THE TURKISH JOURNAL ON ADDICTIONS
www.addicta.com.tr

ORIGINAL ARTICLE

Investigation of the Relationship Between Social Media Addiction and Orthorexia Nervosa in Adult Individuals Who Applied to Obesity Polyclinic

Beyza Sena Şener, Hilal Özkaya

Department of Family Medicine, Başakşehir Çam ve Sakura Şehir Hospital, İstanbul, Türkiye

ORCID iDs of the authors: B.S.Ş. 0009-0005-6049-0139, H.Ö. 0000-0002-4223-9701.

Main Points

- In our study, the frequency of orthorexia nervosa was found to be higher among obese individuals.
- Participants who score high on the social media addiction scale have a higher incidence of orthorexia nervosa than the others.
- The effect of social media on eating and weight loss behaviors should be handled carefully by family physicians.

Abstract

Orthorexia nervosa is an obsession with healthy eating with associated restrictive behaviors. The aim of this study was to investigate the relationship between social media addiction and orthorexia nervosa in obese individuals. A cross-sectional study was conducted with 174 participants who applied to the obesity outpatient clinic and their social media use, and addiction status and the presence of orthorexia nervosa were investigated. Among a total of 174 people, 117 (67.2%) were women and 57 (32.8%) were men.The mean body masss index value was 30.53 ± 5.10. It was determined that 79.3% of the participants had tried to lose weight before, the mean score of the participants was 28.33 ± 4.61 in orthorexia nervosascale and 46.47 ± 14.78 in social media addiction scale. According to the body masss index value, those who were obese had higher SMBÖ-SF(social media addiction scale adult form) scores compared to those who were overweight. A negative relationship was found between the orthorexia nervosa scale 11 score and the "virtual communication" score of social media addiction scale adult form sub-dimensions. The incidence of orthorexia nervosa was higher in obese individuals who scored higher on social media addiction scale. Sharing on social media can have an impact on the body image and diet. Informing obese individuals is important in protecting against popular trends in social media and possible eating disorders.

Keywords: Family medicine, obesity, orthorexia nervosa, social media addiction

Corresponding Author:
Hilal Özkaya,
E-mail:
ozkaya2012@gmail.com

Received: May 16, 2023
Accepted: July 26, 2023
Publication Date:
August 21, 2023

Introduction

Obesity is a chronic disease that occurs when the amount of energy is taken from food than the body spends and the amount of fat in the body increases in proportion to its lean mass (Altunkaynak & Özbek, 2006). Obesity, which is seen as a complex and multifactorial disease with many negative effects on human health, is the most common preventable cause of death after smoking in today's world (TEMD, 2019). According to the World Health Organization (WHO Consultation on Obesity, 1999), the prevalence of obesity is increasing at an alarming rate worldwide.

Nowadays, the use of the internet has become quite widespread and has become easily accessible to almost everyone. The use of the internet began in the 1970s and spread rapidly after the 1990s, rapidly increasing the number of users with the spread of websites and portals. With the introduction of social media in the 2000s, it has managed to attract the attention of many segments of the society (Beril Akıncı & Mikail,

Cite this article as: Şener, B. S., & Özkaya, H. (2023). Investigation of the relationship between social media addiction and orthorexia nervosa in adult individuals who applied to obesity polyclinic. *Addicta: The Turkish Journal on Addictions*, 10(2), 135-141.

2010). Being interested in social media in large amounts, the desire to always be accessible on social media, having an uncontrollable desire and negative effects of this situation on vital functions are defined as social media addiction (Andreassen & Pallesen, 2014). As can be expressed for all technological addictions, individuals in all age groups cannot be prevented from spending more time on social media than necessary and therefore encountering problems in realizing their individual, social, educational, and professional responsibilities, which can lead to many psychological, physical, and social problems (Şahin & Yağcı, 2017). It is thought that the fact that people can easily reach the lives, food, and drink and body types of other individuals on social media may cause body perception to deteriorate and eating disorders to occur.

Eating disorders are psychiatric disorders that significantly affect physical and psychological functions with a wide range that can start with slight abnormal differences in diet and cause many life-threatening chronic diseases (Arıca et al., 2011). The term "orthorexia nervosa" (ON) was first developed by Steven Bratman in 1997. It was formed by the combination of the Greek words "Orto" (true) and "Orexis" (hunger, appetite). As a result, the concept of orthorexia entered the literature as "Proper and proper nutrition" (Bratman & Knight, 2000). Just like anorexia nervosa, it can cause improper nutrition and or loss of body mass, but unlike anorexia and bulimia nervosa, it is stated that individuals are overly engaged in consuming healthier and purer foods instead of the amount of food eaten and the appearance of a thin body. It is said that, like those with obsessive-compulsive disorder, they spend most of their time preoccupied with strict rules and their social function may gradually decline (Arusoğlu et al., 2008). In some studies, it is stated that the increase in the frequency of social media use increases the incidence of ON (Turner & Lefevre, 2017).

This research aims to investigate whether social media use and/or addiction affects the incidence of ON in obese individuals. Thus, it is aimed to observe the effect of social media use, which is increasing in frequency today, on the nutritional behavior of obese individuals and to inform obese patients about this issue.

Material and Methods

Participants and Procedure

After the approval of the thesis topic and the approval of the ethics committee, 174 participants who were willing to participate in the study and covering the inclusion criteria from obese individuals who applied to Başakşehir Çam Sakura City Hospital Family Medicine Clinic Obesity Polyclinic in the 3-month period between November 1, 2022, and February1, 2023, were included in the study. Inclusion criteria are as follows: to give consent to the participate in the study, to be between the ages of 18 and 65, to have applied to the obesity outpatient clinic, and to have a body mass index (BMI) value of 25 or more. A total of 46 questions including demographic characteristics, weight loss experiences, Social Media Addiction Adult Form Scale (SMBÖ-YF) to measure social media addiction and ORTO-11 scale to investigate ON status were applied to the participants.

Measures

Social Media Addiction Scale Adult Frm

As a result of the exploratory and confirmatory analyses of the SMBO-YF test we used in our study, it was seen that it had 2 Likert types, 2 sub-dimensions (virtual tolerance and virtual communication), and 20 descriptions. The virtual tolerance subdimension from the first article to the 11th article covers the virtual tolerance sub-dimension and the part from the 12th to the 20th article covers the virtual communication sub-dimension. Articles 5 and 11 are scored inversely. The maximum score is 100 and the minimum score is 20. The high score obtained as a result of the scale is interpreted as seeing the person as a "social media addict" (Şahin & Yağci, 2017). This scale, developed by Şahin and Yağcı, consists of 20 questions. While 18 questions on the scale were asked in a positive way, 2 questions were asked in a negative way. The minimum score is 20 points from the scale, and maximum 100 points can be obtained. Higher scores indicate a higher level of social media addiction. The internal consistency coefficient of the scale was found to be 0.940 (Şahin & Yağci, 2017).

Orthorexia Nervosa Scale 11

A 10-question evaluation scale was first developed by Dr. Steven Bratman to determine the susceptibility of the individuals to ON. Working on this scale, Donini and his colleagues developed the 15-question ORTO-15 scale by rearranging some of the questions. This scale is a quadruped Likert-type scale and is scored as 1, 2, 3, and 4, respectively, by selecting one of the always, frequent, sometimes, and never options. Responses that are seen as selective to ON are evaluated as one (Altunkaynak & Özbek, 2006) and responses that indicate healthy eating attitudes are evaluated as four (Beril Akıncı & Mikail, 2010) points. Later, this scale was adapted to Turkish in 2008 by Arusoğlu et al. as ORTO-11 (Arusoğlu et al., 2008). While the Cronbach's alpha value of the original 15-question scale was 0.44, the value of the 11-question ORTO-11 scale was found to be 0.62. In ORTO-11, items 1, 2, 9, and 15 in the original scale are removed and the 8th question is scored inversely. The maximum value that can be taken for ORTO-11 is 44.

Statistical Analysis

In the study, SPSS 25.0 (IBM SPSS Corp.; Armonk, NY, USA) package program was used for data analysis. Descriptive data on the sociodemographic data and various variables of the participants were presented as frequency (N and %) tables. Continuous variables are shown as average $\pm$ SS. When the total and subdimension scores of the scale were examined in terms of normality assumptions, it was determined that some parameters did not show normal distribution (Kolmogorov – Smirnov values $p < .05$). Therefore, Mann – Whitney U test and Kruskal – Wallis H test were used from nonparametric tests to determine whether there was a significant relationship between the total score and sub-dimension scores of the scales that did not show the normal distribution and the sociodemographic data of the participants. If there was a significant difference between the groups, the Games – Howell test was applied to the post-hoc tests to determine which groups had the significance. Spearman correlation analysis was used to determine the relationships between scale total scores, sub-dimension scores, and various variables. The value of $p < .05$ was considered statistically significant.

Results

When the findings obtained in the study were examined, it was determined that most of the participants (41.4%) were in the 18-30 age range, women (67.2%) had higher participation than men (32.8), the rate of single participants was 54.6%, 56.3% were overweight, the rate of those with undergraduate or graduate education level was 58% and most of them (64.9%) had a medium level of income.

In Table 1, minimum, maximum, mean, and SD values of the scores obtained from the scale, and sub-dimensions of the participants are given. Accordingly, the average is taken from the ORTO-11 scale score 28.33 on the CPD-SF scale. The score was found to be 46.47.

In Table 2, the scale and sub-dimension scores made by the participants and the connections between various variables are presented by Spearman correlation analysis. According to the results of this analysis, a statistically significant negative relationship was found between the total score of ORTO-11 and the "virtual communication" score of SMBÖ-YF sub-dimensions (rho = −0.187; $p = .013$). A statistically significant negative relationship was found between the total score of SMBÖ-SFR and age (years) (rho = −0.217; $p = .004$). A statistically significant negative relationship was found between the "virtual tolerance" score and age (years) from the SMBÖ-SFR sub-dimensions (rho = −0.237 $p = .002$).

In Table 3, the results of the analysis of the scale and sub-dimension scores of the participants with the BMI group variable are given. According to the results of this analysis, a statistically significant difference was determined between the "virtual communication" score and the BMI group from the SMBÖ-YF sub-dimensions ($Z = -2.290$ $p = .022$). Those whose BMI group was obese had a higher "virtual communication" score compared to those who were overweight.

Table 1.
Descriptive Statistics of the Scores from the Total and Sub-Dimensions of the Orthorexia Nervosa Scale-11 and SMBÖ-SF Scales

Variables	N	Minimum	Maximum	Place	SS
ORTO-11 Total	174	16.00	38.00	28.33	4.61
SMBÖ Total	174	19.00	100.0	46.47	14.78
SMBÖ virtual tolerance	174	10.00	55.00	27.22	9.03
SMBÖ Virtual communication	174	9.00	45.00	19.24	6.96

Avg, average; N, number; SMBÖ-YF, social media addiction scale adult form; SS, standard deviation.

Table 4 shows that the participants' scale and the sub-dimension scores were "How many hours a day do you spend on average on social media?" The results of the analysis of the comparison in terms of question variables are given. According to the results of this analysis, with the SMBÖ-YF total score, "How many hours a day do you spend on average on social media?" It was seen that there was a statistically significant difference between the question variable (KV = 45.499; $p < .001$). Those who spent more than 4 hours a day on social media on average had a higher total score of SMBÖ-SF than other groups. As a result of the Games – Howell post-hoc test, a statistically significant difference was found between those who spent less than 1 hour on social media on average and those who spent 1 – 4 hours ($p < .001$) and those who spent more than 4 hours ($p < .001$). In addition, it was seen that there was a statistically significant difference between those who spent an average of 1 – 4 hours a day on social media and those who spent more than 4 hours ($p < .001$).

SMBÖ-YF sub-dimensions "virtual tolerance" score and "How many hours a day do you spend on average on social media?" There was a statistically significant difference between the

Table 2.
Results of the Correlation Analysis of the Relationships Between the Total and Sub-Dimension Scores of the Orthorexia Nervosa Scale-11 and SMBÖ-SF Scales Applied to the Participants

		1	2	3	4	5	6
1-ORTO-11 Total	rho	1					
	p						
2-SMBÖ-YF Total	rho	−0.141	1				
	p	.064					
3-SMBÖ-YF-Virtual Tolerance	rho	−0.073	0.931*	1			
	p	.337	<.001				
4-SMBÖ-YF-Virtual Communication	rho	−0.187**	0.863*	.639*	1		
	p	.013	<.001	<.001	.		
5-Age (years)	rho	−0.016	−0.217*	−.237*	−0.146	1	
	p	.837	.004	.002	.055	.	
6-BMI (kg/m²)	rho	−0.041	0.108	0.077	0.123	0.110	1
	p	.588	.157	.314	.106	.150	.

BMI = Body mass index; SMBÖ-YF = Social media addiction scale adult form.*Correlation is meaningful at .01 level (Spearman correlation test); **correlation is meaningful at .05 level (Spearman correlation test).

Table 3.
Comparison of Orthorexia Nervosa Scale-11 and SMBÖ-SF Scales Total and Sub-Dimension Scores in Terms of BMI Group Variable

Variables		*n*	Location ± SS	With	*p*
ORTO-11 total	Overweight	98	28.29 ± 4.28	−0.079	.937
	Obese	76	28.41 ± 5.04		
SMBÖ-YF total	Overweight	98	44.57 ± 13.23	−1.733	.083
	Obese	76	48.93 ± 16.34		
SMBÖ-YF virtual tolerance	Overweight	98	26.37 ± 8.33	−1.175	.240
	Obese	76	28.34 ± 9.82		
SMBÖ-YF virtual communication	Overweight	98	18.20 ± 6.49	−2.290	.022
	Obese	76	20.59 ± 7.36		

Mann – Whitney *U* test, $p < .05$.SMBÖ-YF = Social media addiction scale adult form.

question variable (KV = 42.259; $p < .001$). Those who spend an average of more than 4 hours a day on the internet had a higher "virtual tolerance" score compared to other groups. As a result of the Games – Howell post-hoc test, a statistically significant difference was found between those who spent less than 1 hour on social media and those who spent 1 – 4 hours ($p < .001$) and those who spent more than 4 hours ($p < .001$). In addition, a statistically significant difference was found between those who spent an average of 1 – 4 hours a day on social media and those who spent more than 4 hours ($p < .001$).

"Virtual communication" score, one of the SMBÖ-YF sub-dimensions, and "How many hours a day do you spend on social media on average?" It was seen that there was a statistically significant difference between the question variable (KV = 30.584; $p < .001$). Those who spent an average of more than 4 hours a day on social media had a higher "virtual communication" score compared to other groups. As a result of the Games – Howell post-hoc test, a statistically significant difference was found between those who spent less than 1 hour on social media and those who spent 1 – 4 hours ($p < .001$) and those who spent more than 4 hours ($p < .001$). In addition, it was seen that there was a statistically significant difference between those who spent an average of 1 – 4 hours a day on social media and those who spent more than 4 hours ($p < .001$).

Discussion

One hundred seventeen (67.2%) of the participants were female and 57 (32.8%) were male. In the TURDEP-II study conducted by Istanbul University Faculty of Medicine, Department of Diabetes, Turkish Statistical Institute and Ministry of Health (Satman, 2010), when the distribution of obesity prevalence in Türkiye according to gender was examined, it was seen that it was 27.3% in men and 44.2% in women. According to TUIK data (2019), the obesity rate was 24.8% in women and 17.3% in men, and the overweight rate was determined as 30.4% and 39.7%, respectively. In our study, which included those with a BMI value above 25, the rate of female participants was higher than men can be interpreted as women applying to the obesity polyclinic

Table 4.
ORTO-11 and Social Media Addiction Scale Adult Form Scales' Total and Sub-Dimension Scores "How many hours a day do you spend on average on social media?" Comparison in Terms of Variable

Variables		*n*	Location ± SS	KV	*p*	Post-hoc
ORTO-11 Total	Less than 1 hour	46	28.87 ± 4.23	1.458	.482	–
	1 – 4 seconds	98	28.18 ± 4.33			
	More than 4 hours	30	28.03 ± 5.97			
SMBÖ-YF Total	Less than 1 hour	46	35.57 ± 10.56	45.499	<.001	1<2,3 2<3
	1 – 4 seconds	98	48.10 ± 12.41			
	More than 4 hours	30	57.90 ± 16.84			
SMBÖ-YF-Virtual Tolerance	Less than 1 hour	46	20.63 ± 6.60	42.259	<.001	1<2,3 2<3
	1 – 4 seconds	98	28.22 ± 7.80			
	More than 4 hours	30	34.10 ± 9.73			
SMBÖ-YF Virtual Communication	Less than 1 hour	46	14.93 ± 4.91	30.584	<.001	<2,3 2<3
	1 – 4 seconds	98	19.88 ± 6.08			
	More than 4 hours	30	23.80 ± 8.73			

Kruskal – Wallis H test, post-hoc = Games Howell, $p < .05$.SMBÖ-YF = Social media addiction scale adult form.

more to lose weight and that they are making more efforts about their external appearance.

When the relationship between age and BMI of the participants participating in the study is examined, of the 174 participants, 72 (41.4%) were between the ages of 18 and 30, 42 (24.1%) were in the 31 – 40 age band, 41 (23.6%) were in the 41 – 50 band, and 19 (10.9%) were over 50 years old. Looking at these results, it can be said that the obesity rate of the young population is higher than the elderly population and that the obesity rate decreases with age. In the studies conducted by Doğan et al. (2011) and Hamurcu et al. (2015), it was concluded that obesity increases with increasing age.

In our study, the average score of the participants from the social media addiction scale was found to be 46.47. The average score they received from the virtual tolerance sub-dimension was 27.22 and the average score from the virtual communication sub-dimension was 19.24 (Table 1). In a study conducted on university students in 2021, the mean score of SMBÖ-YF was found to be 51.58 ± 12.42 (Gündoğdu, 2021). In another study conducted on university students, the mean score of SMBÖ-YF was found to be 57.94 ± 12.64 (Koç et al., 2019). We can interpret the fact that the results of these studies are higher than ours as the use of social media by the young population studying at the university.

In our study, it was seen that there was a statistically significant negative relationship between the total score of ORTO-11 and the "virtual communication" score from the SMBÖ-YF sub-dimensions (Table 2). This supports our hypothesis. Although there are not many studies investigating the relationship between social media addiction and ON in the literature, some studies have shown results that support us. In a study conducted by Turner et al., 680 participants specifically examined the links between Instagram and ON symptoms and social media use. As a result of the study, it was concluded that a higher duration of Instagram use increased the tendency to ON and that other social media channels did not have such a great effect (Turner & Lefevre, 2017). In the study in which Klassen and 31 of his friends (2018) investigated the context between their dietary habits and social media use, it was stated that young adults were influenced by healthy recipes and healthy posts on social media. Contrary to our study, a study conducted among university students in 2021 found that there was a negative and weak relationship between ON and social media addiction (Kardaş & Yılmaz, 2021).

A statistically significant negative relationship was found between the total score of SMBS-SFR and age (years) (rho = −0.217; $p = .004$). A statistically significant negative relationship was found between the "virtual tolerance" score and age (year) from the SMBÖ-SF sub-dimensions (rho = −0.237; $p = .002$). Participants whose age was between 18 and 30 years were found to have higher "virtual tolerance" scores from the SMBÖ-SF total score and SMBÖ-YF sub-dimensions compared to other groups (Table 2). With these results, it can be said that young people's social media use and addiction tendencies are more. When we look at the literature, in a study conducted with 194 social media users, it was seen that the time spent on social media decreased as the age increased (Turel & Serenko, 2012). In yet another study, it was found that there was an inverse relationship between age and time spent on social media (Correa et al., 2010). In a study conducted with the participation of 423 students to prepare a Facebook addiction scale, it was stated that age and social media use were inversely proportional (Andreassen et al., 2012). These studies in the literature support our conclusion.

When we looked at the relationship between SMBÖ-SF and BMI in our study, it was found that obese individuals had a higher "virtual communication score compared to those who were overweight. There was no significant relationship between the total score of SMBÖ-SF and BMI (Table 3). In a study conducted with 805 adults in Samsun, there was no statistically significant relationship between BMI and social media addiction in women and men (Küçükcankurtaran, 2022). In a similar study in which body image and social media addiction were investigated in university students, no significant relationship was seen between social media addiction and BMI (Çakmak & Tanrıöver, 2022). In the light of this information, although it is not correct to talk about a relationship between BMI and social media addiction, there are not enough studies in the literature on this subject.

According to our research, there was no statistically significant result between BMI and ORTO-11 score (Table 3). Similar to our study, the study conducted by Arusoğlu et al. (2008) showed no significant relationship between BMI groups and ON. In the study of Öcal et al. (2020), it was concluded that the ORTO-11 score was not statistically significant compared to BMI. Similar to these results, in the researches of Şanlıer et al. (2016) and Soylar et al. (2017), there was no significant difference between the incidence of orthorexia in weak, normal, and obese individuals according to BMI. When the sources in the literature are examined, it is seen that there are different results in this regard. In the study conducted by Bağci Bosi et al. (2007), it was found that the tendency to ON was statistically significantly higher in thin participants compared to those who were overweight. In the research of Gezer and Kabaran (2013), ORTO-11 score was 27.0 ± 4.04 in weak participants, 30.9 ± 4.17 in normal participants, 30.9 ± 4.83 in overweight, and 32.4 ± 4.71 in obese participants, and it was concluded that the incidence of orthorexia decreased as BMI increased. On the contrary, when the relationship between BMI and ORTHO-11 scale was examined in Fidan et al.'s study (2010), it was found that the tendency to orthorexia was statistically significantly higher in overweight and obese participants than in those who were thin.

When we looked at the question "How many hours a day do you spend on social media?", it was determined that 46 of them (26.4%) answered less than 1 hour, 98 of them (56.3%) answered 1 – 4 hours, and 30 of them (17.2%) answered more than 4 hours (Table 4). The total score and sub-dimension scores of SMBÖ-YF were found to be higher than the other groups of participants who spent more than 4 hours a day on social media (Table 4). In a study conducted with individuals between the ages of 16 – 64 in Türkiye, it was determined that the individuals spend an average of 177 minutes on social media daily (Digital, 2022). In a study where the social media addiction of 114 students was investigated, it was determined that 7% of the participants spent 1 hour during the day, 20% spent 1 – 3 hours, 36% spent 3 – 5 hours, and 36% spent at least 5 hours a day on social media, and that students who spent at least 5 hours a day on the Internet had more social media addictions than those who spent 1 – 3 hours on the internet (Farmer, 2018). In another

study conducted with 563 participants in the United States, it was found that the participants spent an average of 397.8 minutes a day on social media (Vannucci et al., 2017). Today, the Internet and social media are easily accessible to everyone, allowing users to spend important parts of their days on social media. We think that this situation may lead to addiction and that precautions should be taken in this regard.

Limitations and Directions/Suggestions for Future Research

Since this survey was conducted in a obesity outpatient clinic, the participants were individuals with a high level of awareness about the subject, mostly female and with a high level of education. We believe that it would be more beneficial to conduct studies with a larger population and with more diverse groups in terms of educational status, financial status, and gender.

The increase in the prevalence of ON with the widespread use of social media is a serious health problem that should not be ignored. The number of studies on ON in our country is limited. More studies should be conducted on this issue, awareness about the content of healthy nutrition and diet recommendation pages should be increased and necessary precautions should be taken.

Ethics Committee Approval: Ethical committee approval was received from the Ethics Committee of Başakşehir Çam ve Sakura City Hospital (Approval no: KAEK/2022-303, Date: 28.09.2022).

Informed Consent: Written informed consent was obtained from the patients who agreed to take part in the study.

Peer-review: Externally peer-reviewed.

Author Contributions: Concept – H.Ö.; Design – B.S.Ş., H.Ö; Supervision – H.Ö.; Resources – B.S.Ş; Materials – B.S.Ş; Data Collection and/or Processing – B.S.Ş.; Analysis and/or Interpretation – B.S.Ş., H.Ö.; Literature Search – B.S.Ş., H.Ö.; Writing – B.S.Ş.; Critical Review – H.Ö.

Declaration of Interests: The authors have no conflict of interest to declare.

Funding: The authors declared that this study has received no financial support.

References

Altunkaynak, B. Z., & Özbek, E. (2006). Obesity: causes and treatment options. *Van Medical Journal*, *13*(4), 138 – 142.

Andreassen, C. S., & Pallesen, S. (2014). Social network site addiction – An overview. *Current Pharmaceutical Design*, *20*(25), 4053 – 4061. [CrossRef]

Andreassen, C. S., Torsheim, T., Brunborg, G. S., & Pallesen, S. (2012). Development of a Facebook addiction scale. *Psychological Reports*, *110*(2), 501 – 517. [CrossRef]

Arıca, S. G., Arıca, V., Arı, M., & Özer, C. (2011). Eating disorders in adolescents. *Mustafa Kemal University Journal of Medicine*, *2*(5), 1 – 10.

Arusoğlu, G., Kabakçı, E., Köksal, G., & Merdol, T. K. (2008). Orthorexia Nervosa and Ortho-11 adaptation of Turkish. *Turkish Journal of Psychiatry*, *19*(3), 283 – 291.

Bağci Bosi, A. T., Camur, D., & Güler, C. (2007). Prevalence of orthorexia nervosa in resident medical doctors in the faculty of medicine (Ankara, Turkey). *Appetite*, *49*(3), 661 – 666. [CrossRef]

Beril Akıncı, V. Z., & Mikail, B. (2010). Social media as a new communication medium: A research on the faculty of communication of Ege University. *Journal of Yasar University*, *20*(5), 3348 – 3382.

Bratman, S., & Knight, D. (2000). *Health food junkies. Ortorexia nervosa: Overcoming the obsession with healthful eating Estados Unidos* (pp. 25 – 38). Broadway Books.

Çakmak, S., & Tanrıöver, Ö. (2022). Is obesity and body perception disturbance related to social media addiction among university students? *Journal of American College Health*, 1 – 8. [CrossRef]

Correa, T., Hinsley, A. W., & de Zúñiga, H. G. (2010). Who interacts on the Web: The intersection of users' personality and social media use. *Computers in Human Behavior*, *26*(2), 247 – 253. [CrossRef]

Digital. (2022). Global Overview Report. https://wearesocial.com/uk/blog/2022/01/digital-2022-another-year-of-bumper-growth-2/

Doğan, N., Toprak, D., & Demir, S. (2011). Prevalence of obesity and related risk factors in Afyonkarahisar. *Turkiye Klinikleri Journal of Medical Sciences*, *31*(1), 122 – 132. [CrossRef]

Farmer, H. (2018). Social media addiction in college students. *MANAS Journal of Social Research*, *7*(4).

Fidan, T., Ertekin, V., Işikay, S., & Kirpinar, I. (2010). Prevalence of orthorexia among medical students in Erzurum, Turkey. *Comprehensive Psychiatry*, *51*(1), 49 – 54. [CrossRef]

Gezer, C., & Kabaran, S. (2013). Risk of orthorexia nervosa among female students of the Department of Nutrition and Dietetics. *SDU Journal of Health Science Institute*, *4*(1), 14.

Gündoğdu, S. (2021). *Examination of procrastination in college students in terms of problematic social media, internet, smartphone use, and personality traits* (Master). https://acikerisim.fsm.edu.tr/xmlui/handle/11352/3856.

Hamurcu, P., Oner, C., Telatar, B., & Yesildag, S. (2015). The effect of obesity on self-esteem and body image. *Turkish Family Hek Derg.*, *199*(3), 122 – 128. Doughnut P, buy meat. The effect of obesity on self-esteem and body image.

Kardaş, İ., & Yılmaz, Y. (2021). *T.C. Istanbul Gelisim University Institute of Graduate Studies Department of Psychology Department of Clinical Psychology The Relationship between Social Media Use and Possible Orthorexia Nervosa Among Istanbul Gelisim University Students* (Master's Thesis). http://acikerisim.gelisim.edu.tr/xmlui/handle/11363/3123.

Klassen, K. M., Douglass, C. H., Brennan, L., Truby, H., & Lim, M. S. C. (2018). Social media use for nutrition outcomes in young adults: A mixed method systematic review. *International Journal of Behavioral Nutrition and Physical Activity*, *15*(1), 70. [CrossRef]

Koç, A., Gökler, M. E., & Bilgehan, T. (2019). Comparison of social media addiction and obsessive selfie behavior in terms of frequency of social media use in university students. *Yeni Symposium*, *57*(4), 15 – 20.

Küçükcankurtaran, S. (2022). Evaluation of the relationship between social media addiction in adult individuals with anthropometric measurements and food consumption. *Selcuk Health Journal*, *3*(3), 255 – 269. https://dergipark.org.tr/en/pub/ssd/issue/74628/1186521

Öcal, E. E., Ünsal, A., Demı˙rtaş, Z., Emı˙ral, G. Ö.,. & Arslantas, D. (2020). Evaluation of orthorexia nervosa and social appearance anxiety in research assistants. *Cumhuriyet University Journal of Institute of Health Sciences*, *5*(2), 49 – 59.

Şahin, C., & Yağcı, M. (2017). Sosyal medya bağımlılığı Ölçeği- yetişkin formu: Geçerlilik ve Güvenilirlik çalışması. *Ahi Evran Üniversitesi Kırşehir Eğitim Fakültesi Dergisi*, *18*(1), 523 – 538.

Şanlıer, N., Yassibas, E., Bilici, S., Sahin, G., & Celik, B. (2016). Does the rise in eating disorders lead to increasing risk of orthorexia nervosa? Correlations with gender, education, and body mass index. *Ecology of Food and Nutrition*, *55*(3), 266 – 278. [CrossRef]

Satman, İ. (2010). *Summary of TURDEP-II results.* On behalf of the Working Group, Prof. Dr. İlhan Satman.

Soylar, P., Kadioglu, B., & Uncu, F. (2017). The risk of orthorexia in Turkish adults and relation with body mass index. *European Journal of Public Health*, *27*(Suppl. 3), 329. [CrossRef]

TEMD. (2019). *Obesity Diagnosıs and Treatment Guide Turkish Society of © Endocrinology and Metabolism ISBN: 978-605-4011-31-5 8.* Edition: April 2019 (Just like edition).

Turel, O., & Serenko, A. (2012). The benefits and dangers of enjoyment with social networking websites. *European Journal of Information Systems*, *21*(5), 512 – 528. [CrossRef]

TURKSTAT. (2019). *Turkey Health Survey.* https://data.tuik.gov.tr/Bulten/

Turner, P. G., & Lefevre, C. E. (2017). Instagram use is linked to increased symptoms of orthorexia nervosa. *Eating and Weight Disorders: EWD*, *22*(2), 277 – 284. [CrossRef]

Vannucci, A., Flannery, K. M., & Ohannessian, C. M. (2017). Social media use and anxiety in emerging adults. *Journal of Affective Disorders*, *207*, 163 – 166. [CrossRef]

WHO Consultation on Obesity. (1999). *Obesity: Preventing and managing the global epidemic: Report of a WHO consultation* (WHO technical report series; 894). WHO.