

Summary

Introduction: Excessive body weight is a multifactorial phenomenon influenced by genetic, metabolic, hormonal, environmental, and psychosocial factors. An interdisciplinary approach to the problem of excessive body weight can significantly increase the chance of achieving satisfactory and lasting results.

Aim of the study: The primary objective of the study was to investigate the impact of an original nutritional and behavioral intervention method on changes in body composition and nutritional status in adults with excessive body weight and obesity.

Methodology: The study was conducted from 2018 to 2024 at a medical facility. In the first stage, participants were selected from 1416 patients who applied for dietary consultations. Ultimately, the study included 267 overweight or obese adults. The methodology was based on the use of the InBody270 body composition analyzer, which employs the bioelectrical impedance analysis (BIA) method. The results allowed for the determination of fat tissue content, muscle mass, visceral fat index, and other parameters. Additionally, the analysis included an original scientific research questionnaire based on the Health Behavior Inventory and the General Self-Efficacy Scale. Patients were covered by an individually tailored nutritional strategy, based on an original dietary and behavioral method with regular consultations and constant contact with a dietitian. The original strategy was based on product exchanges and allowed for flexible meal composition according to culinary preferences and incorporated psychodietetic techniques.

Results: Studies have demonstrated a statistically significant reduction in body weight, BMI, percentage of body fat, waist-to-hip ratio, and visceral fat levels following long-term nutritional and behavioral intervention. The effectiveness of the therapy was significantly associated with the presence of insulin resistance and hypertension. Additionally, the absence of comorbidities contributed to better therapeutic outcomes; however, 77.2% of patients experienced a rebound effect after the intervention ($p=0,0352$).

Conclusions: Long-term nutritional and behavioral intervention is effective in reducing body weight and improving body composition parameters, especially in patients without comorbidities. However, the yo-yo effect observed after the intervention highlights the need for ongoing support and monitoring of patients.

Keywords: obesity, overweight, reducing diet, body composition, diet therapy