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Tungs' Taichung MetroHarbor Hospital

Comparison of the Body Fat Percentage and Skeletal Muscle among Different Weight Hospital Staff in Pilates Training

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BACKGROUND

The hospital staff often work shifts, so it is difficult for them to develop the habit of regular exercise. According to the physical examination analysis of the staff of Tungs' Taichung MetroHarbor Hospital in 2019, it was found that there was 24.3% of the staff had a body mass index(BMI) value higher than 27. Therefore, the hospital employs professional fitness instructor to pilates training to help staff to reduce body fat and build muscle.

METHODS

The eight-week Pilates training program was conducted at the hospital, with 14 trainees classified into groups of normal weight and abnormal weight (BMI≧27). The training frequency is 4 times a week, and each training session is 60 minutes. Paired sample t test was used as the data analysis method to compare the difference in training effectiveness between groups with normal and abnormal body weight.

RESULTS

1. The "BMI" ($p<0.01$), "whole-body fat percentage"($p<0.01$), " trunk fat percentage" ($p<0.01$), "fat percentage of two wrists"($p<0.05$), "fat percentage of two feet" ($p<0.01$) and " body fat percentage"($p<0.01$) were statistically significant difference, among trainees with different bodyweight, and all the values in the post-test lower than the pre-test
2. The "whole-body skeletal muscle"($p<0.05$), "trunk skeletal muscle"($p<0.01$) and "skeletal muscle of two feet"($p<0.01$) were statistically significant difference, among trainees with different bodyweight, and all the values in the post-test higher than the pre-test.
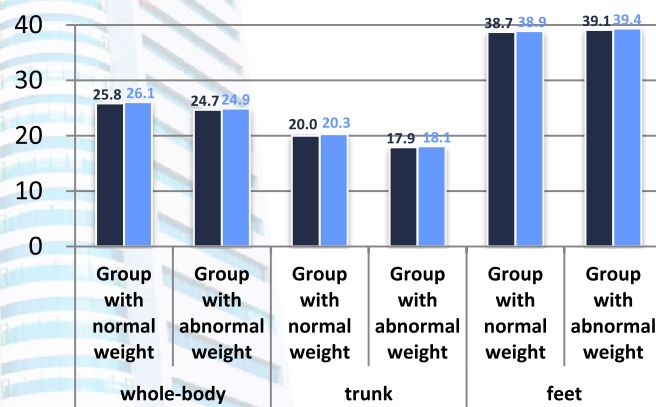

Comparison of the BMI and fat percentage
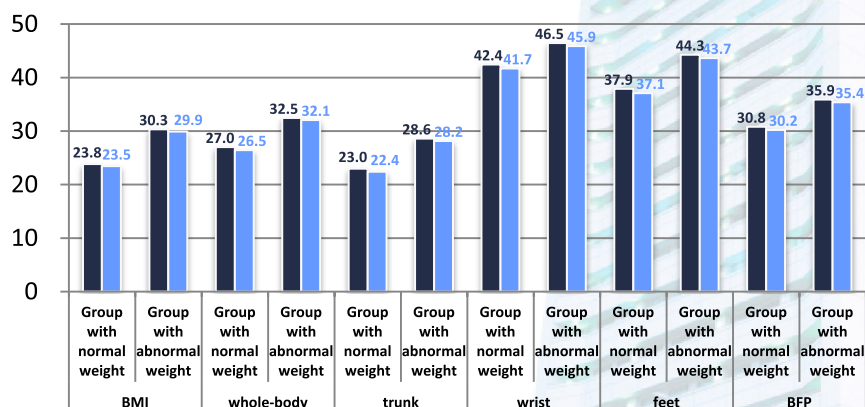
Comparison of the skeletal muscle

CONCLUSIONS

The hospital has demonstrated that the Pilates training program is effective in improving the BMI, body fat percentage and skeletal muscle in employees and that employees with normal weight are more likely to reduce body fat and increase skeletal muscle, thereby achieving body shaping. Therefore, it is suggested that the hospital should continue to offer workout programs to help employees maintain personal health condition, and build a friendly workplace that supports health promotion.

KEYWORDS

Pilates, Body Mass Index(BMI)