Aims. To determine the effects of an exercise intervention in perimenopausal women on body composition, cardiovascular response and physical fitness.

Methods. A total of 27 women from a healthcare centre of Granada with an age ranged 45-60 years participated in this pilot project. Fourteen (mean age 53.9 ± 4 years old) were randomly enrolled in a 9 weeks (60 min/session, 3 days/week) moderate-intensity exercise intervention based on aerobic and strength training completed with flexibility, balance-oriented, coordination and relaxation activities. We used standardized field-based fitness tests to assess cardiorespiratory fitness, upper and lower muscular strength, upper and lower flexibility and static and dynamic balance. Fatness was assessed by impedanciometry and anthropometry. We also measured resting heart rate and blood pressure. Non-parametric Wilcoxon test for paired samples was used.

Results. The exercise program performed decreased a 5% the body mass index, a 9% the waist circumference and an 8% the body fat percentage (all, P < 0.01). Despite we have observed an improved tendency in systolic (6.5%) as well as diastolic (3.5%) blood pressure after exercise; we cannot confirm this approach significantly (P = 0.08 and P = 0.05, respectively). Women improved a 7% their cardiorespiratory fitness (P < 0.05) and a 10% their lower-body muscular strength (P < 0.01). We have observed an improved tendency in static balance (15%) but it was not statistically significant (P = 0.08). Further research is needed in order to determine whether programmes of longer duration (>9 weeks) or higher frequency (>3 sessions/week) induce major improvements on upper muscular strength, dynamic balance and flexibility.

Conclusion. Overall, an exercise program for 9 weeks (3 sessions/week) significantly improved body composition, aerobic capacity and lower-body muscle strength in perimenopausal women. This is a pilot study that must be replicated and confirmed in higher sample size.

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Effects of an exercise intervention on health-related quality of life and optimism in middle aged women: The FLAMENCO project


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