

Music Helps Movement, Mood in Parkinson's Patients
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June 20, 2000 -- Music. It does a body good. Physical therapy may help keep Parkinson's disease patients limber, but now researchers have found that music therapy may help them move faster -- and make them happier.

This is the first time that music therapy's effect on Parkinson's has been objectively studied, the Italian researchers say, and their results appear in the latest issue of the journal *Psychosomatic Medicine*.

Parkinson's disease is a progressive, incurable nervous system disease that is characterized by difficulties walking, moving, and by uncontrollable tremors. It's caused by a decrease in brain cells that create dopamine, a chemical that is important for regulating body movement. Often, improving patients' ability to move and walk can help improve their well-being.

Thirty-two Parkinson's patients with mild to moderate disability participated in the study. They were divided into two equal groups -- one group went through three months of weekly physical therapy sessions; the other had weekly music therapy sessions. The latter consisted of listening to music, creating it on instruments, and moving to it rhythmically.

The researchers noted that physical therapy improved stiffness -- but did not have a significant effect on overall daily performance. Music therapy did. Patients reported improved ability to do such tasks as cut food and get dressed, and said they were less likely to fall or experience the sudden freezing-up of muscles that occurs with Parkinson's. Also patients with Parkinson's sometimes have trouble initiating movement, and music therapy improved this problem -- possibly because of its rhythmical quality, the authors suggest.

But the patients' emotional response to the music could also have affected their ability to move, they say, by activating a particular pathway in the brain that is thought to help regulate some movements. But either way, the patients were happier when listening to music, and it increased their motivation.

Enrico Fazzini, MD, a neurologist at New York University Medical Center, says the effectiveness of music therapy is linked to what Parkinson's disease takes away from patients: their ability to move automatically -- for example, their ability to ride a bike without thinking about it. "[With Parkinson's] people have to bring walking [or biking] into their consciousness. ... They have to bring into consciousness what was previously unconscious. Anything that helps them do that will help them to move."

Music can do that, Fazzini says -- sometimes dramatically. "A lot of times Parkinson's patients can dance beautifully when they can't walk. I have people who can barely take a step, but they can dance. Because they bring the unconscious into the conscious."

In other words, they know where to put their feet because the music is giving them a cue: the beat. By the same token, he says, some Parkinson's patients walk better in soft sand than on firmer ground because they use the feeling of sinking as a prompt to raise their feet.

Fazzini, who also runs a Parkinson's web site, says many Parkinson's patients have to do without music therapy to help them with activities like walking, because of the need to take music with them. "A lot of times these people are older, and you want them to [be able to] hear what's going on," -- such as the approach of a car, he says.

Lucy Irizarry, a social worker for the National Parkinson's Foundation in Miami, Fla., is a big fan of music therapy. Twice a week she oversees 30 patients in a day care setting. She's convinced of the importance of music in their lives.

"It helps the patients use their voice," she says. "It also helps them socially and emotionally. The songs are the old ones. ... It stimulates them." And, she adds, it helps them to remember.