77 Citations  16 Altmetric  1 Mention [Explore all metrics](#) →

Abstract

Purpose of Review

There is emerging evidence that music therapy and other methods using music and rhythm may meaningfully improve a broad range of symptoms in neurological and non-neurological disorders. This review highlights the findings of recent studies utilizing music and rhythm-based interventions for gait impairment, other motor symptoms, and non-motor symptoms in Parkinson disease (PD) and other movement disorders. Limitations of current studies as well as future research directions are discussed.

Recent Findings

Multiple studies have demonstrated short-term benefits of rhythmic auditory stimulation on gait parameters including gait freezing in PD, with recent studies indicating that it may reduce falls. Demonstration of benefits for gait in both dopaminergic "on" and "off" states suggests that this intervention can be a valuable addition to the current armamentarium of PD therapies. There is also emerging evidence of motor and non-motor benefits from group dancing, singing, and instrumental music performance in PD. Preliminary evidence for music therapy and music-based interventions in movement disorders other than PD (such as Huntington disease, Tourette syndrome, and progressive supranuclear palsy) is limited but promising.

Summary

Music therapy and other music and rhythm-based interventions may offer a range of symptomatic benefits to patients with PD and other movement disorders. Studies investigating the potential mechanisms of music's effects and well-controlled multicenter trials of these interventions are urgently needed.