Faculty of Education, Health and Wellbeing

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Title: The effects of dance on the turning characteristics of patients with Parkinson's disease during the timed up and go test.

Background: Parkinson's disease (PD) is the second most prevalent neurodegenerative disease worldwide and, in developed countries, approximately 1% of the population over 65 years and 3-5% of people over 85 years, are affected by the disease. Together with drug therapy, research data indicate that regular practice of physical activity could promote improvements in the clinical and functional symptoms of people with PD. Recently many researches have been demonstrating that regular physical activity, such as dance, seems to improve functional mobility, motor symptoms, and consequently, quality of life.

Purpose: Therefore, the proposed control intervention trial, aims to analyse the effects of dance on the turning characteristics of patients with PD using three-dimensional (3D) analysis during the timed up and go (TUG) test.

Methods: You will be asked to participate for 3 months in one of the two groups of this experimental study. All participants will be allocated to one of the two groups. One group will participate in a Dance Project for 3 months, 2 times/week (1 instructor lecture session and 1 home session following a prepared video), 2 hours per week. The second group will not alter their personal lifestyle. At the testing sessions all participants will complete the Unified Parkinson's Disease Scale (a test involving simple movement tasks) and the Hoehn and Yahr (H&Y) scale to assess the extent of PD. You will complete the timed up and go (TUG) test whilst wearing a 3D analysis suit. The TUG test involves sitting with arms held across the chest, standing up uncrossing the arms, walking for a distance of 3 meters, turning around and walking back to the chair, sitting-down and crossing the arms across the chest. They will do the TUG test twice: one at self-selected speed and the other at a fast speed. A chronometer will use to measure the total time of the test. Performance of the TUG test will recorded by sensors attached to full-body 3D motion capture suit and filmed with a video camera. You will be asked to complete the test sessions at the start of the study and 3 months later
You have been asked to take part because you are an adult with a formal diagnosis of Parkinson's disease. Unfortunately you cannot take part if you have had surgery in the past 3 months, have deep brain stimulation (DBS); have severe heart disease, uncontrolled hypertension, a heart attack in the past year, fitted with a pacemaker; had a stroke or other associated neurological diseases; insanity; prostheses in the lower limbs; are free from other conditions that affect ambulation (such as osteoarthritis, etc.)
There is a slight risk of musculo-skeletal injury when performing the dance intervention. However, to minimise that risk all classes will be structured and led by a qualified instructor. The potential benefits of taking part for those involved in the dance class is that dancing has been associated with positive benefits on movement and quality of life for people with PD. While there are no direct individual benefits of taking part for those not involved in the dance intervention, your taking part will add to the body if research on the effect sof dance on PD. Also you will be supplied with information about where to attend dance classes at the end of the study, should you wish to try them.

Confidentiality: All data will be strictly confidential and in line with the code of conduct of the University of Wolverhampton. All data will be recorded without names; a unique identifier code will be created to record the scores. The data that you will provide to us, will have your unique identifier code, date, sample number (1 or 2) on them and will eventually be destroyed. The only person with access to the data will be the principle investigators, i.e. Professor Matthew Wyon, Dr. Tina Smith and Dr. Aline Nogueira Haas, you data will be kept stored in security locked computers while the database will also

require a security code for access. Video footage will be downloaded to a password protected computer immediately after data collection and the original files deleted from the camera. You are free to withdraw from participating in this research and withdraw use of your data at any time without any negative pressure or consequences.

Please initial each box to confirm that:

1. You have read and understand the information sheet for the above study and have had opportunity to ask questions ☐
2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason. ☐
3. You have completed a PAR-Q and have been free from injury during the past 3 months. ☐

4. Do you consent to us contacting you as a later date about this project? ☐

Name of participant:_____

Signature of participant:_____

Date

If you require further information, please contact: Professor Matthew Wyon (University of Wolverhampton) **Telephone: 01902 323144 (9am-5pm), or email m.wyon@wlv.ac.uk.**