

# DANCE AS INTEGRATIVE AND COMPLEMENTARY HEALTH PRACTICE FOR PEOPLE WITH PARKINSON'S DISEASE: EFFECTS OVER THE PRESENTATION OF APATHY

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## RESUMO

Parkinson Disease (PD) is a chronic neurodegenerative disease with a wide variety of motor and non-motor symptoms. Among the non-motor symptoms, apathy is one of the most prevalent neuropsychiatry alterations on people with PD, however is frequently neglected and/or confused with other symptoms on clinical practice. The Integrative and Complementary Health Practices (ICHP) are therapeutic activities that utilize different strategies than the pharmacologic ones, looking up to mitigation or prevention of a pathologic scenario. These practices can be used in addition to pharmacological therapy, in order to obtain better results. In that way, activities such as dance therapy can be used for people with PD aiming the attenuation of both motor and non-motor symptoms, including apathy (HASHIMOTO et al, 2015). On Health Psychology, we understand that the welfare of the human being needs an approach that involves the completeness of the biopsychosocial layers (STRAUB, 2005). Dance is a form of exercise that covers such layers. Furthermore, some dance genres were created on the streets and nowadays their practicability transcends dancing as a hobby and includes a form of artistic, cultural, ideological and political manifestation with objectives that can be pre-established, with proven results of its therapeutic benefits (MILLS and Daniluk, 2002; Koch et al., 2015). In other words, dance has an important role in society and should be studied and taught seriously, contemplating interdisciplinarity that add in these processes. Therefore, our aim was to investigate the occurrence of apathy in patients with PD and the effects of dance therapy over this important non-motor symptom of PD. This research was approved by the Ethics Committee, and all licenses and training were obtained for the application of the instruments applied. The study was performed at the Laboratory of Functional Rehabilitation Studies, in the Federal University of Pará. The sample consisted of 15 PD patients with mean age of  $61.6 \pm 11.1$  years and mean time since diagnosis of  $6.06 \pm 4.39$  years, under controlled pharmacological therapy. The averaged Unified Parkinson's Disease Rating Scale (UPDRS) score of the sample was  $58.8 \pm 12.5$ . For assessment of apathy presentation, we used the Apathy Scale (AS) before and after the dance therapy complementary intervention. The dance therapy program under *Baila Parkinson* method consisted of weekly sections of dance practice (twice a week / one hour per class) for six months with a wide variety of dance genres (classical dance, regional dance, ballroom dance, urban dances etc.). A multi-professional team (dance graduates, physical educators, physiotherapists, psychologist, occupational therapists, biologists, and physicians) planned the classes based on five work lines developed in order to approach the symptomatologic characteristics of PD: (1) Psycho-emotional, (2) Socialization, (3) Cognitive, (4) Motor and (5) Body Perception. The data were organized in sheets and analyzed using parametric statistics to check for possible differences between groups, with previous normality tests being performed. The significance interval observed was of minimum 95% ( $p < 0.05$ ) for the statistical tests (Student's t-test and Pearson Correlations). The results revealed a significant decrease on the occurrence of apathy after the dance therapy intervention ( $p = 0.0394$ ;  $r = 0.7581$ ). Under the Pearson Correlation Test, we didn't observe significance between AS and (1) age or (2) time since diagnosis. In other words, the patient presents the same

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probability of developing apathy regardless of the time he or she lives with PD. In addition, we observed that dance therapy helped to attenuate apathy in patients with PD, possibly due to its multiple systemic aspects, in addition to promoting interaction between research participants themselves. As limitations for this work, the small number of participants and the lack of additional clinical, imaging or neurochemical tests should be considered when interpreting the data. Nevertheless, our results corroborate previous studies reporting the effects of dance on decreasing the occurrence not only of apathy, but also of other non-motor symptoms of PD, such as depression and anxiety, in addition to improving quality of life (KALYANI et al, 2019). Thus, we observed that Dance can be used as ICHP in PD. HASHIMOTO, H. et al. Effects of Dance on Motor Functions, Cognitive Functions, and Mental Symptoms of Parkinson's Disease: A Quasi-Randomized Pilot Trial. **Complementary Therapies in Medicine**, v. 23, n. 2, p. 210-219, 2015. KALYANI, H. H. N. et al. Impacts of dance on cognition, psychological symptoms and quality of life in Parkinson's disease. **NeuroRehabilitation**, v. 45, n. 2, p. 273-283, 2019. Koch, S. C. et al. Fixing the mirrors: A feasibility study of the effects of dance movement therapy on young adults with autism spectrum disorder. **Autism**, v. 19, n. 3, p. 338-350, 2015. Mills, L. J.; Daniluk, J. C. Her body speaks: The experience of dance therapy for women survivors of child sexual abuse. **Journal of Counseling & Development** v. 80, n. 1, p. 77-85, 2002. STRAUB, R.O. **Psicologia da Saúde: Uma Abordagem Biopsicossocial**. Porto Alegre: Editora Artmed. p. 4-25, 2005.

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