

The effect of concurrent aerobic and pilates training on body composition and glucose hemostasis on obese non-menopausal women

kimia poornoruz*,

The purpose of this study was to investigate two methods of aerobic exercise and Pilates simultaneously on body composition and glucose hemostasis in non-menopausal obese women. For this purpose, 28 obese women aged 40 to 50 years with a BMI of more than 30 volunteered to participate in this study. Subjects were randomly assigned to two groups of exercise and control. Descriptive characteristics including weight, waist to hip ratio, body mass index, body fat index, subcutaneous fat percentage and glucose homeostasis were measured. Subjects completed 12 weeks, 2 weekly 90-minute sessions of Pilates (40 minutes) and (30 minutes) aerobic exercise with an intensity of 55-80% of maximum heart rate, plus 10 minutes of warming and 10 minutes of cooling. . Before and after 12 weeks of training, the ed body composition and glucose hemostasis were measured. Data were analyzed by T-test, One-Way ANKOVA, Wilkeson and Umen Whitney and using SPSS-22 software, a significance level of 0.05 was considered The results showed a significant reduction in body composition such as body mass index($P=0/02$) , body fat percentage($P=0/0001$), waist to hip ratio, body fat index($P= 0/01$), muscle mass($p=0/93$). But in glucose homeostasis, serum glucose($P=0/44$) and insulin levels($P=0/55$), as well as insulin resistance index($P=0/67$), did not change significantly Finally, the results showed that aerobic and Pilates simultaneous exercises had a significant effect on body composition indices in non obese obese women. This research can be used as a guide for coaches to design exercise programs to improve the composition of obese women.

Keywords : body composition, glucose hemostasis, Pilates, aerobic

[Islamic Azad University, Rasht Branch - Thesis Database](#)

