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Original Article

Determination of Obesity Awareness of University Students Who Are Studying in the Field of Health

Sağlık Alanında Öğrenim Gören Üniversite Öğrencilerinin Obezite Farkındalıklarının Belirlenmesi

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Abstract

Background: Obesity has emerged as an important health problem affecting the whole world in recent years. In this study, it was aimed to examine the obesity awareness of university students studying in the field of health.

Materials and Methods: The study was conducted with 378 students, studying at the Faculty of Health Sciences of a foundation university, between April-May 2022. The participation rate for the questionnaire is 62%. Questionnaire method was used as data collection tool. The Obesity Awareness Scale (OAS) was used to determine students' awareness of obesity.

Results: The age range of the students is 18-35 years and the mean age is 20.71±2.13. 67% of the participants are under the age of 21 and 68.8% are women. 30.1% use cigarettes and 23.3% use alcohol. It was found that 68% of them do not exercise regularly, 80% of them sleep between 6-8 hours, half of them use the internet 4-6 hours a day. 12.2% of the participants were overweight and 5.1% were obese. It was found that the participants got points for obesity awareness (29.13±2.63), nutrition (20.40±2.31), physical activity (17.45±1.90) and overall scale (66.98±7.26).

Conclusions: Obesity awareness of the participants is sufficient. Awareness of women and those who exercise regularly is higher than men and those who do not exercise regularly. Trainings about obesity should be organized to increase the awareness of these students, who are the health workers of the future.

Keywords; Obesity, university, student, health, awareness.

ÖZ

Amaç: Obezite, son yıllarda tüm dünyayı etkileyen önemli bir sağlık sorunu olarak karşımıza çıkmaktadır. Bu çalışma ile sağlık alanında öğrenim gören üniversite öğrencilerinin obezite farkındalıklarının incelenmesi amaçlanmıştır.

Materyal ve Metod: Araştırma Nisan-Mayıs 2022 tarihleri arasında bir vakıf üniversitenin Sağlık Bilimleri Fakültesi'nde öğrenim gören 378 öğrenciyle yapılmıştır. Ankete katılım oranı %62'dir. Veri toplama aracı olarak anket yöntemi kullanılmıştır. Öğrencilerin obezite farkındalıklarını belirlemek için Obezite Farkındalık Ölçeği (OFÖ) kullanılmıştır.

Bulgular: Öğrencilerin yaş aralığı 18-35 yıl olup, yaş ortalaması 20.71±2.13'dür. %67'si 21 yaş ve altında, %68.8'i kadındır. %30.1'i sigara, %23.3'ü alkol kullanmaktadır. %68'inin düzenli egzersiz yapmadığı, %80'inin 6-8 saat arası uyuduğu, yarısının günde 4-6 saat internet kullandığı bulunmuştur. Katılımcıların %12.2'si fazla kilolu, %5.1'i obezdir. Katılımcıların obezite farkındalığı için (29.13±2.63), beslenme için (20.40±2.31), fiziksel aktivite için (17.45±1.90) ve ölçek geneli için (66.98±7.26) puan aldıkları bulunmuştur.

Sonuç: Katılımcıların obezite farkındalıkları yeterli düzeydedir. Kadınların erkeklere göre, düzenli egzersiz yapanların yapmayanlara göre farkındalıkları yüksektir. Geleceğin sağlık çalışanı olacak bu öğrencilerin, obezite hakkında farkındalıklarını artırmak için eğitimler düzenlenmelidir.

Anahtar kelimeler; Obezite, üniversite, öğrenci, sağlık, farkındalık.

Highlights

- Obesity awareness of the participants is sufficient.
- Awareness of women and those who exercise regularly is higher than men and those who do not exercise regularly.

Introduction

Obesity is a chronic metabolic disease characterized by an increase in body fat stores, resulting from the fact that the energy taken with food is more than the energy spent. It affects adolescents and children as well as adults (1,2). According to the World Health Organization (WHO) data, there are more than 650 million obese individuals worldwide, which is approximately 13% of the adult population. The prevalence of obesity increased approximately 3 times between 1975 and 2016. There were more than 124 million obese children and adolescents (6% of girls, 8% of boys) aged between 5-19 years worldwide in 2016 (3). Recent health studies in Turkey show that the prevalence of obesity is gradually increasing and the prevalence of obese individuals over the age of 15 was 16.9% in 2010, and increased to 21.1% in 2019 (4).

Occurrence of obesity varies depending on age, gender, education level, nutritional habits, economic situation, lack of physical activity, environmental factors, genetic and psychological factors (5). It is known that obesity can be associated with a wide variety of health problems, including, prediabetes, type 2 diabetes, cardiovascular diseases, hypertension, hyper/dyslipidemia, cerebrovascular disease, various cancers, obstructive sleep-apnea syndrome, non-alcoholic fatty liver disease, gastroesophageal reflux, biliary tract disease, polycystic ovary syndrome, infertility, osteoarthritis and depression (6-8).

The most commonly used measurement method in determining obesity is Body Mass Index (BMI), which is obtained by dividing the weight by the square of the height in meters (kg/m^2) (9). According to the classification of the WHO, a BMI below 18.5 is considered underweight, between 18.5-24.9 is considered normal weight, between 25-29.9 is considered overweight, and 30 and above is considered obese (10). It has been determined that the risk of diseases increase as the BMI value increases, and the increased BMI creates a basis for obesity and non-communicable diseases (11).

Obesity has been started to be seen frequently in developing countries as well as developed countries. Factors such as increased level of income, adopting a western lifestyle, changes in eating habits, and decreasing energy consumption due to increasing technology are some of the reasons for obesity (9,12). Obesity, which is responsible for 2% to 8% of health expenditures in developed countries, and even 15% in some countries, is now considered as a disease beyond a cosmetic problem (13). The fight against obesity has taken its place in the health policies of countries since the 2000s, and strategies and plans are being developed (14). In order to raise and expand the awareness of the society, the key role in this struggle belongs to the healthcare professionals (15).

University years are an important opportunity to develop health lifestyle behaviors. It is important to evaluate the awareness of university students about obesity, who represent the young adult population (16). It is expected that students who will work in the health sector and enlighten the society in the future should have a high awareness of obesity. In this study, it was aimed to examine the obesity awareness of university students studying in the field of health.

Materials and Methods

Samples

The population of the research consisted of 610 students studying at the Faculty of Health Sciences of a foundation university between April and May 2022. It was aimed to reach the entire universe in the determined time interval without going to the sample selection, and 378 students were reached. The participation rate in the questionnaire is 62%.

Data Collection Method

In this descriptive study, questionnaire method was used to collect data. The students were informed about the research and those who volunteered to participate were sent the online questionnaire via e-mail to fill the form. The questionnaire form consists of two parts. In the first part, there are 12 questions prepared by the researchers, including age, gender, income level, smoking and alcohol use, health problems, regular exercise, height and weight, presence of overweight in the family, daily internet use and sleep time. In the second part, the "Obesity Awareness Scale" (OAS), which was developed by Allen in 2011 and adapted into Turkish by Kafkas and Ozen in 2014, was used to determine students' awareness of obesity (17,18). The scale consists of 23 items. It consists of three sub-dimensions: obesity awareness (8 items), nutrition sub-dimension (7 items) and physical activity sub-dimension (8 items). The scale is in a 4-point likert structure from negative to positive. The internal consistency coefficient for the overall scale was reported as α=0.80 (17). As the total score obtained in the scale and the score obtained in the sub-dimensions increase, awareness increases. In the adaptation study of the scale, a three-dimensional structure consisting of 20 items was found and the internal consistency coefficient for the overall scale was determined as α=0.87 (18).

Statistical Analysis

Analysis of the research data was performed with SPSS (Version 21, Chicago IL, USA) statistical program. In the analysis of descriptive statistics, arithmetic mean, standard deviation and frequency analysis were used.

Whether the data showed a normal distribution or not was determined by the kurtosis and skewness values. It was observed that the Skewness and Kurtosis values were in the range of ±2, showing a normal distribution (19). Due to the normal distribution of the data, Independent Samples T Test was used to compare two independent groups, One Way ANOVA was used to compare three or more groups, and Pearson Correlation analysis was used to determine the relationships between variables. A p value of <0.05 was considered statistically significant.

Ethical Issues

The study was approved by Lokman Hekim University Non-Interventional Clinical Research Ethics Committee (Decision no: 2022/63 and Code no: 2022054). The research was conducted in line with the principles of the Declaration of Helsinki. Verbal consent was obtained from the patients participating in the study.

Limitations

The limitation of the study is that the study was conducted in a single center and data was not collected in a way to make comparisons according to departments.

RESULTS

The sociodemographic characteristics of the participants are given in Table 1. The age range of the students is 18-35 years and the mean age is 20.71±2.13. 67% of the participants are under the age of 21, 68.8% are women, and 52.6% of them have more family income than their expenses. 30.1% use cigarettes and 23.3% use alcohol.

Considering the mean score of the participants; It was found that they got 29.13±2.63 points for obesity awareness, 20.40±2.31 points for nutrition, 17.45±1.90 points for physical activity, and 66.98±7.26 points for OAS in general. In addition, the reliability coefficient for the total OAS was determined as 0.79 (Table 2).

When the OAS and its sub-dimensions were examined according to sociodemographic characteristics, it was found that women had a higher mean than men in all sub-dimensions and overall scale ($p<0.05$). When the participants were examined according to their regular exercise status, the physical activity sub-dimension mean score was found to be higher in those who do regular exercise compared to those who do not ($p=0.04$) (Table 3). No statistically significant difference was found in OAS and its sub-dimensions according to other sociodemographic characteristics (age, income level, smoking and alcohol use, health problems, BMI, presence of overweight in the family, daily internet use and sleep time) ($p>0.05$).

Table 1. Sociodemographic characteristics of the participants

Variables	n	%
Age groups (year)		
≤21	253	67.0
≥22	125	33.0
Sex		
Male	118	31.2
Female	260	68.8
Income level		
Income < expense	47	12.4
Income = expense	132	35.0
Income > expense	199	52.6
Smoking		
Yes	114	30.1
No	264	39.9
Alcohol use		
Yes	88	23.3
No	290	76.7
Having an overweight family member		
Yes	67	17.7
No	311	82.3
Having a health problem		
Yes	32	8.5
No	346	91.5
Regular exercise		
Yes	121	32.0
No	257	68.0
Daily sleep time (hours)		
< 6	44	11.7
6-8	302	79.9
≥9	32	8.4
BMI		

Weak	60	15.8
Normal	253	66.9
Overweight	46	12.2
Obese	19	5.1
Using internet (hours)		
≤3	152	40.2
4-6	188	49.8
≥7	38	10.0

Table 2. Descriptive statistics and reliability coefficients of the OAS and subdimesions

	Item numbers	Minimum	Maximum	Mean	SD	CA
Obesity awareness	9	9	36	29.13	2.63	0.73
Nutrition	6	6	24	20.40	2.31	0.75
Physical activity	5	5	20	17.45	1.90	0.80
Total OAS	20	20	80	66.98	7.26	0.79

(SD: Standard Deviation, CA: Cronbach Alfa)

Table 3. OAS mean scores according to sociodemographic characteristics of the students

	Obesity awareness		Nutrition		Physical activity		OAS Total	
Variables	**M**	**SD**	**M**	**SD**	**M**	**SD**	**M**	**SD**
Sex								
Male	27.32	4.62	19.47	2.68	16.61	3.12	63.4	10.42
Female	29.51	3.66	21.03	2.36	18.86	2.30	69.4	8.32
p	0.001		0.001		0.001		0.03	
Regular exercise								
Yes	29.01	1.89	20.15	2.75	18.23	2.54	67.39	7.18
No	28.71	2.15	19.86	2.29	16.92	3.46	65.49	7.90
p	0.86		0.90		0.04		0.28	

(Independent Samples T Test) M:Mean, SD: Standard Deviation, OAS: Obesity Awareness Scale

DISCUSSION

With this study, it is aimed to examine the obesity awareness of university students who will serve the society as health workers in the future.

In our study, 12.2% of the students were overweighted and 5.1% were obese. When other studies conducted with university students were examined, the prevalence of overweight and obesity was found as follows: Saudi Arabia (18.6%-12.7%), Malaysia (15.9%-5.2%), India (26.8-10.7%), Egypt (36.9-12.5%) (20-23). The prevalence of overweight and obesity in studies conducted in Turkey was found as (26.1%-8.9%), (14-3.6%), (17%-9%) and (18.8%-4.9%), respectively (5, 24-26). It is thought that maintaining body weight at young ages and awareness of obesity will have an impact on preventing or reducing weight gain in later years (27). Our research is similar to previous studies and these results show that obesity should be considered as a public health problem and should be seriously addressed.

Decreased physical activity, increased time spent watching television and cell phone/internet in youth are reported to be a problem and it has been stated that these factors worsen weight gain and inactivity (20). In our study, it was found that half of the participants used the internet for 4-6 hours a day. When the studies conducted in Turkey are examined; It has been determined that 30% of university students use the internet for more than 3 hours (28), and in another study, 40% of students use the internet for up to 4 hours (29). In another study, it was found that the time spent in front of the screen (TV, computer, mobile phone) for students increased with the Covid-19 pandemic and was approximately 8 hours per day (30). In a study conducted in South Korea, it was found that the prevalence of overweight and obesity increased in those who used the Internet for more than 2 hours a day (31).

In the original OAS study; it was found that students scored obesity awareness (29.09±3.58), nutrition (19.41±97), physical activity (16.90±2.23) and the overall scale (65.40±8.84) (17). In the adaptation study to Turkish; obesity awareness (27.36±2.18), nutrition (20.27±2.54), physical activity (18.57±1.95), and overall scale (65.20±6.67) points were observed (18). When the mean scores of OAS and its sub-dimensions were examined in our study; (29.13±2.63), (20.40±2.31), (17.45±1.90), (66.98±7.26) points were found for obesity awareness, nutrition, physical activity and overall scale, respectively. The results of our study are similar to the results of other studies using the OAS scale (17,18,24,32,33).

Considering the OAS scale and its sub-dimensions, which include sociodemographic characteristics, women's awareness was found to be higher than men. These results are parallel with the findings of previous studies

(5,24,34). It is considered that the fact that women give more importance to external appearance and weight control than men is effective in high awareness for obesity. In addition, the physical activity sub-dimension scores of those who exercise regularly were found to be higher than those who do not. It is an expected result that those who exercise regularly give more importance to their health and have a higher awareness of obesity. In addition, there was no difference in the obesity awareness of the participants in terms of other sociodemographic characteristics. Obesity awareness does not change according to sociodemographic characteristics in some previous studies (32,35).

In our study, no statistically significant difference was found in OAS and its sub-dimensions according to other sociodemographic characteristics (age, income level, smoking and alcohol use, health problems, BMI, presence of overweight in the family, daily internet use and sleep time). In the study of Ozkan et al., no statistically significant difference was found between the mean OAS scores according to income level, the presence of obesity in the mother or father, smoking and alcohol use, regular meal consumption, and sleep time (32). Similarly, in the study of Alasmari et al., no statistically significant relationship was found between income level, nutritional habits, activity levels, smoking, alcohol use and awareness scores (35). Our research is similar to previous studies.

In conclusion, obesity awareness of students studying in the field of health is sufficient. Awareness of women and those who exercise regularly is higher than men and those who do not exercise regularly. Trainings should be organized to increase the awareness about obesity of these students, who are the health workers of the future. Obesity should be combated by ensuring that university students spend less time in front of the screen, do sports, exhibit healthy behaviors by avoiding harmful substances such as tobacco and alcohol, and creating a healthy eating culture. In future studies, it is recommended to examine obesity awareness according to faculties and departments.

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