

FEEL THE RHYTHM

Music Therapy & Parkinson's



Written By:

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Do you recognize the following lyrics?



Where it began, I can't begin to know when but then I know it's growing strong. Was in the spring and spring became the summer. Who'd have believed you'd come along.



Did you guess Sweet Caroline by Neil Diamond? If you did, you're correct! Now that you know the song title, can you hear the beat of the chorus or remember the rest of the lyrics? Maybe you're thinking of a memory tied to that song or feeling cheerful? These reactions are brought upon by music, which has the ability to connect individuals. Music is a powerful tool to help with our wellbeing, including our physical and mental health. It can reduce anxiety and stress, elevate our moods, assist in pain management, improve quality of sleep, and assist with memory and cognition (NorthShore University Health System, 2020). For those living with Parkinson disease or Parkinson's Plus Syndromes, music can assist with balance, coordination, posture, vocal abilities, memory, and management of mood disorders. The following article, written by Andrea Curry, Certified Music Therapist (CMT) with JB Music Therapy, discusses the connection between Parkinson's and Music Therapy.

In recent years, music therapy has emerged as a transformative and powerful tool in the care and treatment of Parkinson disease. This therapeutic approach, leveraging the intricate blend of tempos, melodies, and rhythms, offers more than just emotional comfort; it has shown remarkable efficacy in alleviating physical symptoms and stabilizing mood fluctuations in individuals living with Parkinson disease.

What music therapists have identified is that the right music, played at the right time, assists the brain in appropriately producing or reducing various neurotransmitters crucial to human health and wellness. This includes dopamine, a key neurotransmitter whose levels decrease in Parkinson disease (PD). Music also activates mood-boosting and stabilizing neurotransmitters like serotonin, oxytocin, norepinephrine, and dopamine. Additionally, it is known to lower cortisol, a neurotransmitter responsible for anxiety.

To become a music therapist, one must complete a rigorous education followed by a comprehensive internship and a globally recognized exam, all regulated by the Canadian Association for Music Therapy (CAMT).

“Music therapy is a discipline in which Certified Music Therapists (MTAs) use music purposefully within therapeutic relationships to support development, health, and well-being. Music therapists use music safely and ethically to address human needs within cognitive, communicative, emotional, musical, physical, social, and spiritual domains.” – Canadian Association of Music Therapists

Music therapists use a combination of music-based and music-assisted therapy techniques, drawing upon extensive training and research. Numerous studies have revealed music's profound ability to activate several areas of the brain simultaneously, crucial for overall health and wellness. These interventions, which include gait training and pain management, support the motivation, mental health, and emotional well-being of patients and their support networks. Specific



rhythmic interventions target brain areas involved in timing, motion, attention, and reward. These can be tailored directly to a person to assist with gait and arm swing training. The Academy of Neurologic Music Therapy has developed some of these interventions, but music therapists also use other techniques to achieve these goals.

The University of Calgary is conducting trials and research on a new medical device that uses an iPod touch with somatic sensors and specifically tailored music to aid individuals with PD in their daily exercise and gait training. Clinicians overseeing the current trial report that the device is in a longer-term trial stage with five patients in Calgary. These patients are monitored monthly to adjust the settings and music preferences. The sensor integrated into the Ambulosono app is also being used to develop digital mobility charts, which are tools for interpreting data from mobility tests.

In current music therapy practice, music therapists apply various techniques to stimulate rhythmic movement, motivate patients, manage pain, and address symptoms of depression and anxiety. The research is ongoing and continually developing. As a music therapist currently working in hospitals and facilities around Calgary, I have witnessed firsthand the profound and direct impact of music on those dealing with this progressive disease.



References

Canadian Association of Music Therapists. (2023). *About Music Therapy*. <https://www.musictherapy.ca>

NorthShore University Health System. (2020, December 31). *9 Health Benefits of Music*. <https://www.northshore.org/healthy-you/9-health-benefits-of-music/>