Abstract

Introduction and aim: Considering the importance of dietary diversity and sleep status in controlling and preventing chronic diseases, the present study aimed to compare sleep hours and dietary diversity with body mass index of type 2 diabetic patients.

Materials and Methods: This case-control study was conducted on 160 subjects (80 adult diabetes patients with a BMI over 25 and 80 adult diabetes patients with a BMI below 25). The 24-hour recall, sleep status and demographic questionnaires were used. Dietary diversity was calculated based on scoring five food groups using Food Guide Pyramid of the U.S. Department of Agriculture, and Kant method. Blood pressure and anthropometric measurements such as weight, height, waist, hip and wrist circumference were conducted and body mass index (BMI) was calculated. Biochemical data were obtained from patients' test sheets after sampling.

Results: The mean (± Standard deviation) of dietary diversity score in subjects with a BMI lower than 25 and in subjects with a BMI over 25 was (4.13 ± 0.92) and (3.96 ± 1.11), respectively; and statistically there was no significant difference between the two groups (P> 0.05). In two groups of subjects, the highest and the least dietary diversity score was seen in the dairy and meat, respectively. The higher dietary diversity score of cereals was associated with lower systolic blood pressure in subjects with a BMI less than 25 (p <0.05). There was a significant negative correlation between the total score of dietary diversity and TG in subjects with a BMI lower than 25 and a significant negative correlation was observed between dietary diversity score of vegetables with fasting blood glucose and cholesterol. There was no significant relationship between sleep status and body mass index (P> 0.05).

Conclusion: The mean of dietary diversity score among the studied diabetic patients was low. Therefore, the implementation of nutritional interventions to improve the dietary diversity of these patients with emphasis on increasing the consumption of whole grains, fruits and vegetables is recommended.

Key Words: Dietary Diversity, Sleep, Body Mass Index, Diabetes.