



IMPACT OF HOPE AND OPTIMISM ON MENTAL WELL-BEING AMONG PATIENTS WITH PARKINSON'S DISEASE

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Abstract

Parkinson’s disease (PD) is a chronic neurodegenerative disorder that often leads to significant emotional and psychological challenges. Positive psychological constructs such as hope and optimism have been identified as protective factors that enhance mental well-being in individuals coping with chronic illness. This study examined the influence of hope and optimism on mental well-being among patients with Parkinson’s disease. A cross-sectional correlational design was employed with 150 adults diagnosed with idiopathic PD (Hoehn & Yahr stages I–III). Participants completed validated scales measuring hope (Adult Trait Hope Scale), optimism (Life Orientation Test–Revised), and mental well-being (WEMWBS), alongside clinical and demographic assessments. Data were analyzed using Pearson’s correlations and multiple regression analyses controlling for age, disease duration, and motor severity. Both hope and optimism showed significant positive correlations with life satisfaction and emotional well-being, and inverse relationships with depression, anxiety, and reduced quality of life ($p < 0.001$). Regression analysis revealed that hope ($\beta = 0.48$, $p < 0.001$) and optimism ($\beta = 0.31$, $p < 0.001$) independently predicted mental well-being, accounting for 49% of the variance (Adjusted $R^2 = 0.49$). Hope and optimism are key predictors of mental well-being in patients with Parkinson’s disease. Interventions that strengthen these psychological resources—such as mindfulness, cognitive-behavioral therapy, and resilience training—may substantially enhance emotional health and quality of life in PD care.

Keywords: Hope, Optimism, Mental Well-Being, Parkinson’s disease

Article Details:

Received on 14 Sept 2025

Accepted on 15 Oct 2025

Published on 17 Oct 2025

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INTRODUCTION

Hope and optimism are critical psychological constructs that play a substantial role in shaping mental well-being among patients with Parkinson's disease (PD). As a progressive neurodegenerative disorder characterized by motor dysfunctions and non-motor symptoms such as depression and anxiety, PD profoundly impacts quality of life (Gilani, 2025). Research has shown that patients who maintain higher levels of hope and dispositional optimism demonstrate better emotional adjustment, resilience, and engagement in treatment regimens (Carver & Scheier, 2014; Herlofson et al., 2018). These positive psychological resources serve as buffers against the emotional burden of chronic illness, fostering adaptive coping mechanisms and reducing psychological distress (Ahmed, 2024; Arif, 2025).

Empirical studies indicate that optimism correlates with lower depressive symptoms and enhanced perceived quality of life among PD patients (Schrag et al., 2000; Jones et al., 2020). Hope, conceptualized as a cognitive-motivational state that enables individuals to envision pathways toward desired goals, also contributes to maintaining motivation and adherence to therapy (Cheung & Lucas, 2014). This is particularly relevant in PD, where long-term management requires consistent medication use and participation in physical and cognitive rehabilitation. Hopeful thinking can thus mitigate feelings of helplessness and contribute to greater life satisfaction despite physical decline (Mickus et al., 2002).

Furthermore, neuropsychological evidence suggests that optimism and hope may exert physiological benefits by modulating stress-related neuroendocrine responses and enhancing dopaminergic activity—mechanisms crucial in PD pathology (van der Kolk et al., 2019; Millar et al., 2023). Interventions that cultivate these positive emotions, such as cognitive-behavioral therapy (CBT) and mindfulness-based approaches, have demonstrated efficacy in improving mood and overall mental well-being in PD populations (Calleo et al., 2015; Kua et al., 2021). Thus, integrating hope- and optimism-focused therapies into standard PD care may represent a valuable strategy for promoting psychological resilience and improving patients' quality of life. On the basis of previous studies, the following objective was formulated.

- To examine the extent to which hope and optimism influence mental well-being among patients with Parkinson's disease.

METHOD

Study Design

A cross-sectional correlational design was employed to examine the relationship between *hope*, *optimism*, and *mental well-being* among individuals diagnosed with Parkinson's disease (PD). This design allows for the identification of associations between psychological constructs without manipulation of variables, as used in similar PD psychological studies (Jones et al., 2023; Gallagher et al., 2020).

Participants

Participants include 150 adults diagnosed with idiopathic Parkinson's disease (Hoehn & Yahr stages I–III) recruited from neurology clinics and PD support groups. Inclusion criteria are:

1. Confirmed PD diagnosis ≥ 1 year.
2. Age between 45 and 80 years.
3. MMSE ≥ 24 to ensure adequate cognitive function.
4. Ability to read and understand English.

Exclusion criteria include other neurodegenerative diseases, severe psychiatric disorders, or recent deep brain stimulation (< 6 months).

Measures

- **Hope:** Assessed using the *Adult Trait Hope Scale* (Snyder et al., 1991), a 12-item instrument evaluating goal-directed energy and pathway thinking ($\alpha = 0.82$ in PD populations; Kleiman et al., 2020).

- **Optimism:** Measured by the *Life Orientation Test–Revised (LOT-R; Scheier et al., 1994)*. Higher scores indicate greater optimism.
- **Mental Well-being:** Evaluated using the *Warwick–Edinburgh Mental Well-Being Scale (WEMWBS; Tennant et al., 2007)*, capturing both hedonic and eudaimonic aspects of well-being.
- **Covariates:** Age (Demographic sheet), Disease duration (UPDRS-III), depression (Beck Depression Inventory), and anxiety (Beck Depression Inventory).

Procedure

Ethical approval was obtained from the institutional review board. Participants completed questionnaires either online or in person after informed consent. Data collection occurred over 3 months. Clinical data (UPDRS-III scores, disease stage) was verified from medical records. Data was analyzed using SPSS v29. Descriptive statistics summarized demographic and clinical characteristics. Pearson’s correlations assessed bivariate relationships. Multiple regression analyses examined the independent effects of hope and optimism on mental well-being, controlling for age, disease duration, anxiety and depression. All participants provided written informed consent. Confidentiality was maintained by anonymizing data. Participants experiencing distress were referred to appropriate psychological services.

RESULTS

TABLE 1: *RELATIONSHIP BETWEEN HOPE, OPTIMISM, AND MENTAL WELL-BEING INDICATORS IN PARKINSON’S DISEASE*

Variable	Mean (SD)	Correlation with Hope (r)	Correlation with Optimism (r)	p-values
Depression (BDI score)	22.4 (7.1)	-0.62	-0.54	< 0.001
Anxiety (BAI score)	15.8 (6.3)	-0.57	-0.49	< 0.001
Mental Well-Being (WEMWS)	42.6 (11.8)	-0.68	-0.61	< 0.001

This table demonstrates significant positive correlations between hope and optimism with various measures of mental well-being among patients with Parkinson’s disease. Both constructs were positively associated with mental well-being among PD patients.

TABLE 2: *REGRESSION ANALYSIS PREDICTING MENTAL WELL-BEING FROM HOPE AND OPTIMISM*

Predictor Variable	β (Standardized Coefficient)	SE	t-value	p-value	95% CI (LL-UL)
Hope	0.48	0.07	6.91	< 0.001	0.34 – 0.62
Optimism	0.31	0.08	4.01	< 0.001	0.15 – 0.47
Age	-0.12	0.06	-1.94	0.054	-0.24 – 0.00
Disease Duration	-0.19	0.07	-2.71	0.007	-0.33 – -0.05

Note: Adjusted $R^2 = 0.49$; $F(5, 144) = 29.11$, $p < 0.001$; Dependent variable: Mental Well-being
This regression model shows that both hope and optimism significantly predict higher mental well-being, even after controlling for age, disease duration, and motor symptom severity. Hope ($\beta = 0.48$) emerged as a stronger independent predictor than optimism ($\beta = 0.31$), suggesting that patients’ goal-oriented thinking and belief in personal agency may contribute more substantially to psychological adaptation in PD. The model explains nearly half of the variance in mental well-being, underlining the substantial influence of positive psychological traits.

DISCUSSION

Findings revealed that hope and optimism play a critical role in enhancing the mental well-being of patients with Parkinson’s disease (PD), serving as key psychological resources that buffer against depression, anxiety, and feelings of helplessness often associated with the illness. Studies

have shown that patients who maintain higher levels of hope and positive expectations demonstrate better coping mechanisms and overall life satisfaction (Matsuda et al., 2021). Optimism fosters adaptive cognitive and behavioral responses to chronic illness, reducing the psychological burden of progressive motor and cognitive impairments (Lyke & Standley, 2023). Moreover, interventions that promote hope, such as mindfulness-based therapies and resilience training, have been linked to improved emotional regulation and reduced stress levels in PD populations (Hsu et al., 2022; Schapira et al., 2023). These findings highlight the importance of integrating psychological well-being strategies alongside pharmacological treatments to improve quality of life outcomes.

Furthermore, empirical research indicates that optimism not only improves mood but also contributes to better health outcomes by enhancing motivation for rehabilitation and adherence to treatment regimens (Moyle et al., 2022; Kliez et al., 2022). Hope-centered interventions empower patients to find meaning and purpose despite the degenerative nature of PD, fostering emotional resilience and a sense of control (Sturge et al., 2023; Olsson et al., 2024). Positive psychological states have also been associated with neuroprotective effects, potentially slowing disease progression through reductions in chronic stress responses and inflammation (Gison et al., 2020). Collectively, these studies underscore the therapeutic value of cultivating optimism and hope, suggesting that psychosocial interventions addressing these traits should be integral to comprehensive Parkinson's care programs.

CONCLUSION

In conclusion, hope and optimism play a pivotal role in enhancing mental well-being among patients with Parkinson's disease by fostering resilience, improving coping mechanisms, and reducing psychological distress. Research consistently shows that individuals who maintain a hopeful and optimistic outlook experience lower levels of depression and anxiety, better quality of life, and greater adherence to treatment regimens. These positive psychological resources help patients reframe challenges, sustain motivation, and find meaning despite progressive symptoms. Therefore, integrating interventions that cultivate hope and optimism—such as positive psychology practices, supportive counseling, and social engagement—can significantly contribute to comprehensive Parkinson's care and improve overall emotional health outcomes.

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