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Music Therapy & Parkinson's Disease Fact Sheet

Definition:

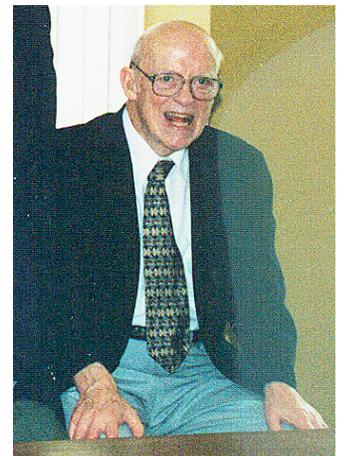
Caused by a brain disorder, Parkinson's Disease occurs when certain nerve cells (neurons), in a part of the brain called the substantia nigra, die or become impaired. Normally, these cells produce a vital chemical known as dopamine. Dopamine allows for smooth, coordinated function of the body's muscles and movement. When approximately 80% of the dopamine-producing cells are damaged, the symptoms of Parkinson disease appear.

Incidence: Parkinson disease affects both men and women in almost equal numbers. It shows no social, ethnic, economic or geographic boundaries. In the United States it is estimated that 60,000 new cases are diagnosed each year, joining the 1.5 million Americans who currently have Parkinson disease. While the condition usually develops after the age of 65, 15% of those diagnosed are under 50.

Characteristics and Need Areas:

The loss of dopamine production in the brain causes the primary symptoms of Parkinson disease.

- **COGNITIVE:** Developmental delay, functionally severe
- **SPEECH/COMMUNICATION:** Speech impairment, muffled speech
- **MOTOR SKILLS:**
 - Tremor (shaking)
 - Slowness of movement
 - Rigidity (stiffness)
 - Difficulty with balance
 - Shuffling walk
 - Small, cramped handwriting



Aster lived with Parkinson's Disease for 15 years. He participated in a music therapy research study on the effects of music on gait training.

- **SOCIAL:** Depression, reduced self-image, decreased socialization with friends and family

How can music therapy address the need areas for an individual with Parkinson's Disease?

SPEECH: Music therapy can be an effective modality for adults with Parkinson's Disease to develop speech and language skills in the areas of: expressive and receptive communication, choice-making, oral motor, sequencing, motor planning, answering questions, phonemic awareness, speech intelligibility and patterns of language. Rhythm-based exercises paired with words can enhance speech intelligibility. Co-treatment with speech therapists also enhances the effectiveness and rate of progress and aids in the generalization of skills from the music therapy session to other settings.

GOAL EXAMPLE for MOTOR SKILLS

By (date), given rhythmic cueing, Al will increase his range of motion (ROM) and walking stride by 50% for 3/4 opportunities with minimal prompting.

Baseline: Al currently shuffles when he walks and demonstrates a short walking stride.

COGNITIVE: Music can be used to improve memory organization and attention processing. For instance, songs from an individual's dating years may bring back memories and stimulate conversation.

MOTOR SKILLS: Music therapy can be effective in gait training by providing a steady, rhythmic structure to improve walking, gait, and stride abilities. Music, dancing and movement activities may improve walking endurance, improve range of motion, strength, functional hand movements and finger dexterity and improve limb coordination. For instance, using instruments (such as drums) can be a motivating way to purposefully improve hand use, cross midline, and reach high/low. Co-treatment with an occupational or physical therapist also may enhance the effectiveness of music therapy strategies.

SOCIAL: Music therapy can enhance and develop social interaction cooperation with family members and/or support staff and can help alleviate feelings of isolation and loneliness. Group activities can promote positive, successful experiences with music while interacting with others. Successful experiences lead to increased self-esteem and foster self-express and creativity.

RELATED RESEARCH:

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NATIONAL ORGANIZATIONS

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