

Ethics committee approval: CAAE: 76176023.6.0000.5345.

Registration: Not applicable.

<https://doi.org/10.1016/j.bjpt.2025.101436>

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PREVALENCE OF PARKINSONISM IN PATIENTS WITH BIPOLAR DISORDER

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Background: The human movement represents a fundamental connection between neurology and psychiatry. Movement disorders are common in psychiatry and share networks between the basal ganglia and the cerebral cortex. Bipolar Disorder (BD) is characterized by episodes of depression and mania without an apparent cause. Idiopathic Parkinsonism in bipolar patients includes motor symptoms of Parkinson's Disease (PD). Many bipolar patients exhibit facial inexpressiveness, action tremors, rigidity, and reduced arm swing while walking, which characterizes bilateral and symmetrical Parkinsonism.

Objectives: To assess the occurrence of parkinsonism in individuals with BD.

Methods: A retrospective, descriptive, and cross-sectional study (N = 85) involving patients aged 51 to 86 years (mean age: 64.8 years), conducted over 10 months. The study included both male and female patients diagnosed with BD and presenting signs of parkinsonism, followed at a neurodementia outpatient clinic in a university hospital (GO) and a private neuropsychiatry service. Patients underwent medical and neuropsychological assessments, including evaluations of mania, cognitive dysfunction, quality of life in PD, and apraxias. Data were analyzed using SPSS Statistics.

Results: The highest prevalence of BD with parkinsonism was among women (73.4%); 53.8% of the sample exhibited some degree of dementia, either mild or moderate. Executive dysfunction was observed in 90% of patients, while 80% presented tremor, bradykinesia, rigidity, and apraxias. The prevalence of parkinsonism in women with BD suggests a genetic influence on motor and cognitive impairment, reinforcing the hypothesis of a neurodegenerative phenotype involving frontostriatal circuits. The high frequency of motor symptoms indicates an overlap with movement disorders, highlighting the importance of differential diagnosis.

Conclusion: This study provides a critical foundation for implementing rehabilitation strategies for patients with BD and signs of parkinsonism. The observed interrelation between psychiatric disorders and neurofunctional alterations underscores the need for integrated therapeutic approaches that address both psychiatric and motor aspects. The findings are crucial for guiding future research and clinical practices aimed at improving the quality of life and functionality of these patients.

Implications: Identifying the overlap between mood disorders and motor alterations reinforces the need for integrated therapeutic approaches, promoting a physiotherapeutic approach that considers both psychiatric and motor aspects.

Keywords: Bipolar Disorder, Parkinsonism, Motor Alterations

Conflict of interest: The authors declare no conflict of interest.

Funding: Not applicable.

Ethics committee approval: CAAE: 78901724.4.0000.5133.

Registration: Not applicable.

<https://doi.org/10.1016/j.bjpt.2025.101437>

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MOST: A TEST TO EVALUATE MOBILITY OVER STABILITY IN INDIVIDUALS WITH SPINOCEREBELLAR ATAXIA

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Background: An efficient postural control needs functional motor skills, such as mobility over stability, i.e., the ability to move parts of the body while maintaining a stable base of support. Spinocerebellar ataxia (SCA) is a condition in which postural instability is usually the first and most frequent symptom with a huge impact of independence. The instruments currently available to assess postural control are focused on tasks with static or dynamic postures. There are rare tests for mobility over stability such as the Functional Reach Test and some items of the Berg Balance Scale (BBS).

Objectives: This study proposes the Mobility Over Stability Test (MOST) to fill the gap in literature with a specific test for this functional motor skill.

Methods: MOST was composed by four tasks performed in standing position, with feet together, in this sequence: (1) looking up and down, (2) right and left, (3) upper limbs flexion, and (4) turning the trunk to look back at an object 1.5m behind the participant, both sides. In tasks 1, 2 and 4, the arms remain crossed over the trunk. Each block of tasks was repeated 3 times. Stability during the task's execution was assessed considering the level of postural displacement, recorded by an accelerometer attached to a smartphone fixed at L4-L5. The extent of instability was measured by counting how often the person lost balance, which was reflected in the number of times they required assistance from the evaluator to regain stability. This test was carried out with 31 individuals with SCA and 14 healthy individuals matched for gender, age, and body mass. Individuals with SCA were assessed using the Scale for the Assessment and Rating of Ataxia (SARA), Inventory of Non-Ataxia Signs (INAS) and BBS. The association between the data generated by MOST and the other instruments was evaluated.

Results: 31 participants with SCA were assessed. Of these, 21 did not need any additional support to complete the test, while 10 needed one or more touches. The maximum duration of the test was 35 seconds. There was no significant association between performance on the MOST and scores on the SARA, INAS and BBS instruments. Despite this, the correlations between the scores of the instruments and those of the MOST were strong. In the accelerometry analysis, individuals with SCA had a shorter test duration compared to controls, suggesting greater postural instability.

Conclusion: The MOST proved to be a quick-to-apply, easy-to-access and easy-to-use test. The data indicate that, although there is a difference in MOST performance between healthy people and people with SCA, the clinical and postural displacement variables did not significantly explain these differences. Studies with a larger sample size and greater variability in clinical presentations will be necessary to confirm the usefulness of the MOST.

Implications: These results indicate that MOST can be an important tool in assessing and monitoring the evolution of stability and the degree of imbalance in individuals with SCA, even in mild levels of ataxia severity, and can also be used to prescribe exercises.

Keywords: Spinocerebellar ataxia, Mobility over stability, Postural control, Balance

Conflict of interest: The authors declare no conflict of interest.

Funding: CAPES – Finance Code 001, FAPERJ and CNPq.

Ethics committee approval: CAAE: 74297023.4.0000.5504.

Registration: Not applicable.

<https://doi.org/10.1016/j.bjpt.2025.101438>