Exploring the Impact of Mobility-Related Treatments (Drug and Non-Pharmacological) on Independence and Wellbeing in Parkinson's Disease - A Qualitative Synthesis

Authors : Cameron Wilson, Megan Hanrahan, Katie Brittain, Riona McArdle, Alison Keogh, Lynn Rochester Abstract : Background: The loss of mobility and functional dependence is a significant marker in the progression of neurodegenerative diseases such as Parkinson's Disease (PD). Pharmacological, surgical, and therapeutic treatments are available that can help in the management and amelioration of PD symptoms; however, these only prolong more severe symptoms. Accordingly, ensuring people with PD can maintain independence and a healthy wellbeing are essential in establishing an effective treatment option for those afflicted. Existing literature reviews have examined experiences in engaging with PD treatment options and the impact of PD on independence and wellbeing. Although, the literature fails to explore the influence of treatment options on independence and wellbeing and therefore misses what people value in their treatment. This review is the first that synthesises the impact of mobility-related treatments on independence and wellbeing in people with PD and their carers, offering recommendations to clinical practice and provides a conceptual framework (in development) for future research and practice. Objectives: To explore the impact of mobility-related treatment (both pharmacological and non-pharmacological) on the independence and wellbeing of people with PD and their carers. To propose a conceptual framework to patients, carers and clinicians which captures the qualities people with PD value as part of their treatment. Methods: We performed a critical interpretive synthesis of qualitative evidence, searching six databases for reports that explored the impact of mobility-related treatments (both drug and non-pharmacological) on independence and wellbeing in Parkinson's Disease. The types of treatments included medication (Levodopa and Amantadine), dance classes, Deep-Brain Stimulation, aquatic therapies, physical rehabilitation, balance training and foetal transplantation. Data was extracted, and quality was assessed using an adapted version of the NICE Quality Appraisal Tool Appendix H before being synthesised according to the critical interpretive synthesis framework and meta-ethnography process. Results: From 2301 records, 28 were eligible. Experiences and impact of treatment pathway on independence and wellbeing was similar across all types of treatments and are described by five inter-related themes: (i) desire to maintain independence, (ii) treatment as a social experience during and after, (iii) medication to strengthen emotional health, (iv) recognising physical capacity and (v) emphasising the personal journey of Parkinson's treatments. Conclusion: There is a complex and inter-related experience and effect of PD treatments common across all types of treatment. The proposed conceptual framework (in development) provides patients, carers, and clinicians recommendations to personalise the delivery of PD treatment, thereby potentially improving adherence and effectiveness. This work is vital to disseminate as PD treatment transitions from subjective and clinically captured assessments to a more personalised process supplemented using wearable technology.

Keywords : parkinson's disease, medication, treatment, dance, review, healthcare, delivery, levodopa, social, emotional, psychological, personalised healthcare

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