

THE INFLUENCE OF CHANGING LIFESTYLE IN OBESITY : "WEIGHT LOSS CHALLENGE" APPROACH

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Introduction

The primary objective of this study was to investigate the effects of programmed moderate intensity exercise and dietary regime on the reduction of body weight and body fat in obese people, as well as reducing cardiovascular risk factors. The advantage of nonpharmacologic "Weight Loss Challenge" approach in treatment of obesity is in joining groups according to the similarity of body weight (BW), health status, body shape and nutritional habits with aim to train and respect diet, with constant medical support.

Methods

Inclusion criteria for this pilot intervention study was $BMI \geq 30$. Measurements and tests conducted at the beginning and at the end of the program that lasted three months were: anthropometry, waist circumference, body composition, blood pressure (TA), ergospirometry, blood and biochemical analyses, three-day diet record, Beck Depression Inventory (BDI), Pittsburgh Sleep Quality Index (PSQI) and International Physical Activity Questionnaire (IPAQ). Three basic components were complied: 1) special diet regime using meal replacement, 2) nutrition education and workshops in club and 3) programmed moderate physical activity three times/week. Weekly control were conducted by physician.

Results

13 individuals (6 male and 7 female), aged 46.2 ± 12.0 yr had average BMI 36.6 ± 5.8 kg/m², mean BW 109.0 ± 24.9 kg and body fat percentage (F%) 38.2 ± 6.6 at the start of program. The most common comorbidity was metabolic syndrome (80%) and hypertension(50%). Half participants had PSQI category "poor sleepers". BDI at start registered moderate and severe depression in three patients. Average VO₂ max (21.6 ± 4.7 ml/kg/min) indicates a low oxygen consumption. All participants had insufficient or low levels of physical activity according to IPAQ. At the end of program there was a statistically significant difference ($p < 0.05$) for: body weight (106.5 ± 24.3 kg), BMI (35.6 ± 5.5), body fat mass (2.5 ± 21.1 kg), F% and fat mass in both arms. Systolic TA were significantly lowered for 21.8 ± 11.9 mmHg and diastolic for 20.7 ± 12.0 mmHg. Fat free mass did not change.

Discussion

The multidisciplinary program, which involves moderate physical activity, dietary regime with meal replacement, regular medical supervision and behavior modification lead to a greater reduction in BW without consequences on health status. Treatment caused a significant change in the body composition, morphological and nutritional status in obese people. This pilot study

requires further evaluation and follow-up data of additional participants resulting certain recommendations.

References

Lagerros YT, Rössner S. (2013) Therap Adv Gastroenterol. Jan; 6:77-88