Abstract

Introduction Currently there is a growing trend in the prevalence of overweight and obesity. This increased prevalence trend leads to an increase in the costs of health care. Objective The aim of the present study was to analyze the effects on physical fitness and bone mineral density through an intervention program of physical activity based on rhythmic and choreographic activities in an overweight and obese population. Method An 8-month physical activity based on rhythmic and choreographic activities was conducted in overweight and obese people. Thirty-four participants aged 50.43 ± 10.57 with a body mass index (BMI) 38.37 ± 4.82 took part in the physical activity program. This study assesses the effects of fitness, percentage of body fat and bone mineral density (BMD). Results After an 8-month physical activity intervention program based on rhythmic and choreographic activities, significant differences were found in: percentage of body fat (p = 0.004), aerobic capacity (p = 0.023), flexibility of the lower limbs (flexibility in the right leg p = 0.029 and left leg p = 0.002), balance (p < 0.001), strength in lower limbs (p = 0.003) and strength in upper limbs (p < 0.001). Besides that, significant differences were found in parameters related with BMD such as T-Score (p = 0.025) and Z-Score (p = 0.012), Bone Quality Index (BQI) (p = 0.026) and an increase in Broadband Ultrasound Attenuation (BUA) although not a statistically significant one (p = 0.939). Conclusions These findings suggest that a physical activity program based on rhythmic and choreographic activities can act as a preventive method of mobility and fragility, as well as preventing bone loss.

Keywords

Key words, Obesity, Overweight, Exercise, Health.