

Nattanun Sampet 2013: Effects of Pilates Exercise and Aerobic Exercise on Abdominal Visceral Fat in Obese Women. Master of Science (Sports Science), Major Field: Sports Science, Faculty of Sports Science. Thesis Advisor: Assistance Professor Ratreer Ruangthai, Ed.D. 89 pages.

The objectives of this research were to study and compare the effects of pilates and aerobic exercises on the amount of abdominal visceral fat in obese women. The subjects were volunteer female personnel of Kasetsart University who had abdominal visceral fat exceeding 100 cm³ aged from 45 to 50 years, 24 subjects. The subjects were assigned to two experimental groups using simple random sampling with 12 subjects in each group. The first experimental group performed pilates training while the second experimental group performed a walking exercise. Subjects were trained 3 days/week for 8 weeks. All subjects were tested for abdominal visceral fat, body fat, trunk lean mass and waist circumference before exercise, and in the 4th and 8th weeks. The data were analyzed by an independent *t*-test and one-way analysis of variance with repeated measures.

The result showed that abdominal visceral fat, body fat, trunk lean mass and waist circumference at the 4th week of training were not significantly different between the two groups. However after 8 weeks of training, while the abdominal visceral fat, body fat and waist circumference were not significantly different between the two groups, the trunk lean mass was significantly different ($p < .05$). In addition, abdominal visceral fat and waist circumference was not significantly different but body fat and trunk lean mass were significantly different within the pilates group. On the other hand, abdominal visceral fat, body fat, and trunk lean mass were not significantly different within the walking exercise group.

Student's signature

Thesis Advisor's signature