**Written Assignment Unit 7**

University of the People

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**Dancing the Blues Away: The Impact of Dance on Depression in Parkinson's Disease**

The study conducted by York University researchers explores the therapeutic potential of dance in improving the mental health of individuals diagnosed with Parkinson's disease (PD). Published in the Journal of Medical Internet Research, the research highlights how participation in dance classes can alleviate depression symptoms in individuals with PD, with findings validated through both self-reported questionnaires and MRI scans.

**Study Description and Participants**

The study involved 23 participants diagnosed with Parkinson's disease who were enrolled in the Sharing Dance Parkinson's program at Canada’s National Ballet School. An additional 11 healthy controls, primarily family members or caregivers, also participated. Over the course of eight months, the participants engaged in weekly dance classes that progressed in complexity, encompassing movements like pliés, waltzes, and interpretive choreography. Mood and depression levels were evaluated using the Geriatric Depression Scale before and after each class, and MRI scans were conducted to monitor neural changes.

**Findings and Conclusions**

The findings revealed significant and cumulative improvements in depression scores among participants over the study period. MRI scans identified a decrease in activity within the subcallosal cingulate gyrus (SCG), a brain region previously linked to depression. This reduced activity was associated with improvements in emotional regulation, as evidenced by decreased blood oxygen level-dependent (BOLD) signals in the SCG. These results suggest that dance positively impacts mood regulation, with notable implications for individuals managing Parkinson's disease.

While dance is not posited as a cure for Parkinson's disease, the study underscores its potential to enhance the quality of life for patients and their caregivers. Dance appears to deliver a dual benefit, engaging the brain's reward system through music and activating sensorimotor circuits through movement.

**Evaluation and Societal Impact**

The study offers a compelling perspective on how non-pharmacological interventions can improve mental health and overall well-being in patients with neurodegenerative disorders. Its integration of subjective self-reports and objective imaging techniques strengthens the validity of the findings.

However, there are limitations. The sample size is relatively small, and the study lacks diversity in terms of geographic and cultural representation, potentially limiting the generalisability of the results. Additionally, the absence of a long-term follow-up period makes it difficult to assess the durability of the observed benefits.

This research highlights the value of incorporating creative and movement-based therapies in healthcare, aligning with principles of neuroplasticity, which refer to the brain's ability to reorganise itself in response to activity and experience. The findings also resonate with concepts of psychosocial well-being, underscoring the importance of addressing mental and emotional health alongside physical symptoms in conditions like Parkinson's disease.

**Conclusion**

This study contributes to the growing body of evidence supporting holistic approaches to managing chronic illnesses. By demonstrating the efficacy of dance in reducing depression symptoms and improving brain function, the research reinforces the critical role of interdisciplinary therapies. These findings advocate for broader adoption of movement-based interventions, offering hope for improved quality of life for individuals with Parkinson’s disease and their families.

**References**

DeSouza, J., Bearss, K., Barnstaple, R., & Bar, R. (2024). Dancing the blues away: Benefits for depression in Parkinson’s disease. *Journal of Medical Internet Research*.

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