

Physical and social benefits of dance for Parkinson's: An interdisciplinary approach

Project team

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Background

By 2020, over 150,000 people aged over 60 in the UK will have Parkinson's disease (PD), with the ageing population set to increase the economic and social burden. Exercise may help to protect against PD, yet exercise programmes are often poorly attended or sustained; there is thus a need for more engaging forms of rehabilitation for PD. Moreover, the significant impact of psychological, emotional and social effects of PD is often overlooked. **This project will enable us to develop a new collaborative network to investigate the multidimensional benefits of dance for PD.**

Dance therapy has shown benefits for older adults both with and without dementia, and there is increasing recognition of its potential value for people with PD. More than just a form of physical exercise, dance also involves a number of other processes that can be beneficial for PD, including action observation and imitation, music and rhythm.

Previous studies of dance for PD have largely focused on physical outcomes (e.g., balance and mobility); however, people with PD can also have difficulties in understanding and interacting with others, resulting in social isolation. Dance may help to improve social interaction and communication as well as movement control. Moreover, dance offers a more engaging and enjoyable option than other forms of physical therapy, which is particularly important as motivation can be low in people with PD.

Additionally, the effects of specific elements of dance have not been directly compared in PD. While some aspects of dance (e.g., in ballet) can improve balance, posture and coordination, additional elements such as facial expressions and hand gestures (e.g. in classical Indian dance) may broaden the range of benefits.

Our long-term objective is to **inform the development of dance programmes to improve quality of life** in PD and other conditions (e.g., dementia), as well as in healthy ageing.

Methods and outcomes

We will conduct preparatory work for a larger study on dance for PD, using a variety of methods:

- 1. Organise and host a multidisciplinary workshop** to initiate a collaborative network for research on dance for PD, bringing together researchers, practitioners, patient representatives and others with an interest in the topic. We will also invite practitioners working with the elderly, to create links with healthy ageing and dementia.
- 2. Conduct a literature review** on cross-domain outcomes of dance therapy for PD and healthy ageing.
- 3. Engage people with PD** by arranging for a group to visit an art installation on dance and movement (<http://www.siobhandavies.com/whats-on/performance/siobhan-davies-dance-material-whitworth/>). This will stimulate discussion around the social and communicative benefits of dance, contributing patients' perspectives to the development of our research proposal.
- 4. Collect pilot data** from people with PD, measuring responses to different dance styles (e.g., ballet, classical Indian) using eye tracking and participant ratings (e.g., enjoyment).
- 5. Prepare a grant application** for further experimental work and a controlled trial to investigate physical, social and communicative outcomes of dance.