

#### DETERMINATION OF OBESITY RISKS, NUTRITION HABITS AND KNOWLEDGE LEVELS OF SIIRT UNIVERSITY HEALTH SCHOOL STUDENTS

SİİRT ÜNİVERSİTESİ SAĞLIK YÜKSEKOKULU ÖĞRENCİLERİNİN BESLENME ALIŞKANLIKLARI, BİLGİ DÜZEYLERİ VE OBEZİTE RİSKLERİNİN BELİRLENMESİ

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#### ABSTRACT

Nowadays, reasons such as deterioration of healthy eating habits, increasing the variety and accessibility of foods that contain food additives in order to increase shelf life and taste, increased consumption of ready-made foods and decreased physical activities pose important health risks. The studies carried out to give students a healthy eating habit, improve their knowledge of nutrition, reduce the risk of obesity and change their malnutrition habits are increasing their importance day by day. In our research we have done in this context; Demographic characteristics, body mass indexes, nutritional habits, nutritional knowledge levels and obesity risks of normal and evening education students who continue their education at Siirt University School of Health were determined. The data were collected with the help of a questionnaire using face to face interview technique. The obtained data was evaluated scientifically using IBM SPSS Statistics program. A total of 681 students participated in the survey, 369 women (54.2%) and 312 men (48.8%). The proportion of students who have taken any nutrition lessons throughout their education is (67%). Chronic illness exists in (10.4)% of students. The rate of students who use medicine constantly is 4.4%. Smoking and alcohol use are (21.1)% and (6)%, respectively. (24.2)% of students do not do any sports. (76.9)% of the students do not find the nutrition facilities on the university campus sufficient. (55.9)% of them have fast food eating habits. Students' Body Mass Indexes range from a min of 14.6 to a max of 34.13. According to the WHO grouping, (10.7)% of the students were evaluated as weak, (75.2)% as normal, (13)% as slightly obese, and (1.1)% as obese. According to the results of the research, it is recommended to provide nutrition education in all departments of the university in order to correct the malpractice habits of university students and provide them with a healthier lifestyle.

Keywords: Obesity, Nutrition, Knowledge Level, Body Mass Index.

# ÖZET

Günümüzde sağlıklı beslenme alışkanlıklarının bozulması, hazır gıdaların tüketiminin artması, raf ömrünü uzatmak ve lezzeti artırmak adına içerisinde gıda katkı maddesi bulunan yiyeceklerin çeşidinin ve ulaşılabilirliğinin artması ve bunlarla birlikte toplumda fiziksel aktivitelerin azalması gibi nedenler sağlık açısından önemli risk oluşturmaktadır. Öğrencilere sağlıklı beslenme alışkanlığı kazandırma, beslenme bilgi düzeyini geliştirme, obezite riskini azaltma ve hatalı beslenme alışkanlıklarını değiştirme amacıyla yapılan çalışmalar gün geçtikçe önemini artırmaktadır. Bu kapsamda yapmış olduğumuz araştırmada, Siirt Üniversitesi Sağlık Yüksekokulu'nda eğitim-öğretime devam eden normal ve ikinci öğretim öğrencilerinin demografik özellikleri, beden kütle indeksleri, beslenme alışkanlıkları, beslenme bilgi düzeyleri ve obezite riskleri belirlenmiştir. Veriler yüz yüze görüşme



tekniği kullanılarak anket formu yardımı ile toplanmıştır. Elde edilen veriler IBM SPSS Statistics programı kullanılarak bilimsel olarak değerlendirilmiştir. Ankete 369 kadın (%54,2), 312 erkek (%48,8) toplamda 681 öğrenci katılmıştır. Eğitim hayatı boyunca herhangi bir beslenme dersi almış olan öğrenci oranı (%67)'dir. Öğrencilerin (%10,4)'unda kronik bir hastalık bulunmaktadır. Sürekli ilaç kullanan öğrenci oranı (%4,4)'tür. Sigara ve alkol kullanımı sırayla (%21,1) ve (%6)'dır. Öğrencilerin (%24,2)'si hiç spor yapmamaktadır. Öğrencilerin (%76,9)'u üniversite kampüsündeki beslenme olanaklarını yeterli bulmamaktadır. Öğrencilerin (%55,9)'unda fast-food beslenme alışkanlığı vardır. Öğrencilerin Beden Kütle İndeksleri minumum 14,6 - maksimum 34,13 aralığındadır. DSÖ gruplandırılmasına göre öğrencilerin %(10,7)'si zayıf, %(75,2)'si normal, %(13)'ü hafif şişman, %(1,1)'si de obez olarak değerlendirilmiştir. Araştırma sonuçlarına göre, üniversite öğrencilerinin yanlış beslenme alışkanlıklarını düzeltmek ve daha sağlıklı bir yaşam tarzı sağlamak için üniversitelerin tüm bölümlerinde beslenme eğitimi verilmesi tavsiye edilmektedir.

Anahtar Kelimeler: Obezite, Beslenme, Bilgi Düzeyi, Vücut Kütle İndeksi.

## **1. INTRODUCTION**

Nutrition is a physical and behavioral science. It starts before birth and affects life until death. Therefore, it is one of the most crucial issues that should always be emphasized during life. Because nutrition is the most important factor affecting growth and development, giving health and vitality, and providing mental development (Baysal, 2004). Nutrition is one of the compulsory needs of people. While compulsory requirements such as housing and clothing are not needed in favorable climatic conditions, nutrition is the compulsory need of individuals to be met every day and in all conditions. Otherwise life cannot be continued (Baysal, 2015). Maslow emphasized that physiological needs constitute the lowest level of the hierarchy of needs, and other needs will not be needed unless these needs including nutrition are adequately met. There is very close relationship between eating habits and healthy lifestyle. Inadequate and unbalanced/malnutrition habits are risk factors for the formation of undesirable conditions such as obesity, extreme weakness, cardiovascular diseases, diabetes and hypertension. In order to be protected from these diseases and to increase the chance of living long; healthy, sufficient and balanced nutrition is required. In order to gain a good eating habit, individuals of every age, gender and profession should be trained about nutrition (Ozcelik, 2000). Obesity occurs when the energy received through the nutrients to the body is more than the energy spent, thereby paving the way for the formation of many diseases (type 2 diabetes, digestive and respiratory system diseases, sleep apnea, various types of cancer, etc.). According to the WHO assessment, 35% of heart diseases, 55% of hypertension disease and 80% of type 2 diabetes in adult individuals living in Europe are caused by obesity (Branca, et al., 2007). Health expenditures of countries are constantly increasing due to obesity and other diseases. University students are one of the risky groups with unhealthy nutrition. University students are the first group in the transition period to adulthood after childhood. With university education, a new era begins in students' feeding because they move away from the previous living environment, leave the family structure, are more influenced by external factors and can make their own decisions on many issues including eating and drinking preferences. In this period, besides adapting to a new order, economic balances and psychological factors create important differences in the nutrition of the individual. Changes in nutritional habits are generally reflected after the university. For this reason, the identification and regulation of university students' eating habits; It is very important in terms of preventing problems caused by unhealthy nutrition (Mazıcıoglu & Ozturk, 2003).

Especially in the previous researches about the nutritional habits of young people in our country, it is seen that very serious problems related to nutrition have been experienced in this period. In this study,



the nutritional habits, nutritional knowledge levels and obesity risks of Siirt University School of Health students were investigated.

## 2. METHODS AND MATERIALS

The universe of the research consists of students studying in the normal education and evening education (n = 1100) at Siirt University School of Health. In the research, sample selection was not made and the whole universe was tried to be reached. The data were collected from the Nursing Department and Occupational Health and Safety Department students who agreed to participate in the research. The questionnaire form applied within the scope of the research was revised and prepared by making use of research on similar topics (Yucel, B., 2015).

Data such as demographic characteristics of the students (age, gender, height, weight, etc.), nutritional habits and nutritional knowledge levels were collected from the students through a questionnaire applied face to face. By determining the height and weight data and body mass indexes of the students, it was determined in which category they belonged to the World Health Organization obesity grouping. The written permission required to conduct the research was obtained from the Directorate of Health School of Siirt University and the report of the ethics committee was obtained from the Siirt University Non-Interventional Clinical Research Ethics Committee (2020 / 01.01).

Students' consents were obtained by paying attention to the willingness/volunteering principle to participate in the research. The data obtained were evaluated scientifically using IBM SPSS Statistics program. Descriptive statistics were applied. Chi-square test was used to compare qualitative categorical data.

#### **3. RESULTS AND DISCUSSION**

Totally 681 students participated in the survey, 369 women (54.2%), 312 men (48.8%). The majority of the students (90.9%) are between the ages of 19-24. Body Mass Indexes of students are 14,6 - max 34, It is in the range of 13. According to the WHO grouping, 10.7% of the students were evaluated as weak, 75.2% as normal, 13% as slightly obese, and 1.1% as obese. In previous studies, it was stated that female students were weaker than male students (Ayhan, 2012; Garipagaoglu, 2012). The city where the students come to study for higher education was the city center with 82.7%, and the countryside with 17.3%. 33% of students did not take any nutritional lessons throughout their education life. 10.4% of students had a chronic disease. In the research conducted by Zemzemoglu et al, it was determined that 90.9% of the students did not have any diagnosed disease. The rate of diabetes, dental diseases, eye disorders and cardiovascular diseases was higher among male students than female students. The incidence of anemia was less. (Zemzemoglu, 2019). The rate of students who use drugs continuously was 4.4%. Smoking and alcohol using by students were 21.1% and 6%, respectively.

24.2% of students never do sports. 44.8% of the students doing sports said that they were doing sports to be healthy individuals. 77% of the students do not find the nutrition facilities at the university campus sufficient. Among students, 21.8% sleep 6 hours or less, 35.5% sleep 7 hours, 32.2% sleep 8 hours, 10.5% sleep 9 hours and more. 30.8% of the students thought that their current weight was excessive. There were 58% dormitories, 23.1% family members and 18.9% student houses among the places where students stay while studying at the university. 3.5% of students eat one meal, while 7.5% of the students consume more than three meals. The proportion of students who did not have regular breakfast was 45.9%. Garipagaoglu et al. (2012) stated that 46.2% of female students and 50.6% of male students skipped breakfast meals. They stated that 58.0% of the students preferred sleep to have



breakfast, 26.0% of them stated that they missed the breakfast meal because of the fear of catching up with the lesson and 12.0% of them did not have the breakfast habit (Garipagaoglu et al., 2012).

Students' meal skipping rate was 89.1% and the skipped meal was lunch with a maximum of 53.8%. The rate of students skipping breakfast was 37.9%. The rate of students who skip the evening meal was 8.2%. 36% of students state that they skipped meals because they could not find an opportunity. In the study of Onurlubas et al., It was determined that 96.6% of the students consumed any food or drink between meals and 3.4% never consumed snacks. (Onurlubas et al., 2015). Tozun et al. reported that 40.1% of students skipped the breakfast, 44.6% skipped lunch and 2.6% skipped the evening meal. (Tozun et al., 2017). 42.1% of the students eat their lunch at the university refectory. 48% of the students who eat at the university refectory do not find the food provided satisfying. 55.9% of students have fast food eating habits. The students who had fast-food eating habits (50.4%) said that the food offered was preferred because it was appealed to the taste buds. The rate of students who consume food and drink late at night (between 22.00-03.59) was (82.5%). The most preferred beverage among meals were tea/coffee with 67.3%.

Students (20.3%) consume less than 1 liter of water per day. The students (47.6%) state that they eat less than ever when they are sad and tired, and that (39.2%) eats more and more often than ever when they are happy and excited. Students (62.7%) choose to eat. 71.9% taste is among the reasons for choosing food. Among the type of selected dishes, the highest preference rate was meat and meat dishes with 59.4%. Then comes 14.7% vegetable and vegetable dishes, 8% pastry foods, 7.2% pasta and rice, 4.7% olive oil dishes, 3.3% legumes, 2.7% milk and milk group foods.Students (95.6%) knew the definition of adequate and balanced nutrition. However, (83.6%) did not know the four leaf clover, which is the symbol of adequate and balanced nutrition.Students (44.9%) thought that bread and cereals are definitely one of the food groups that should be consumed very little, (18.8%) think that fats should be consumed abundantly because they are necessary for the use of fat-soluble vitamins and the production of some hormones. Students (15.9%) did not know that the body's energy needs are met primarily from carbohydrates. 55.8% of students think that fruits are a good source of protein, iron, vitamin B12 and zinc, 5.4% of students think that the protein quality of the egg is the lowest, 57.9% of students think that to increase their daily intake of pulp legumes should be consumed at least 2 times a week.

The students (24.8%) know that the top floor of the nutrition pyramid is fat-sugar, and 20.7% of students know that, 1 grams of protein, 1 gram of fat and 1 gram of carbohydrate breakdown give 4 calorie, 9 calorie and 4 calorie energy respectively. 44.4% of the students know the BMI formula is kg / m2, 71.1% of the them know the BMI value in the diagnosis of obesity, 51.1% of the students also familiar with the recommended meal order for diabetes patients, 53.8% of the students did not know the definition of glycemic index, 30.7% of students know the content and benefits of breast milk.

The food and beverage consumption rate (82.5%) was found to be very high in the late night (between 22.00-03.59). Since both metabolism and physical activities will slow down during these hours, the foods that are eaten cannot be burned enough in our body and accordingly, indigestion and weight gain will increase. As a result, the risk of reflux will increase. We know that the main reason for reflux is the late eating habit. It was determined that approximately 1/3 of the students did not take any nutrition lessons during their education. However, when the nutrition knowledge levels of the students are examined, it is seen that approximately half of them have wrong information about healthy nutrition. Relevant institutions should do their part regarding healthy nutrition education.

It was determined that the vast majority of students skipped meals. It was observed that the most skipped meal was lunch and breakfast. It should be ensured that students have a habit of eating enough meals for a sufficient and balanced diet. It was found that the students consumed the most tea and



coffee between meals. Instead, healthier milk, buttermilk, juice, etc. should be provided to drink. It was determined that the students had lunch at the university refectory most. For this reason, meals made in the refectory must be healthy under hygienic conditions. However, the quality of the served food should be improved. It was noted that when students choose food, they pay attention to the fact that the food is satisfying rather than healthy. Students should be warned about this issue and they should be ensured that they pay attention to hygiene, healthy food and high nutritional value rather than satiation.

When the literature is analyzed, it is seen that the average BMI of the students is  $21.9 \pm 2.7$  as a result of the research conducted by Vancelik et al. on university students. (Vancelik, et al., 2007). In the research conducted by Dulger and Mayda at Bartın University, the average BMI of the students was found to be  $22.92 \pm 3.71$ . However, they stated that the rate of male students with normal BMI was 65.0% and the rate of female students was 73.1%. (Dulger & Mayda, 2016). Tozun et al. (2017) reported that 94.6% of female students and 71.4% of male students had normal BMI in their study on students. They found that being overweight and obese was 28.6% higher in boys than in girls (Tozun, 2017). In the research conducted by Zemzemoglu et al. at the Faculty of Health Sciences of Gumushane University, 86.5% of the students have been observed to have normal BMI. (Zemzemoglu, 2019). In our study, the average BMI of the participants was  $21.87 \pm 2.88$ . When we compare our study with similar studies, it is seen that the majority of students have normal BMI. It is gratifying that most of our students have normal BMI values.

## 4. CONCLUSION

Nutrition education should be given to students in order to raise awareness in universities, and more detailed curriculum programs should be created on healthy nutrition. In order for students to gain healthy eating habits, experts should be invited to schools and conferences and panels should be organized in this regard. It should not be forgotten that in order for a country to develop, healthy generations need to be raised. For this reason, it is of great importance to provide young people with healthy eating habits.

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