LONG-LASTING AQUATIC EXERCISE THERAPY IMPROVES HEALTH-RELATED QUALITY OF LIFE AND MUSCLE STRENGTH IN WOMEN WITH FIBROMYALGIA

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Introduction: Patients with fibromyalgia (FM) present muscle pain, weakness and fatigue that may eventually lead to reduced physical activity and decreased health-related quality of life. The purpose of the present study was to evaluate the effects of 8 months of supervised exercise therapy in warm water on health-related quality of life and muscle strength in women with fibromyalgia.

Methods: Thirty women with fibromyalgia [mean ± SD] age 50.8 ± 8.7 (years); body mass index 27.7 ± 4.1 (kg/m²); duration of symptoms 19.8 ± 7.4 (years); number of tender points 17.0 ± 1.0; number of specific drugs 1.4 ± 0.8 (antidepressives, muscular relaxants and analgesics); were randomly assigned into 2 groups: an experimental group, performing 3 weekly sessions for 60 minutes of exercise therapy in warm water (n=15); and a control group, continuing their usual care and habitual leisure-time activities (n=15). Health related quality of life was evaluated using the Short Form 36 Questionnaire (SF-36). The SF-36 assesses eight dimensions: physical function, role physical problems, body pain, general health perception, vitality, social function, role emotional problems and mental health. The scale of each dimension runs from 0 (very poor) to 100 (very good). Maximal unilateral isokinetic strength was measured in the knee extensors and flexors in concentric and eccentric actions at the velocity of 60°/s. The data was examined by applying statistical tests for the analyses of variances.

Results: Patients in both groups were in similar condition at baseline. After 8 months of water exercise therapy, the experimental group showed improvements in physical function (16%; p=0.017), role physical problems (25%; p=0.045), body pain (58%; p=0.001), general health perception (33%; p=0.012), vitality (40%; p=0.001), role emotional problems (99%; p=0.03) and mental health (52%; p=0.025). The experimental group showed increments in maximal isokinetic strength of knee extensors at 60°/s in concentric muscle action (right leg: 30%, p=0.017; left leg: 18%, p=0.042) and knee flexors (right leg: 67%, p=0.021; left leg: 50%, p=0.007). Patients in the experimental group also improved maximal isokinetic strength at 60°/s in eccentric muscle action in knee extensors (right leg: 31%, p=0.001; left leg: 23%, p=0.048).

Conclusion: Long-lasting exercise therapy in warm water was effective to improve health-related quality of life (especially emotional problems, pain, mental health and vitality) and muscle strength in the lower limbs at low velocities.

Keywords: Water, Physical Therapy, Fibromyalgia

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