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FEATURES OF ANXIETY–DEPRESSIVE DISORDERS IN PARKINSON'S DISEASE

Dinmukhammadiyeva Dilorom Rakhimjan kizi[1], Shadiyeva Soadat Ulmasovna[2]
Aymuratova Gulayim Raxatovna[3]

1 PhD of the department of Children's disease in family medicine, Tashkent State Medical University, Tashkent, Uzbekistan

2 PhD of the department of Paediatric subjects, Kimyo International University In Tashkent, Tashkent, Uzbekistan

3 6th course student of Tashkent State Medical University, Tashkent, Uzbekistan

Abstract: This article examines the prevalence and characteristics of anxiety and depressive disorders in Parkinson's disease. During the study, patients' psychological status was assessed using the Beck Depression Inventory and the Sheehan Anxiety Scale. The findings show that psychological disturbances—particularly depression and anxiety—are widespread among individuals with Parkinson's disease. These disorders adversely affect quality of life and are important to identify early for timely treatment.

Keywords: Parkinson's disease, depression, anxiety, Beck scale, Sheehan scale, psychological assessment, mental disorders

Introduction. Parkinson's disease (PD) is a chronic, progressive, neurodegenerative disorder of the central nervous system that is primarily characterized by motor dysfunctions such as tremor, rigidity, bradykinesia, and postural instability. However, beyond these motor impairments, non-motor symptoms—including psychiatric and cognitive disturbances—are increasingly recognized as critical determinants of patient outcomes and quality of life. Globally, the prevalence of PD is estimated at 1–3 cases per 1,000 individuals (0.1–0.3%), with incidence rising steeply in populations over the age of 60 [1–3]. In Uzbekistan, as in many other countries, the number of patients diagnosed with PD has been steadily increasing in recent years. According to the STADA Health Report 2023, Parkinson's disease is ranked among the most feared chronic illnesses in the country, with approximately 23% of citizens reporting anxiety about developing the condition [4]. Psychiatric comorbidities are common in PD and represent a major challenge for clinical management. Studies indicate that between 40–50% of patients experience depressive symptoms, while 30–40% develop clinically significant anxiety disorders [5,6]. These psychiatric manifestations not only worsen motor disability but also exacerbate functional decline, disrupt social activity, and reduce treatment adherence. Anxiety, in particular, has been shown to double the rate of disease progression in PD patients, while the prevalence of depression is 2.5 times higher than in age- and sex-matched individuals with other chronic disabling diseases. Furthermore, epidemiological data suggest that individuals with preexisting depression have a 3.24-fold increased risk of developing Parkinson's disease compared to the general population [7,8]. Although systematic investigations in Uzbekistan remain limited, an important study conducted in Samarkand that evaluated the quality of life in PD patients

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revealed that the average disease duration was 5.5 ± 2.1 years, underscoring the significant burden of the condition locally [9]. Such findings highlight the urgent need for comprehensive studies on the psychiatric dimensions of PD within the Uzbek population. Traditionally, therapeutic approaches to PD have been motor-centric, focusing on dopaminergic replacement strategies and neurosurgical interventions such as deep brain stimulation. However, evidence now demonstrates that psychological disorders—including anxiety and depression—may appear in the prodromal phase, often preceding the motor manifestations of the disease by several years [12–14]. This suggests that psychiatric symptoms may represent early biomarkers of PD and could serve as valuable targets for early detection and preventive interventions. The consequences of untreated psychiatric comorbidities in PD are profound. They lead to decreased independence in activities of daily living, impaired interpersonal relationships, reduced social participation, and overall deterioration in health-related quality of life. Importantly, the presence of anxiety and depression has been associated with poorer response to pharmacological treatment of motor symptoms and increased caregiver burden. Therefore, modern management of PD must integrate not only motor but also non-motor symptom control, emphasizing a holistic and patient-centered therapeutic strategy [15]. Given its dual neurological and psychiatric nature, Parkinson's disease sits at the intersection of neurology and psychiatry, requiring multidisciplinary collaboration among neurologists, psychiatrists, psychologists, and rehabilitation specialists. Such an integrated approach allows for the development of novel therapeutic frameworks, combining pharmacotherapy, psychotherapy, and lifestyle interventions, aimed at improving both motor and non-motor outcomes in PD patients.

Study Objective. The primary aim was to determine the frequency and severity of anxiety and depressive disorders in patients with PD, using the Beck Depression Inventory (BDI) and Shikhov's Reactive and Trait Anxiety Scale (based on the Spielberger–Hanin method), and to evaluate patients' psychological status objectively. The study sought to characterize clinical features of anxiety and depression, analyze their interrelationship, and assess their impact on PD course. An anonymous survey was also conducted to generate practice-oriented recommendations.

Materials and Methods. Twelve patients with PD participated (8 women, 4 men), aged 43–65 years. All were enrolled based on a neurological diagnosis and completed psychological assessment tests. Beck Depression Inventory (BDI) — to determine the severity of depressive symptoms. The 21-item scale assesses specific dimensions (e.g., low mood, hopelessness, low self-esteem, sleep problems). Total scores reflect depression severity: 0–13: minimal depression, 14–19: mild depression, 20–28: moderate depression, 29–63: severe depression. The BDI is widely used to detect depression, rate its severity, and guide treatment planning [16,17]. Shikhov's Reactive and Trait Anxiety Scale (based on the Spielberger–Hanin STAI) — to measure state (situational) and trait (enduring) anxiety. Data were processed statistically using means, variance, and correlation coefficients. The test contains 35 items designed to probe mental state, difficulties, and stress responses [18–21]. Patients respond to items related to anxiety, fear, mood changes, self-esteem, emotional stability, and other psychological states. Results and Discussion. Depression (BDI): Distribution of BDI scores among PD patients: 0–9 (no depressive symptoms): 16.7%. 10–15 (mild/subdepressive): 25%. 20–29 (overt depression): 33.3%. 30–63 (severe depression): 25%. Overall, 83.3% of patients exhibited some level of depressive symptoms, and 58.3% had moderate to severe depression. These findings emphasize

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that PD significantly disrupts not only motor activity but also mental health. Anxiety (Shikhov / Spielberger–Hanin-based):
The scale differentiates three levels: no clinically significant anxiety, clinically significant anxiety, and severe anxiety. Results: 0–30 (not clinically significant): 50%, 30–80 (clinically significant): 33.3%, ≥80 (severe anxiety): 16.7%. Thus, half of the patients showed no clinically significant anxiety, while the remaining 50% did—of whom 16.7% had severe anxiety. These data reinforce the need for targeted psychological and psychocorrectional interventions and for managing PD as a condition with both neurological and psychiatric dimensions.

Conclusion. This study demonstrates that emotional–mental disorders—especially depression and anxiety—are common among patients with PD. In our sample, 50% had overt depression and 50% had clinically significant anxiety. The occurrence was 100% in men and 50% in women. BDI outcomes: 16.7%: no depressive symptoms, 25%: mild depression, 33.3%: moderate/overt depression, 25%: severe depression. Anxiety outcomes (Shikhov / Spielberger–Hanin-based): 50%: not clinically significant, 33.3%: clinically significant, 16.7%: severe. These findings show that beyond motor impairments, PD is frequently accompanied by psychiatric disorders that markedly worsen quality of life and attitudes toward treatment. It is therefore crucial to integrate psychological assessment and care into comprehensive PD management. Early identification of depressive and anxiety symptoms—with psychocorrectional and psychotherapeutic measures—plays a key role in improving overall health. Routine psychological screening: Regularly assess depression and anxiety using the Beck and Shikhov (Spielberger–Hanin) scales in patients receiving PD care [22]. Psychotherapy: Offer individual and group psychotherapy to patients with identified depressive/anxiety symptoms to stabilize mental state. Enhanced psychoneurological approach: Combine neurological management with psychopharmacology (antidepressants, anxiolytics) and psychocorrectional methods as part of an integrated plan [23,24]. Training healthcare staff: Provide brief trainings for physicians and nurses on early recognition and management of psychiatric comorbidities in PD [25]. Family involvement: Educate relatives and engage them in creating a supportive environment that facilitates coping and treatment adherence.

Conclusion. This study demonstrates that emotional and mental disorders—particularly depression and anxiety—are highly prevalent among patients with Parkinson's disease (PD). In our sample, 50% of participants exhibited overt depressive symptoms, and 50% showed clinically significant anxiety. The occurrence was higher in men (100%) than in women (50%). According to Beck Depression Inventory (BDI) results, 16.7% of patients showed no depressive symptoms, 25% had mild depression, 33.3% moderate depression, and 25% severe depression. Anxiety assessment based on the Shikhov (Spielberger–Hanin) scales revealed that 50% of patients had no clinically significant anxiety, 33.3% exhibited clinically significant symptoms, and 16.7% presented severe anxiety. These findings highlight that beyond the hallmark motor impairments, Parkinson's disease is frequently accompanied by psychiatric comorbidities that substantially reduce quality of life, impair coping capacity, and negatively influence adherence to treatment. Therefore, comprehensive PD management should integrate systematic psychological assessment and individualized mental health care. Early detection of depressive and anxiety symptoms through validated screening tools—such as the Beck and Shikhov (Spielberger–Hanin) scales—should be implemented as a routine practice in neurological clinics. Psychocorrectional and psychotherapeutic interventions, both individual and group-based, are

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essential for stabilizing the patient's emotional state. A combined psychoneurological approach, incorporating targeted psychopharmacological therapy (antidepressants and anxiolytics) alongside psychosocial support, ensures optimal clinical outcomes. Additionally, continuous education of healthcare professionals on the recognition and management of psychiatric comorbidities in PD is necessary to improve early intervention. Family members should be actively involved in the care process to create

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