Effects of Dance Movement Therapy (DMT) on cognition and balance in Parkinson’s Disease with emphasis on improvisational dance.

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Abstract. This study examined the effects of group-delivered improvisational Dance movement therapy classes on balance and cognition in people with Parkinson’s Disease. Methods: Ten Community dwelling adults (mean age 66 years old) with middle stage Parkinson’s disease completed a 10-week dance movement therapy series, that consisted of one 1.5-hour session per week, with an emphasis on improvisational dance. Pre- and post-intervention motor and cognitive assessment was completed. Pretesting was carried out approximately 2 weeks before the intervention and post-testing was completed approximately one week following the intervention. The balance and gait evaluation consisted of the Balance Evaluation Systems Test (BESTest)\(^1\) Two cognitive tests were employed: the Montreal Cognitive Assessment (MoCA\(^2\)), and the Scales for Outcomes in Parkinson’s disease-Cognition (SCOPA-Cog\(^3\)). We also administered the Test of Upper Limb Apraxia (TULIA\(^4\)), for the assessment of gesture production and the Reading the Mind in the Eyes task (RMET\(^5\)). All scores were analyzed using SPSS 24.0 (Chicago, IL, USA), and mapped using GraphPad Prism 6.0 (LaJolla, CA, USA). Due to the small sample size, pre- and post-intervention comparisons were made using Wilcoxon matched-pairs signed rank test. Statistical significance was determined at p ≤ 0.05. Results: Findings included a significant increase in the total score on the BEST as well as significant increase in the total score on the SCOPA test following the dance intervention (t = 2.575, p = 0.0299, pre-test = 56.7±3.73% vs. post-test = 62.2±4.43%). Conclusions: Dance movement therapy with an emphasis on improvisational dance resulted in functional gains in balance and cognition for people with Parkinson’s disease and merits further exploration.

Presenters: Joanabbey Sack, Tania Lazuk, Maura Fisher, Zuzana Sevcikova

Joanabbey Sack BC DMT RDT has extensive additional training in Laban Movement Analysis, Theatre Arts and Music. Currently P-T faculty in the Creative Arts Therapies Graduate at Concordia University and staff DMT at Concordia's Centre for the Arts in Human Development (since 1996). In 2007 co-founded/ ‘parkinsonenmouvement’ and continues research on dance and dance therapy with Parkinson’s.

Maura Fisher, Pt is a physiotherapist working at the Royal Victoria and Montreal Neurological Hospitals with an all-consuming passion for the treatment of neurological conditions. She is certified in LSVT BIG, a neuroplasticity-based rehabilitation approach for people with Parkinson’s.

Tetiana Lazuk, PhD, R-DMT is at present Scholar in Residence / Dance Movement Therapy at Concordia University. She worked as psychiatrist and psychotherapist in the Ukraine for more than 10 years prior to coming to Canada. She has a PhD in Psychiatry and has completed her training in Dance/Movement Therapy.

Zuzana Sevcikova, MA, BC-DMT, RDT holds an MA in Drama Therapy and is a DMT Alternate Route graduate. Zuzana works with students and teachers in elementary schools, leads
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