## The Relationship of Weight Regain with Biochemical and Psychological Factors in Non Postmenopausal Women

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Abstract: Background and Aim: The rate of failure to maintain a reduced weight has been increased. By definition, people who regain about one-third to two-thirds of their lost weight after one year from the end of the dietary treatment and return all the lost weight after 5 years it is called weight regain. This study was performed to find the causes of weight regain and its relationship with biochemical and psychological factors. Materials and Methods: This cross-sectional study was performed by reviewing the files of people who followed the dietary treatment in 1397-1398.seventy-three persons was in the weight regain group, and seventy-three people were in the weight maintenance group. Psychological factors such as depression, anxiety, quality of life, physical activity, and dietary frequency were assessed through a questionnaire, and biochemical factors such as serum insulin and fasting blood sugar were measured. The mean basal energy in the weight regain group was significantly higher than the weight maintenance group (p = 0.004). There was no significant difference between the two groups in terms of food intake and inflammatory index of food. There was no significant difference between the two groups in terms of food intake and inflammatory index of food. Mean serum insulin concentration (p = 0.023), mean fasting blood sugar (p = 0.04) and insulin resistance (p = 0.013) in the weight regain group were higher than the weight maintenance group. The weight maintenance group showed higher insulin sensitivity than the weight regain group (p = 0.005). There was no significant difference between the two groups in terms of psychological indicators. Conclusion: The only body mass index after one year from the end of the treatment period, insulin sensitivity, serum insulin concentration, fasting blood sugar, insulin resistance, selenium intake, and basal energy expenditure Specific and significant with weight regain. However, the significance of insulin resistance, basal energy expenditure, and body mass index after one year from the end of the treatment period was higher than other variables in the weight regain group.

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