

ORIGINAL RESEARCH

# Effects of Reflexology on Pain, Fatigue, and Quality of Life in Multiple Sclerosis Patients: A Clinical Study

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## ABSTRACT

**Context** • Multiple Sclerosis (MS), occupies the first row among the diseases which leads to loss of neurological ability without depending on a trauma in the adults. Reflexology is one of complementary therapies based on activating a body's power to recover itself by special hand techniques applied to feet and hands. Positive changes in spasticity, pain, fatigue, depression, cortisol levels, anxiety, and blood pressure levels have been observed in MS patients after reflexology.

**Objectives** • This study was conducted to determine the effect of reflexology on pain, fatigue and quality of life in MS patients.

**Design** • The study was conducted experimentally by taking pretest and repeated measurements on reflexology and control groups determined by simple randomization.

**Setting** • The study took place in the neurology clinics at two university hospitals in Turkey.

**Participants** • Potential participants were 685 patients at the clinics who had been diagnosed with MS 6 months at least prior to the study. Of that group, 66 patients were included in the study, 33 in the intervention group and 33 in the control group.

**Intervention** • Reflexology was applied on each patient in the intervention group for 3 sessions a week for 12 weeks, and weekly pain and fatigue and monthly quality of life were evaluated. No intervention was made to the control group. Both groups received routine treatment.

**Outcome Measures** • Measurements occurred at baseline, weekly and monthly throughout the trial, and postintervention. Pain and fatigue were evaluated weekly using a Visual Analogue Scale (VAS) and the Fatigue Severity Scale (FSS), respectively and quality of life was evaluated monthly using the Multiple Sclerosis Quality of Life-54 (MSQOL-54) scale.

**Results** • In the intervention group, significant decreases were observed in the pain scores from the seventh week and in the fatigue scores from the fifth week ( $P < .001$ ). In the assessment of quality of life, the combined physical health and combined mental health scores were found to be higher in the intervention group than in the control group ( $P < .001$ ).

**Conclusion** • The study indicates that reflexology can be used as a complementary and alternative therapy to reduce pain and fatigue and enhance quality of life in MS patients. (*Altern Ther Health Med.* 2021;27(5):14-22).

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## INTRODUCTION

Multiple Sclerosis (MS) is a chronic neurological disease caused by damage to the myelin-containing cells of the central nervous system, causing exacerbations and remissions in its course, resulting in physical, emotional, social, and

cognitive impairment.<sup>1-5</sup> The prevalence of the disease in Europe for the last 30 years has ranged from 17 to 216 in 100 000, and the incidence is 0.2-1 in 100 000.<sup>5</sup> MS is seen two times more in women than in men, and the age of onset is usually 20-40.<sup>6-9</sup> Muscle pain and fatigue are the most common symptoms in MS patients. Previous studies reported 27% of the patients described severe body pain<sup>10</sup> and 44% had difficulty in performing daily activities.<sup>11</sup> Fatigue is one of the most serious problems seen in patients (76-97%).<sup>11,12</sup>

Today, Complementary and Alternative Therapies (CATs) are widely used, most of which are non-invasive with few side effects. However, there is little scientific evidence regarding all CATs, and those methods could threaten health.<sup>13,14</sup> According to the literature, 33% to 80% of MS patients use CATs.<sup>15</sup> This rate was found to be 60% in the