

## Research Paper: The Relationship Between Balance and Activities of Daily Living With the Quality of Life of Patients With Relapsing-Remitting Multiple Sclerosis



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### ABSTRACT

**Objective** Multiple Sclerosis (MS) as a progressive disease has remarkable consequences on the patient's Quality of Life. According to the surveys, the Quality of Life in the people with MS is lower than the healthy people that is more prominent in physical, self-caring and daily performance activities. There are various reasons for this low Quality of Life such as lack of definitive treatment, relapsing-remitting periods, and unpredictable relapsing periods. Although, the effect of personal, social and economic factors on the Quality of Life has already been investigated, no study has been conducted in order to survey balance and activity of daily living on the Quality of Life in people with MS, Thus, the present study aims to investigate the relationship between balance and activity of daily living with the Quality of Life in this group of patients.

**Materials & Methods** This investigation is a cross-sectional study that 40 patients with the relapsing-remitting MS were selected by convenience sampling method in Isfahan City, Iran. The written consent was taken from all patients and their families. The demographic characteristics of the patients were kept private and the patients could leave the investigation whenever they wanted. The inclusion criteria were as follows: the patients' willingness to participate in the study, verification of relapsing-remitting MS diagnosis, the patients referred to Al-Zahra and Kashani hospitals, age range 20-40 years, minimum of two attacks during the last 24 months, scored less than 505 in Expanded Disability Status Scale (EDSS), affection to MS moderate type in terms of disability diversity and the disease signs, able to cooperate with the study by means of MMSE test. The exclusion criteria were as follows: Unwillingness to continue the study, participating in the similar studies during 3 months ago which affected their Quality of Life, balance or activity of daily living, visual or auditory deficits, recurrence of the disease or worsening the disability from moderate to severe, any simultaneous disorder like seizure. The assessment tools were Expanded Disability Status Scale (EDSS), Berg Balance Scale, Barthel index, and Quality of Life Questionnaire SF-36. The collected data was analyzed by Pearson correlation and regression analyses in SPSS 20.

**Results** There is a positive and significant relationship ( $P < 0.01$ ) between physical activity (66%), physical role functioning (98%), physical dimensional scale (93%), and the Quality of Life. There wasn't any significant relationship between balance and other Quality of Life components. Self-care has a positive and significant relationship with physical activity (60%), and physical dimensional scale (56%) components. In addition, there is a positive and significant relationship between physi-

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cal activity (75%), physical role functioning (45%) and physical dimensional scale (67%). However, there was not any significant relationship between self-care and daily performance with the other Quality of Life components.

**Conclusion** The results indicate that the balance and independence in the activities of daily living can predict the Quality of Life in the patients with MS. Accordingly, in the interventions done for rehabilitation of MS patients, important factors such as Quality of Life and daily living skills should be taken into account. It seems that the vestibular system rehabilitation and the instruction of activity of daily living can improve the physical dimension in the MS patients' lives.

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