

# BALANCE IMPAIRMENT AND QUALITY OF LIFE IN MULTIPLE SCLEROSIS PATIENTS

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## Background and Aims

Multiple sclerosis (MS) is a chronic autoimmune disease of the central nervous system, often leading to impaired coordination, balance, and mobility. Balance dysfunction is a major risk factor for falls and reduced quality of life (QoL) in MS patients. This study aimed to assess the association between balance disorders and health-related QoL in individuals with relapsing-remitting MS.

## Methods

A cross-sectional study was conducted at the University Medical Centre Maribor from February to July 2022. Fifty-four MS patients (EDSS 0-6) were assessed using the Modified Mini-Balance Evaluation System Test (modified mini BESTest), Single Leg Stance Test (SLS), and MSQOL-54 questionnaire. Neurological impairment was evaluated using the Expanded Disability Status Scale (EDSS). Data were analyzed using Pearson and Spearman correlation coefficients.

## Results

The mean patient age was 46 years, with 71% being female. Most patients exhibited clinically significant balance impairments, confirmed by low scores on the modified mini BESTest (mean: 28/42) and SLS (<20 seconds). A significant positive correlation was found between modified mini BESTest scores and the physical component of QoL ( $p < 0.01$ ). EDSS scores negatively correlated with physical QoL ( $p < 0.01$ ). No significant correlation was observed between balance scores and the mental component of QoL.

## Conclusion

Clinically significant balance impairments were present in MS patients, negatively affecting their physical QoL. Balance training should be an integral part of rehabilitation to enhance mobility and independence. Further longitudinal research is needed to assess the impact of rehabilitation on balance and QoL over time.

**Keywords:** balance, disturbances;, quality, of, life;