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The relationship of adult food addiction with obesity, the desire to be admired and being ego-centric

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ABSTRACT

Objective: The research was carried out as a descriptive cross-sectional study to determine the relationship between food addiction, obesity, desire to be admired, and egocentrism in adults.

Material and Methods: The research was carried out with 678 adults living in Turkey who voluntarily agreed to participate in the study. The research data were collected via Google Form between October 2021 and March 2022, with an online questionnaire consisting of Sociodemographic Data Form, Yale Food Addiction Scale, Desire to Be Admired Scale, and Inflated Sense of Self Scale.

Results: In the research, 80.8% were female of the adults who participated, on average 30.41±10.0 years old, 24.2% were overweight and 11.5% were obese and weighed an average of 24.13±4.71 kg/m^2 body mass index and 16.7% of them had food addiction. In the study, the majority of adults with food addiction were overweight or obese; A significant relationship was found between the diagnosis of psychiatric illness and body mass index characteristics of adults and food addiction. In the study, it was determined that there were positive and low-level significant relationships between adults' food addiction and total scores of body mass index, desire to be admired and inflated sense of self.

Conclusion: As a result of the research, it was found that there were positive significant relationships between adult food addiction and obesity, desire to be admired and inflated sense of self; It has been determined that obesity, desire to be admired and inflated sense of self increase with the increase of food addiction.

Keywords: Adult; ego; egocentrizm; food addiction; obesity

ÖZET

Amaç: Araştırma, Yetişkinlerde yeme bağımlılığının obezite, beğenilme arzusu ve benmerkezcilik ile ilişkisinin belirlenmesi amacıyla tanımlayıcı kesitsel olarak gerçekleştirilmiştir.

Gereç ve Yöntemler: Araştırma, Türkiye'de yaşayan çalışmaya katılmayı gönüllü olarak kabul eden 678 yetişkin ile gerçekleştirilmiştir. Araştırma verileri, Google Form üzerinden Ekim 2021-Mart 2022 tarihleri arasında, Sosyodemografik Veri Formu, Yale Yeme Bağımlılığı Ölçeği, Beğenilme Arzusu Ölçeği ve Şişirilmiş Benlik Duygusu Ölçeğinden oluşan çevrimiçi anket ile toplanmıştır.

Bulgular: Araştırmaya katılan, yetişkinlerin %80,8'inin kadın, ortalama 30,41±10,0 yaşında, %24,2'sinin fazla kilolu ve %11,5'inin obez olduğu ve ortalama 24,13±4,71 kg/m^2 beden kitle indeksinde olduğu ve %16,7'sinde yeme bağımlılığı olduğu belirlenmiştir. Araştırmada, yeme bağımlılığı olan yetişkinlerin çoğunluğunun fazla kilolu veya obez olduğu; yetişkinlerin psikiyatrik hastalık tanısı ve beden kitle indeksi özellikleri ile yeme bağımlılığı arasında anlamlı ilişki olduğu saptanmıştır. Araştırmada, yetişkinlerin yeme bağımlılığı ile beden kitle indeksi, beğenilme arzusu ve şişirilmiş benlik duygusu toplam puanları arasında pozitif yönde ve düşük düzeyde anlamlı ilişkilerin olduğu belirlenmiştir.

Sonuç: Araştırma sonucunda, yetişkinlerin yeme bağımlılığı ile obezite, beğenilme arzusu ve şişirilmiş benlik duygusu arasında pozitif yönde anlamlı ilişkilerin olduğu; yeme bağımlılığının artmasıyla obezite, beğenilme arzusu ve şişirilmiş benlik duygusunun da arttığı belirlenmiştir.

Anahtar Kelimeler: Benmerkezcilik; ego; obezite; yeme bağımlılığı; yetişkin

Food addiction is the feeling of not being able to resist foods containing high sugar, carbohydrate and fat and wanting them too much (1). Associated with palatable foods, it is often an explanation for irritating cravings, loss of control, and overconsumption, and has been with us for many years (2). Research on food addiction was started by Randolph in 1956 (3).

The "stop eating" response to satiety signals is delayed or inhibited by consuming delicious foods containing high sugar and high fat. Therefore, an insensitivity to satiety signals occurs over time. In addition, after a decrease in serotonin levels, people desire to eat carbohydrates in order to improve their mood (4,5). People with high reward sensitivity tend to consume foods that are especially sweet and high in fat. Because with the consumption of foods high in sugar and fat, dopamine and opioid release increases and activates the brain's reward system (6).

Among the risk factors of food addiction; high sugar and high fat foods, obesity, genetic factors, mood and stress. In a meta-analysis study by Bao et al. (7), it was reported that the prevalence of food addiction in overweight or obese adults and adolescents is higher than in individuals with normal body weight. The results of a study conducted in Germany show that the incidence of food addiction is higher in obese individuals worldwide (8).

Genetic predisposition is shown among the risk factors for food addiction (9). People with a genetic predisposition may lose control of their eating behavior due to emotional stress factors (10).

Food addiction is associated with emotion dysregulation, negative affect, mood disorders, difficulty coping with stress, and low self-esteem. It has been observed that the process leads to depression in individuals with these characteristics, revealing their tendency to addiction, and food addiction emerges in coping with these mood changes (11).

Which diet or which aesthetic intervention is necessary under the physical beauty standards offered by the media is given in many media content, and many individuals can be harmed physically and psychologically in this way. It is observed that individuals with eating disorders such as anorexia nervosa, bulimia nervosa, and obesity have a desire to be admired by other individuals in the society (12).

In addition, stress has generally been found to have different effects on eating, depending on the type of consumer. Restricted eaters (those who deliberately control or restrict their food intake to maintain or lose weight) and emotional eaters (those who overeat in response to negative emotional arousal) have been found to consume more energy and fat under stressful conditions, especially those involving ego threat. It has been observed that both restrained and emotional eaters consume significantly more after the ego-threatening stressor than after the control condition (13).

In this study, examining the relationship between obesity, which develops with overeating as a result of individuals having difficulty in resisting the consumption of certain foods, desire to be liked and the level of egocentrism will provide a different perspective to the literature.

Material and Methods

This cross-sectional study was conducted with 678 adults aged 18-65 years living in Turkey who agreed to participate in the study. The research data were collected with the "Sociodemographic Data Form" prepared by the researcher, and the online questionnaire consisting of the Yale Food Addiction Scale (YFAS), the Desire to Be Admired Scale (DBAS), and the Inflated Sense of Self Scale (ISSS).

1. Sociodemographic Data Form

The Sociodemographic Data Form was prepared by the researcher and consisted of 10 questions and two parts. In the first part of the form; It consisted of 8 questions describing personal and health-disease characteristics related to gender, marital status, age, educational status, diagnosis of psychiatric disease, and psychiatric drug use. In the second part of the form; It consisted of 2 questions describing height (cm) and body weight (kg) of adults. Body mass index (BMI) was calculated from the body weight and height data entered by the individuals. The classification of the World Health Organization was used to group BMIs (14).

2. Yale Food Addiction Scale (YFAS)

The Yale Eating Addiction Scale was developed by Gearhardt et al. in 2009 in order to identify individuals with symptoms of addiction to certain foods (15). The validity and reliability study of the scale, which was adapted into Turkish, was performed by Bayraktar et al. (16). YFAS is a

27-item scale used to detect dependence on certain foods and define its sub-criteria based on the DSM-IV diagnostic criteria for substance addiction. In the YFAS, 7 sub-criteria analyzed in the diagnosis of substance addiction are calculated and there is an 8th clinical significance score.

The number of criteria met constitutes the symptom count scoring. The number of symptoms varies between 0 and 7 (16). In the study, the number of symptoms was calculated and if at least three of the seven criteria were met in addition to the clinical significance criteria, individuals were evaluated as food addicts. In this study, the reliability coefficient of the YFAS was calculated as Cronbach's Alpha 0.86.

3. Desire to Be Admired Scale (DBAS)

In the research, the Desire to Be Appreciated Scale, which was developed by Kaşıkara and Doğan by applying it to university students in 2016-2017, aimed to determine the desire of individuals to be admired. The validity and reliability studies of the scale were also done by the same people. DBAS does not contain reverse items and is a one-dimensional scale. It is a self-assessment scale consisting of 9 items and answered with a 4-point rating as '1' I totally disagree, '2' I disagree, '3' I agree, '4' I totally agree. The score obtained from the scale varies between 9-36, and the higher the score, the higher the desire to be admired. In order to prove the validity of the scale, explanatory and confirmatory factor analyzes were performed and the single factor structure of the scale consisting of 9 items was confirmed. In addition, the cronbach alpha internal consistency coefficient calculated with to prove the reliability of this scale was found to be 0.82 (17). In this study, the same coefficient was calculated as 0.92.

4. Inflated Sense of Self Scale (ISSS)

The Inflated Sense of Self (Ego Inflation) Scale was developed by Yılmaz (2018). The scale is a self-evaluation scale consisting of a total of 15 items and answered with a 5-point rating. The score that can be obtained from the scale is between 15-75, and the higher the score, the higher the Inflated Sense of Self. The scale has 4 sub-dimensions. These; Inflation in Social Orientation, Inflation in Selfishness, Inflation in Manipulation, and Inflation in Self-Exaggeration. The Cronbach Alpha internal consistency coefficient ranged between 0.76 and 0.79 for the four sub-dimensions. The internal consistency coefficient calculated for the entire scale was found to be 0.90. The values found show that this scale is a reliable tool for measuring the inflated sense of self (18). In this study, Cronbach's Alpha reliability coefficient of ISSS and its sub-dimensions was calculated between 0.66 and 0.89. The general reliability coefficient of ISSS was calculated as Cronbach's Alpha 0.89.

Data Analysis

The data of the research were evaluated with the SPSS (ver:23.0) program. In the study, the number, frequency distribution, mean, standard deviation, minimum and maximum values of the sociodemographic and anthropometric characteristics of the adults participating in the research were determined by using descriptive statistics tests on the data obtained from the Sociodemographic Data Form. Whether the data fit the normal distribution or not was determined by Kolmogorov-Smirnov (K-S) and Shapiro Wilks tests. The mean score, standard deviation, median, maximum and minimum values of the scales used in the study were determined. Cronbach's alpha coefficient for the scale and its sub-dimensions was calculated by reliability analysis. In the research, at the stage of comparing whether there is a difference between the averages of the independent groups; Independent Groups t-test was used for two groups and One-Way Analysis of Variance was used for more than two groups for normally distributed data. After testing their homogeneity, analysis of variance was performed between homogeneous groups. In the analysis of variance, the difference between the groups was examined with Tamhane's T2 test. In order to determine the relationship between the variables in the study, Pearson Correlation Coefficient analysis was applied to the variables conforming to the normal distribution. In the evaluation of the data, the level of significance was accepted as $p < 0.05$. The skewness and kurtosis values of the scales were checked; The skewness and kurtosis values of the YFAS, BAI and SBAS and their sub-dimensions were found to be within the normal distribution limits (+1.5, -1.5). For this reason, it was decided to use parametric tests in the analysis of scales and their sub-dimensions.

Ethical Approval

Ethics committee approval, dated 28.09.2021 and decision number 09, was obtained from Üsküdar University Non-Interventional Clinical Research Ethics Committee before the data were collected in the study. At the meeting numbered 04 held on 28.03.2022, it was decided that the research whose revision was requested was ethically appropriate.

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Results

The distribution of sociodemographic, anthropometric characteristics and food addiction status of the adults participating in the study is given in Table 1. 80.8% (n=548) of the participants were female and 19.2% (n=130) were male. Adults participating in the study are on average 30.41±10.00 (between 18-65 years old). It was determined that 16.7% (n=113) of the adults participating in the study had food addiction and 83.3% (n=565) did not have food addiction. When the BMI characteristics of the adults participating in the research are examined; 57.4% (n=389) of the participants were normal, 24.2% (n=164) were overweight, 11.5% were obese (n=78), 6.9% were underweight (n =47) and a mean BMI of 24.13±4.71 (between 15.20-42.20 kg/m2) kg/m2 (Table 1).

Table 1: Distribution of adults' sociodemographic, anthropometric characteristics and food addiction status (n=678)			
Variable	**Category**	**n**	**%**
Gender	Female	548	80,8
	Male	130	19,2
Marital status	Married	269	39,7
	Single	409	60,3
Age Group	18-25 years	313	46,2
	26-35 years	182	26,8
	36 years and older	183	27,0
Educational Status	High school graduate and below	144	21,2
	Graduate	365	53,8
	Postgraduate	169	24,9
Psychiatric Disease Status	Available	43	6,3
	Not available	635	93,7
Psychiatric Drug Use Status	Uses	28	4,1
	Not using	650	95,9
Eating Addiction Status	Has an addiction to food	113	16,7
	No food addiction	565	83,3
Variable	**Min,-Max,**	**Median**	**X̄±SD**
Age	18,00-65,00	26,00	30,41±10,00
Variable	**Category**	**n**	**%**
BMI Group	Underweight	47	6,9
	Normal BMI	389	57,4
	Overweight	164	24,2
	Obesity	78	11,5
Variable	**Min,-Max,**	**Median**	**X̄±SD**
Length (cm)	150,00-192,00	165,00	166,22±8,28
Body Weight (kg)	39,00-125,00	64,00	66,88±14,90
BMI (kg/m2)	15,20-42,20	23,30	24,13±4,71
n: Number, X̄: Average; BMI: Body Mass Index; SD: Standard Deviation; Min.: Minumum; Max.: Maximum; ±: plus-minus			

It was determined that the adults participating in the study got an average of 2.87±1.82 (Median: 3.00; Min.-Max.: 0-7 points) on the YFAS and had a low level of food addiction. It was determined that they got an average score of 19.38±6.37 (Median: 19.00; Min.-Max.: 9.00-36.00) from the total of DBAS and the level of desire to be admired by adults was low. It was determined that the adults participating in the study scored an average of 30.32±10.52 (Median: 28.00; Min.-Max.: 15.00-75.00) from the total ISSS, and their inflated sense of self was low (Table 2).

Table 2: Mean scores of the YFAS, DBAS, and ISSS and its sub-dimensions					
Scales and Sub-Dimensions	**N**	**Min.**	**Max.**	**Median**	**X̄±SD**
YFAS Total	678	0,00	7,00	3,00	2,87±1,82
DBAS Total	678	9,00	36,00	19,00	19,38±6,37
ISSS Total	678	15,00	75,00	28,00	30,32±10,52
ISSS-Inflation in Social Orientation	678	3,00	20,00	9,00	9,11±3,48
ISSS-Inflation in Selfishness	678	4,00	20,00	6,00	6,59±2,97
ISSS-Inflation in Manipulation	678	4,00	20,00	9,00	9,43±3,63
ISSS-Inflation in Self-Exaggeration	678	3,00	15,00	4,00	5,18±2,47
n: Number, X̄: Average, SD: Standard Deviation, Min.: Minumum, Max.: Maximum; ±: plus-minus					

Table 3 shows the relationships between Adults' YFAS Scores and the mean scores of BMI, DBAS, and ISSS. There was a positive and low-level significant relationship between the YFAS total mean score of the adults participating in the study and the mean BMI (r=0.317; p<0.001);

There was a positive and low-level significant correlation between the YFAS total score average and the DBAS total score average (r=0.333; p<0.001); A positive and low-level significant correlation was found between the YFAS total score average and the ISSS total score average (Table 3).

Table 3: Relationships between adults'YFAS scores and the mean scores of BMI, DBAS, and ISSS										
BMI and Scales	**N**	**r / p**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
1- YFAS Total	678	**rᵃ**	-							
		p								
2-BMI	678	**rᵃ**	,317**	-						
		p	,000							
3- DBAS Total	678	**rᵃ**	,333**	,028	-					
		p	,000	,468						
4- ISSS Total	678	**rᵃ**	,258**	-,055	,377**	-				
		p	,000	,152	,000					
5- ISSS-Inflation in Social Orientation	678	**rᵃ**	,213**	-,050	,308**	,843**	-			
		p	,000	,189	,000	,000				
6- ISSS-Inflation in Selfishness	678	**rᵃ**	,188**	-,001	,251**	,842**	,629**	-		
		p	,000	,987	,000	,000	,000			
7- ISSS-Inflation in Manipulation	678	**rᵃ**	,211**	-,136**	,338**	,843**	,606**	,628**	-	
		p	,000	,000	,000	,000	,000	,000		
8- ISSS-Inflation in Self-Exaggeration	678	**rᵃ**	,245**	,017	,352**	,806**	,562**	,592**	,546**	-
		p	,000	,657	,000	,000	,000	,000	,000	
ᵃPearson correlation analysis was applied, *p<0.001. BMI: Body Mass Index; YFAS: Yale Food Addiction Scale; DBAS: Desire to Be Admired Scale; ISSS: Inflated Sense of Self Scale										

Table 4 shows the comparison of the adults' YFAS, DBAS, ISSS and sub-dimension scores according to BMI level with One-Way ANOVA Analysis of Variance. In the study, it was determined that the total YFAS scores of adults differed significantly according to the BMI level (F=22.465; p=0.001). According to the results of the variance analysis of Tamhane's T2 test, which was carried out to determine which group the difference originated from; YFAS total scores of obese adults (3.97±2.05), underweight adults (1.89±1.10), adults with normal BMI (2.58±1.67) and overweight adults (3.31±1.87); YFAS total scores of obese adults (3.97±2.05) compared to adults with normal BMI (2.58±1.67) and overweight adults (3.31±1.87), and YFAS total scores of obese adults (3.97±2.05) were found to be statistically significantly higher than overweight adults (3.31±1.87) (p<0.05). In the study, it was determined that DBAS total scores of adults did not differ significantly according to BMI level (F=0.110; p=0.954; p>0.05). In the study, it was determined that ISSS total scores of adults did not differ significantly according to BMI level (F=0.506; p=0.679; p>0.05) (Table 4).

Table 4: Comparison of adults' YFAS total score, DBAS total score, and ISSS total and sub-dimension scores according to BMI level with one-way ANOVA analysis of variance

Scales and Sub-Dimensions	BMI Level	N	X̄±SD	F*	p	Difference
YFAS Total	(1) Underweight	47	1,89±1,10	22,465	**0.001**	1-2,3,4[a] 2-3,4[a] 3-4[a]
	(2) Normal BMI	389	2,58±1,67			
	(3) Overweight	164	3,31±1,87			
	(4) Obesity	78	3,97±2.05			
DBAS Total	(1) Underweight	47	19,40±6,45	0,110	0.954	-
	(2) Normal BMI	389	19,27±6,30			
	(3) Overweight	164	19,52±6,29			
	(4) Obesity	78	19,65±6,96			
ISSS Total	(1) Underweight	47	31,17±12,07	0,506	0.679	-
	(2) Normal BMI	389	30,52±10,34			
	(3) Overweight	164	30,23±10,32			
	(4) Obesity	78	28,98±10,91			
ISSS-Inflation in Social Orientation	(1) Underweight	47	9,74±3,80	0,764	0.515	-
	(2) Normal BMI	389	9,08±3,42			
	(3) Overweight	164	9,15±3,53			
	(4) Obesity	78	8,78±3,55			
ISSS-Inflation in Selfishness	(1) Underweight	47	6,51±3,24	0,041	0.989	-
	(2) Normal BMI	389	6,58±2,96			
	(3) Overweight	164	6,65±2,90			
	(4) Obesity	78	6,57±2,89			
ISSS-Inflation in Manipulation	(1) Underweight	47	9,74±4,13	1,601	0.114	-
	(2) Normal BMI	389	9,72±3,56			
	(3) Overweight	164	9,09±3,52			
	(4) Obesity	78	8,48±3,77			
ISSS-Inflation in Self-Exaggeration	(1) Underweight	47	5,17±2,64	0,228	0.877	-
	(2) Normal BMI	389	5,13±2,41			
	(3) Overweight	164	5,32±2,47			
	(4) Obesity	78	5,14±2,70			

*ANOVA Analysis of Variance, **p<0.05, ªTamhane's T2 Testi. YFAS: Yale Eating Addiction Scale; DBAS: Desire to Be Admired Scale; ISSS: Inflated Sense of Self Scale

Table 5 shows the comparison of adults' YFAS, DBAS, ISSS and sub-dimension scores by gender with Independent Groups t-test. In the study, it was determined that the total YFAS scores of adults differed significantly by gender (t=2.878; p=0.004). It was determined that the YFAS total scores of adult males (2.97±1.85) were statistically significantly higher than adult females (2.46±1.62) (p<0.05). It was determined that the total DPS scores of adults differed significantly by gender (t=2.691; p=0.004). It was determined that the total DBS scores of adult female (19.70±6.47) were statistically significantly higher than that of adult male (18.04±5.77) (p<0.05) (Table 5).

Table 5: Comparison of adults' total score of YFAS, total score of DBAS, and total and sub-dimension scores of ISSS in independent groups by t-test

Scales and Sub-Dimensions	Gender	N	X̄±SD	t*	p
YFAS Total	Female	548	2,97±1,85	2,878	**0,004****
	Male	130	2,46±1,62		
DBAS Total	Female	548	19,70±6,47	2,691	**0,004****
	Male	130	18,04±5,77		
ISSS Total	Female	548	30,38±10,68	0,192	0,848
	Male	130	30,06±9,83		
SBSS-Inflation in Social Orientation	Female	548	9,12±3,54	0,262	0,793
	Male	130	9,03±3,24		
SBSS-Inflation in Selfishness	Female	548	6,59±3,00	-0,549	0,583
	Male	130	6,72±2,83		
SBBS-Inflation in Manipulation	Female	548	9,56±3,65	1,971	0,059
	Male	130	8,86±3,53		
SBDÖ-Inflation in Self-Exaggeration	Female	548	5,12±2,51	-1,302	0,193
	Male	130	5,43±2,29		

*Independent Groups t-Test, **p<0.005. YFAS: Yale Eating Addiction Scale; DBAS: Desire to Be Admired Scale; ISSS: Inflated Sense of Self Scale*

Discussion

Food addiction has become a subject of increasing interest in recent years, especially in societies where the prevalence of obesity has increased (19). The relationship between food addiction and obesity has been increasing in recent years. However, whether obesity is a real cause of food addiction is a controversial issue (20). It is thought that food addiction may be caused by obesity and various psychological reasons, so it is essential to determine the risk factors of food addiction and to create treatment plans for them.

In this study, a positive and low-level significant correlation was found between the mean YFAS total score of adults and the mean BMI (Table 3). In addition, it was determined that YFAS total scores differed significantly according to the BMI level of adults. YFAS total scores of obese adults (3,97±2,05), were found to be statistically significantly higher than underweight adults (1,89±1,10), adults with normal BMI (2,58±1,67), and overweight adults (3,31±1,87) (Table 4). Studies have found a positive relationship between food addiction and BMI, and it has been reported that food addiction is associated with higher BMI (21, 22, 23, 24, 25). In the study of Oktay (26), the relationship between food addiction and BMI was found to be significant; it has been found that food addiction is more common in obese individuals. In the study conducted by Öztatar (27), it was observed that participants with food addiction had higher BMI values. In other words, it has been reported that as BMI increases, food addiction also increases. In the literature review, the majority reported that there is a relationship between BMI and food addiction and this relationship is positive. In line with the information obtained from this study and the literature, it can be said that the prevalence of food addiction increases as BMI increases.

In the study, it was determined that the YFAS total scores of adults differed significantly by gender. It was determined that the YFAS total scores of adult female (2.97±1.85) were statistically significantly higher than adult males (2.46±1.62) (Table 5). In the study of Pedram et al. (28), the prevalence of food addiction in women was found to be higher than in men, and it was reported that women are at higher risk for food addiction than men. In the study of Burrows et al. (29), it was reported that food addiction differs significantly according to gender, with a higher prevalence in women (24.4%) than in men (13.3%). In the study conducted by Bilgi (30) in Isparta, food addiction was found to be higher in women. However, this difference was not statistically significant. In the study conducted by Başar (25), it was reported that food addiction was significantly more common in women (16.8%) than in men (5.7%). In this study and studies in the literature, it has been reported that food addiction is higher in women than in men. It can be said that women have higher food addiction than men.

In the study, it was found that there was a positive and low-level significant relationship between the YFAS total score average and the DBAS total score average (Table 3). There is no study in the literature examining the relationship between food addiction and the desire to be admired. This study will be the first. More research is needed to confirm this relationship.

A positive and low-level significant correlation was found between the YFAS total score average and the ISSS total score average (Table 3). More work is needed in this area to support this relationship.

A positive and low-level significant correlation was found between the DBAS total score average of the adults participating in the study and the ISSS total score average (Table 3). More work is needed in this area to support this relationship.

Some limitations should be considered when evaluating study data. The sample of this study is limited to individuals aged 18-65 between the years 2021-2022. The research is limited to the question items included in the "Socio-Demographic Information Form", "Eating Addiction Scale", "Desire to Be Admired Scale", Inflated Sense of Self Scale" data measurement tools. The study is limited to the answers given by the participants to the questions. The study is limited to the perceptions and thoughts of the participants in a certain time period, it is not possible to detect the changes over time. The results of the study are limited to the data analysis method used by the researcher.

Conclusion

As a result, food addiction can be a major problem in our society. It can be said that obesity, desire to be admired and egocentrism are positively related to food addiction. It has been determined that obesity, desire to be admired and inflated sense of self increase with the increase in food addiction. Results from the study may shed light on developing better treatment programs for eating behavior problems. While targeting body weight loss in overweight and obese individuals, treatment efficacy can be increased by considering food addictions and reducing food addiction. Collaboration of dietitian and psychologist in the treatment of food addiction can help to achieve more positive results.

Conflict of Interest

The author has no funding or conflicts of interest to disclose.

Declarations

Funding and Conflicts of Inteerest

Ethics Approval

Ethics committee approval, dated 28.09.2021 and decision number 09, was obtained from Üsküdar University Non-Interventional Clinical Research Ethics Committee before the data were collected in the study. At the

meeting numbered 04 held on 28.03.2022, it was decided that the research whose revision was requested was ethically appropriate.

Authors' contributions

Idea/Concept: **ER Laciner, ÖÖ Özcan, M Karahan;** *Design:* ER Laciner; *Supervision/Consulting:* ÖÖ Özcan, M Karahan; *Data Collection and/or Processing:* ER Laciner; *Analysis and/or Interpretation:* ER Laciner, ÖÖ Özcan, M Karahan; *Literature Review:* ER Laciner; *Writing of the Article:* ER Laciner; *Critical Review:* ÖÖ Özcan, M Karahan.

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