



RESEARCH ARTICLE / ARAŞTIRMA YAZISI

# The Relationship Between Orthorexia Nervosa Tendencies, Eating Attitudes, and Obsessive Compulsive Symptoms of Nursing Students: A Cross-Sectional Study

## Hemşirelik Öğrencilerinin Ortoreksia Nervosa Eğilimleri, Yeme Tutumları ve Obsesif Kompulsif Belirtiler Arasındaki İlişki: Kesitsel Bir Çalışma

Aynur Bahar<sup>1</sup>, Döndü Çuhadar<sup>1</sup>

### Abstract:

At the start of university education, young people tend to disregard healthy eating recommendations, overeat or eat unhealthily, follow strict diets, and skip meals. For these reasons, eating disorders are more frequently observed among university students. This study was conducted to evaluate the orthorexic tendencies of nursing students and to determine the relationship between eating attitudes and obsessive symptoms. The study sample consisted of 209 nursing students. The Personal Information Form, Orthorexia Nervosa Scale, Eating Attitudes Test, and Maudsley Obsessive-Compulsive Questionnaire were administered by the researchers. Descriptive analyses, Mann-Whitney U test, Kruskal-Wallis test, correlation, and regression analyses were used to evaluate the data. The mean scores for the ORTO-11 scale were  $28.72 \pm 4.84$ ; the YTT-26 scale was  $8.51 \pm 8.20$ ; and the MOKSL was  $16.21 \pm 7.66$ . Evaluations based on the total scale scores revealed a negative, low-level, and significant correlation between ORTO-11 and YTT-26; a negative, moderate-level, and significant correlation between ORTO-11 and MOKSL; and a positive, low-level, and significant correlation between YTT-26 and MOKSL. This study, it was revealed that obsessive-compulsive habits and eating attitude disorder may affect orthorexia. Screening and early detection of eating disorders is important as it will provide an early treatment option. It is recommended to conduct screenings for students to prevent physical and psychological complications.

**Keywords:** Orthorexia Nervosa, Eating Attitude, Obsessive Compulsive Symptoms.

<sup>1</sup>Gaziantep University, Health Science Faculty, Department of Nursing, Psychiatric Nursing Department, Gaziantep, Türkiye.

**Address of Correspondence/Yazışma Adresi:** Aynur Bahar, Gaziantep University, Health Science Faculty, Department of Nursing, Psychiatric Nursing Department, Gaziantep, Türkiye, E-mail: abahar@gantep.edu.tr.

**Date of Received/Geliş Tarihi:** 03.01.2024, **Date of Revision/Düzeltilme Tarihi:** 02.03.2026, **Date of Acceptance/Kabul Tarihi:** 09.03.2026, **Date of Online Publication/Çevrimiçi Yayın Tarihi:** 25.03.2026

**Citing/Referans Gösterimi:** Bahar, A. & Çuhadar, D. (2026). The Relationship Between Orthorexia Nervosa Tendencies, Eating Attitudes, and Obsessive Compulsive Symptoms of Nursing Students: A Cross-Sectional Study, *Cyprus Turkish Journal of Psychiatry & Psychology*, 8(1), 74-81, Doi:10.35365/ctjpp.26.1.10

© 2026 The Author(s). Published by Cyprus Mental Health Institute / Cyprus Turkish Journal of Psychiatry and Psychology (www.ktppdergisi.com). This article is an open-access article distributed under the terms and conditions of the Creative Commons Attribution 4.0 license, which permits use, sharing, adaptation, distribution, and reproduction in any medium or format, provided the original work is properly cited and is not used for commercial purposes. <http://creativecommons.org/licenses/by/4.0/>

**Öz:**

Üniversite eğitiminin başlamasıyla birlikte gençler sağlıklı beslenme önerilerine uymamakta, aşırı veya dengesiz beslenmekte, sıkı diyetler yapmakta ve öğün atlama davranışı göstermektedirler. Bu nedenlerden dolayı üniversite öğrencilerinde yeme davranışı bozuklukları daha sık görülebilmektedir. Bu çalışma hemşirelik öğrencilerinin ortoreksik eğilimlerini değerlendirmek ve yeme tutumları ile obsesif semptomlar arasındaki ilişkiyi belirlemek amacıyla yapılmıştır. Çalışmanın örneklemini 209 hemşirelik öğrencisi oluşturmuştur. Araştırmacılar tarafından Kişisel Bilgi Formu, Ortoreksiya Nervoza Ölçeği, Yeme Tutumu Testi ve Maudsley Obsesif Kompulsif Soru Listesi uygulanmıştır. Veriler betimsel analizler, Mann-Whitney U testi, Kruskal-Wallis testi, korelasyon ve regresyon analizi ile test edilmiştir. ORTO-11 ölçeği puan ortalaması  $28.72 \pm 4.84$ ; YTT-26 ölçeği puan ortalaması  $8.51 \pm 8.20$ ; MOKSL puan ortalaması  $16.21 \pm 7.66$  olarak saptanmıştır. Ölçek toplam puanları ile yapılan değerlendirmelerde, ORTO-11 ile YTT-26 ölçekleri arasında negatif yönde, düşük düzeyde ve anlamlı; ORTO-11 ile MOKSL arasında negatif yönde, orta düzeyde ve anlamlı; ve YTT-26 ile MOKSL arasında ise pozitif yönde, düşük düzeyde ve anlamlı korelasyon bulunmuştur. Bu çalışmada obsesif-kompulsif alışkanlıkların ve yeme tutumu bozukluğunun ortoreksiyayı etkileyebileceği ortaya konmuştur. Yeme bozukluklarının taranması ve erken tespiti erken tedavi seçeneği sağlayacağı için önemlidir. Oluşabilecek fiziksel ve psikolojik komplikasyonları önlemek amacıyla öğrencilere tarama yapılması önerilmektedir.

**Anahtar Kelimeler:** Ortoreksiya Nervoza, Yeme Tutumu, Obsesif-Kompulsif Belirtiler.

**Introduction**

Orthorexia Nervosa (ON) is a concept that has not yet been included in the official classification systems expressing pathological fixation related to the consumption of healthy food and has just begun to be investigated in the literature (Donini et al. 2004). In orthorexia nervosa, the person controls everything (s)he eats in an exaggerated way. They prefer to eat at home, obsessed with the fact that food is additive-free (Şengül and Hocaoğlu, 2019). As a result, a decrease in social relations and an increase in obsessive behaviors, such as excessive worrying about food, are observed. According to research findings, individuals with eating attitudes got lower scores from the orthorexia nervosa scale (ORTO-11); that is, they may show higher orthorexic tendencies (Arusoğlu et al., 2008). Donini et al. (2004) reported the frequency of orthorexia, which they fanatically defined as healthy eating habits, in addition to obsessive-compulsive personality trait, as 6.9% of the general population. Fidan et al. (2010) found the frequency of orthorexia in medical students to be 43.6%. Women, adolescents, athletes, and dietitians are reported to be high-risk groups for orthorexia nervosa (Arslantaş et al., 2017). Students who receive health education, who give importance to proper nutrition, and who are worried about getting fat are among the groups with a higher tendency to orthorexia (Korinth et al., 2010). When overlapped with obsessive-compulsive disorder, individuals in ON show some obsessive tendencies. In these individuals, symptoms such as recurrent and intervening intrusive thoughts about food and health, intense worry about contamination and filth, and ritualistic behavior while arranging and eating food are observed. The content of the obsessions in orthorexia is compatible with the ego, and in this respect, it differs from obsessive-compulsive disorder (Koven and Abry, 2015). At the beginning of university education, young people do not follow healthy nutrition recommendations, eat excessive or unbalanced diets, follow strict diets, and exhibit behavior such as skipping meals. For these reasons, eating behavior disorders can be seen more frequently in university students (Arslan et al., 2016). Since it is a new concept, there is no universally accepted definition, and no valid diagnostic criteria exist (Şengül and Hocaoğlu, 2019). Sufficient knowledge about orthorexia has not been reached in the literature yet. This

study was conducted to evaluate the orthorexia tendencies of nursing students, one of the risk groups for orthorexia, and to determine the relationship between eating attitudes and obsessive symptoms. University students are vulnerable to nutritional issues. Because they are in a critical period where they take responsibility for their eating habits. In addition, this period is critical for body image development. Considering that the behaviors developed during this period continue into adulthood, this study is important for determining risk factors, providing early diagnosis, and guiding treatment. To date, there is no data on eating disorders in the relevant department of the university where the study was conducted. The fact that body mass index, an important indicator in eating disorders, is also addressed in this study makes the study important.

**Research Questions**

Is there a significant relationship between Orthorexia Nervosa and Eating Attitudes and Obsessive Compulsive Symptoms in university students?

Do students' Orthorexia Nervosa scores differ significantly according to their eating attitudes and obsessive-compulsive symptoms?

Also, do these variables show significant differences across sociodemographic groups?

Are Obsessive Compulsive Disorder, Orthorexia Nervosa, and Eating Disorders related to body mass index?

**Method**

The research has cross-sectional and relational characteristics. The research universe consists of nursing students. Sample size was calculated using G\*Power. In the power analysis, the confidence interval was calculated as  $\alpha=0.05$ , the power of the test ( $1-\beta$ ) was 0.95, and a total of 203 (Duran, 2016). The study was conducted on a voluntary basis. Volunteer students who met the study criteria were included. The study was completed with 209 students.

**Data Collection**

Research data was collected online between 01 April and 15 May 2023. The research was conducted with students aged 18 and over who volunteered to participate. Then, the Personal Information Form, the Orthorexia Nervosa Scale, the Eating Attitudes Test, and the Maudsley Obsessive-Compulsive Questionnaire were administered.

**Personal Information Form**

The Personal Information Form comprises questions to assess students' sociodemographic characteristics and nutritional habits.

**Eating Attitude Test-26 (EAT-26)**

The Eating Attitudes Test (EAT) is a test developed by Garner and Garfinkel (1979) to assess abnormal eating attitudes in individuals. The eating attitude test assesses predisposition and attitudes related to disordered eating behavior at the clinical level. The original scale consists of 40 items and 7 sub-dimensions, each evaluated on a 6-point Likert-type scale ranging from 0 (always) to 5 (never). The validity and reliability study of EAT-40 in Turkey was done by Savaşır and Erol (1989). The short form of the test, EAT-26, was adapted into Turkish by Ergüney-Okumuş and Sertel-Berk (2020) and was found to be a reliable scale for use in the general population. Cronbach's Alpha 0.84 of EAT-26. In this study, the alpha value was 0.82.

**Orthorexia Nervosa Scale (ORTO-11)**

Donini et al. (2004) developed ORTO-15, a brief 10-item orthorexia questionnaire based on Bratman's (2000) brief 10-item orthorexia questionnaire (Arusoğlu et al., 2008). The original version of the scale was developed in Italy. The ORTO-15 test, adapted into Turkish by Arusoğlu et al. (2008), was updated to ORTO-11. On the scale in which the individuals were rated both emotionally and rationally, the "cognitive rational domain," "clinical

domain," and "emotional domain" are examined. Low scores from the scale indicate orthorexic tendency. The Cronbach Alpha of the scale was 0.62 (Arusoğlu et al., 2008), and in this study, the alpha is 0.82.

**Maudsley Obsessive Compulsive Question List (MOCQL)**

Scale created by Hodgson and Rachman (1977) to investigate the level and type of obsessive-compulsive symptoms; it consists of the following subscales: cleanliness, doubt, control, and slowness. Adaptation to Turkish was made by Erol and Savaşır (1988). Items are evaluated as true and false, and the correct option is scored as 1 and the wrong option as 0. Only item 11 is reverse-scored. The maximum values are 37 for obsession, 9 for controlling, 11 for cleanliness, and 7 for slowness and doubt. Items related to control: 2, 6, 8, 14, 15, 20, 22, 26, 28; cleaning-related items: 1, 4, 5, 9, 13, 17, 19, 21, 24, 26, 27; articles about slowness: 2, 4, 8, 16, 23, 25, 29; doubt-related items: 3, 7, 10, 11, 12, 18, 30; Items related to rumination are as follows: 2, 8, 31, 32, 33-37. The Cronbach Alpha coefficient is .86 for the whole scale (Erol and Savaşır, 1988; Aydemir and Köroğlu, 2009). In this study, the Cronbach's Alpha was 0.88.

**Analysis of Data**

IBM SPSS Statistics 22.0 (New York) program was used in the analysis of the data. The Shapiro-Wilk test was used to assess normality. Number, percentage, arithmetic mean, Kruskal-Wallis test, Mann-Whitney U test, correlation, and regression analysis were used to analyze the data.

**Ethics of The Research**

Before starting the research, written permission was obtained from the local clinical research ethics committee (Decision date: 18.01.2023; Decision no: 2023/16) and the institution where the research was conducted.

**Table 1.** Distribution of Students' Introductory Characteristics

		n	%
<b>Age</b>	18-21 age	130	62.2
	22 and over	79	37.8
<b>Grade</b>	1.	36	17.2
	2.	58	27.8
	3.	92	44.0
	4	23	11.0
<b>Gender</b>	Female	145	69.4
	Male	64	30.6
<b>Kaldığı yer</b>	Home	108	51.7
	Dormitory	101	48.3
<b>Smoking</b>	Yes	37	17.7
	No	172	82.3
<b>Alcohol use</b>	Yes	12	5.7
	No	197	94.3
<b>Chronic disease</b>	Yes	14	6.7
	No	195	93.3

<b>Meal order</b>	Regular	62	29.7
	Partly regular	84	40.2
	Irregular	63	30.1
<b>Doing regular exercise</b>	Yes	26	12.4
	No	183	87.6
<b>Status of taking nutritional supplements</b>	Using	14	6.7
	Used in the past	40	19.1
	Never used	155	74.2
<b>Dieting status</b>	Yes	30	14.4
	No	179	85.6
<b>Healthy nutrition information</b>	Yes	178	85.2
	No	31	14.8
<b>Weight assessment status</b>	I am overweight	32	15.3
	I am of normal weight	140	67.0
	I am underweight	37	17.7
<b>Body Mass Index (BMI)</b>	18.5 above underweight	19	9.1
	18.5-24.9 Normal	151	72.3
	25-29.9 overweight	35	16.7
<b>Total</b>		<b>209</b>	<b>100,0</b>

Table 1 includes the introductory characteristics of the students. The mean age of the students is 21.23±2.5 (min: 18, max: 43), and 62.2% of them are between the ages of 18 and 21. 3rd-grade students constitute 44% of the participants, and females constitute 69.4%. 51.7% of the students stay at home with their family or friends, and 48.3% stay in the dormitory. In addition, alcohol (5.7%) and cigarette (17.7%) use rates are low. 6.7% of the students have a conical disease (4 students with mental illness, 3 with Diabetes Mellitus, 3 with Multiple Sclerosis, 2 with Asthma, 2 with Gastrointestinal Ulcer). 40.2% of the students reported that their meals were partially regular, and mostly (87.6%) they did not exercise

regularly. 74.2% of the students did not take any nutritional supplements, and 85.6% did not diet at all. 85.2% of the students had knowledge about healthy nutrition. When asked to evaluate their weight, 67% stated they were of normal weight, and 72.3% had a BMI within normal limits. In the statistical analysis, the data were not normally distributed ( $p < 0.05$ ).

### Results

ORTO-11 mean score was 28.72±4.84; EAT-26 scale mean score was 8.51±8.20; The mean MOCQL score was found to be 16.21±7.66 (Table 2).

**Table 2.** Distribution of ORTO-11, EAT- 26, and MOCQL Scales Score Averages

	<b>n</b>	<b>Min.</b>	<b>Max</b>	<b>Mean±SD</b>
<b>ORTO-11 Total</b>	209	16	41	28.72±4.84
<b>EAT-26 Total</b>		0	38	8.51±8.20
<b>Diet</b>	209	0	23	4.40±5.04
<b>Bulimia/eating obsession</b>		0	13	1.55±2.42
<b>Oral controls</b>		0	13	2.55±2.81
<b>MOCQL Total</b>		1	33	16.21±7.66
<b>Controlling</b>		0	9	3.07±2.30
<b>Cleaning</b>		0	10	4.89±2.38
<b>Slowness</b>	209	0	7	2.43±1.79
<b>Doubt</b>		0	7	3.42±1.71
<b>Rumination</b>		0	9	4.33±2.72

Correlations between the scales are given in Table 3. In the evaluations made with the scale total scores, there was a negative, low, and significant difference between the ORTO-11 and EAT-26 scales ( $r=-.261$ ;  $p=.000$ ); Negative, moderate, and significant difference between ORTO-11 and MOCQL ( $r=-.324$ ;  $p=.000$ ); A positive, low and significant ( $r=.216$ ;  $p=.002$ ) relationship was found

between EAT-26 and MOCQL. As a result of the statistical analysis, a low-level, positive, and significant relationship was found between BMI and mean EAT-26 scores ( $p < 0.05$ ). There was no significant difference in mean scores between ORTO-11 and MOCQL according to BMI values ( $p>0.05$ ).

**Table 3.** Correlations Between ORTO-11, EAT- 26 and MOCQL Scales Scores

	Test and P value	ORTO-11 Total	EAT-26 Total	MOCQL Total	BMI
<b>ORTO Total</b>	r	1			
	p				
<b>EAT Total</b>	r	-.261*	1		
	p	.000			
<b>MOCQL Total</b>	r	-.324*	.216*	1	
	p	.000	.002		
<b>BMI</b>	r	-.031	.187*	.048	1
	p	.658	.007	.489	

**Table 4.** Comparison of Scale Score Means and Some Variables

Charecteristics	ORTO-11	EAT-26	MOCQL
<b>Doing regular exercise</b>			
<b>Yes</b>	29.50±4.13	8.76±8.81	12.76±6.77
<b>No</b>	28.28±4.81	8.47±8.14	16.69±7.67
	Z=-0.485	Z=-0.035	Z=-2.633
	p=0.628	p=0.972	p=0.008
<b>Healthy nutrition information</b>			
<b>Yes</b>	28.45±4.80	8.61±8.40	19.09±6.85
<b>No</b>	28.32±4.48	7.90±7.06	15.70±7.70
	Z=-1.185	Z=-0.056	Z=-2.379
	p=0.236	p=0.955	p=0.017
<b>Meal order</b>			
<b>Regular</b>	28.37±4.38	8.50±8.68	13.87±7.26
<b>Partly regular</b>	29.00±3.77	8.04±7.90	16.26±6.47
<b>Irregular</b>	28.69±6.36	9.14±8.20	18.44±8.85
	X <sup>2</sup> =1.302	X <sup>2</sup> =1.338	X <sup>2</sup> =11.561
	p=0.521	p=0.512	p=0.003
<b>Weight assessment status:</b>			
<b>Overweight</b>	27.65±5.03	12.84±11.5	16.06±7.44
<b>Normal weight</b>	28.80±4.70	7.67±7.66	16.33±7.70
<b>Underweight</b>	27.70±4.61	7.91±5.21	15.86±7.88
	X <sup>2</sup> =0.207	X <sup>2</sup> =6.313	X <sup>2</sup> =0.193
	p=0.902	p=0.043	p=0.908

Table 4 shows a comparison of some student features and their scale mean scores. Since it was determined that homogeneity was not achieved in the study group ( $p < 0.05$ ), nonparametric analyses were used. The analyses were performed with all student characteristics, but they were not shown in the table because the results were insignificant ( $p > 0.05$ ). Considering the variables in the

table, no significant difference was found between the ORTO-11 scale and students' characteristics ( $p > 0.05$ ). The difference between students' self-assessments of weight and the EAT-26 scale was significant ( $p < 0.05$ ). The differences between regular exercise, knowledge of healthy nutrition, meal order, and the MOCQL scale were significant ( $p < 0.05$ ).

**Table 5.** The Effect of Eating Attitude Level and Obsessive Compulsive Symptoms on Orthorexia Nervosa Tendency

Model*	Unstandardized Coefficients		Standardized Coefficients	R	R <sup>2</sup>	t	p
	B	Std.Error	Beta				
Constant	29.142	.796	-			36.604	.001
EAT	-.016	.041	-.028	.068	.005	-.392	.695
MOCQL	-.035	.044	-.057			-.796	.427

\*Multivariate Regression Analysis

In the study, it was determined that each score obtained from scales changed orthorexia scores by EAT: -.016 and MOCQL: -.035, respectively. As a result, it can be said that eating attitude level and obsessive-compulsive symptom level do not affect the students' Orthorexia Nervosa levels (Table 5).

## Discussion

Although Orthorexia Nervosa is not defined as a psychiatric disorder, it is usually associated with a significant deterioration (Duran, 2016). In fact, it can be considered a disorder when non-pathological healthy eating habits become overwork, are long-term, and cause negative effects on daily life (Donini et al., 2004). While individuals in orthorexia initially aim to improve health, treat disease, or lose weight, diet becomes the most important part of their lives (Chaki et al., 2013). Risk groups for orthorexic behaviors include women, adolescents, athletes, medical students, health workers, and dietitians. Nursing students studying in the health field are also at risk. From this perspective, this study was conducted with nursing students, who will represent an important health group. Almost half of the participating students were 3rd graders. In a study, a low negative correlation was found between Orthorexia Nervosa and eating attitude. As the scores on the ORTO-11 scale decreased, the disorder's susceptibility increased; although the correlation coefficient was negative, it was interpreted as positive. This situation is based on the evaluations. In this study, it was found that as deterioration in eating attitudes increased, the level of orthorexic symptoms also increased. Both eating disorders and orthorexia are characterized by a lack of pleasure associated with eating. Individuals exhibit a need to control food intake to improve their self-esteem, which, in turn, gives them a sense of control over their own lives (Segura-Garcia et al., 2014). The same results are noteworthy in studies examining the relationship between eating attitude and orthorexic symptoms (Arusoğlu et al., 2008; Duran et al., 2016; Varga et al., 2013; Arslantaş et al., 2017; Demir and Savucu, 2022). It has been reported in the literature that a high level of obsessive-compulsive symptoms can predict orthorexic tendencies (Arusoğlu, 2008). As a result of the research, it was found that there was a statistically significant relationship between the students' obsessive-compulsive symptom mean scores and Orthorexia Nervosa scores, and as the severity of obsessive-

compulsive symptoms increased, the students' tendency towards Orthorexia Nervosa also increased. These results were found to be compatible with the literature (Evcimen et al., 2020; Yazkan and Uğurlu, 2022; İnce Palamutoğlu and İnce Yenilmez, 2021). Orthorexia Nervosa has some similarities to obsessive-compulsive disorder, such as spending most of the time following rigid rules and preoccupations, having intrusive thoughts about food and health, and engaging in compulsive behaviors when preparing and eating food (Plichta et al., 2020; Koven and Abry, 2015). In one study, Orthorexia Nervosa was classified as a manifestation of obsessive-compulsive disorder (Lucka et al., 2019). It has been suggested by Dunn and Bratman (2016) that orthorexic individuals may exhibit compulsive behaviors and mental preoccupations towards restrictive dietary strategies that they believe will maximize their health. These findings support the literature. In the study, the relationship between obsessive-compulsive symptoms and eating attitude was found to be positive and significant. It was determined that as the deterioration in the eating attitude of the students increased, there would be an increase in the level of obsessive-compulsive disorder symptoms. 14.4% of the students in this study reported being on a diet. It is thought that individuals who pay attention to their diets show a more prescriptive behavior over time, which may cause an increase in obsessive symptom tendencies. These findings are consistent with the literature (Duran, 2016; Çelikel et al., 2009) and support the link between obsessive-compulsive symptoms and eating attitudes. When we predicted the Orthorexia Nervosa variable, which we accepted as the dependent variable in the regression model we established, no significance was found. This situation may be due to the small number of our samples. BMI is an important variable associated with eating disorders. It was determined that 72.3% of students were within the normal range according to the BMI variable. In addition, a positive and significant relationship was found between students' BMI values and their eating attitude scores, indicating that as students' BMI increased, their eating problems also increased. 87.6% of the students in this study reported not exercising regularly. Regarding BMI, our results failed to find a significant correlation for Orthorexia Nervosa with obsessive-compulsive symptoms, a finding that supports most previous studies performed in different populations (Parra-Fernández et al., 2018; Brytek-Matera et al., 2014).

Obsessive-compulsive symptom scores for students who reported not exercising were significantly higher. Considering the positive contribution of exercise in coping with anxiety, the result is not surprising. In this context, it would be useful to plan training sessions that emphasize the importance of relaxation and exercise in reducing anxiety for students. The majority of the students in this study (85.2%) have received nutrition education and have healthy nutrition knowledge. When healthy nutrition knowledge and scale comparisons were made, it was found that students' obsessive-compulsive symptoms were significantly higher in those who received education. It has been reported that nutrition obsessions can develop among individuals who receive nutrition education (Duran, 2016; Alvarenga et al., 2012). This finding is consistent with the literature. Regular meals, meal frequency, and skipping meals are observable factors of healthy nutrition. Adequate and balanced nutrition can be achieved with regular meal habits (Mattson et al., 2014). 40.2% of the students in this study reported having partially regular meal habits, and 30.1% reported irregular meal habits. Only 29.2% of the students reported regular meal habits. Mean scores on obsessive-compulsive symptoms for students reporting irregular eating habits were higher and statistically significant. These results may be an indication that involuntary eating behaviors may develop to suppress negative emotions, reduce anxiety, and cope. The mean eating attitude scores of students who evaluated their weight as overweight were significantly higher. In order for this situation not to cause eating disorders, students' weight concerns should be addressed, and students should be supported with flexible diet programs.

## Conclusion

Being obsessed with healthy eating can become a disorder that affects personality and behavioral dimensions after a certain period of time. This study showed that obsessive-compulsive habits and eating disorders may influence orthorexia. Similarly, a higher risk of orthorexia nervosa may be associated with a higher risk of obsessive-compulsive disorder and eating problems. The existence of a relationship between eating behavior problems, obsessive symptoms, and ON reveals the need to take precautions in this regard. A higher risk of orthorexia nervosa may be associated with a higher risk of obsessive-compulsive disorder and eating problems. For this reason, screening and early detection of eating disorders are important as they provide an early treatment option. It is

recommended that screenings be conducted to prevent physical and psychological problems among students. In addition, it would be appropriate to conduct conferences and seminars for students on orthorexia so that healthy eating does not turn into an obsession. Cultural differences should be taken into consideration when planning individual or community training. There is a need for comprehensive studies using various sample groups on Orthorexia Nervosa, a concept that is just beginning to gain ground in the literature. In the future, more studies should be conducted to evaluate the points that require resolution in clinical treatment for individuals thought to have orthorexic characteristics. It may also be important to reveal the factors that may cause individuals with orthorexia to need to eat natural foods and teach them how to cope.

## Limitations

This study encountered some limitations. First, this sample consisted mainly of female students. Secondly, due to the cross-sectional nature of the study, causality of the relationships could not be evaluated. Third, current results are based on self-reports, which may be subject to potential bias.

## Declarations

### Ethical Approval

The research protocol was submitted to the Gaziantep University Ethics Committee and approved (Approval number 18.01.2023/16). Patients who agreed to participate in the study gave written consent. All procedures were carried out in accordance with ethical principles and the Declaration of Helsinki.

### Permission to Publish

Not Applicable.

### Availability of Data and Materials

Not Applicable.

### Conflict of Interest

The authors declare that they have no conflict of interest.

### Funding

Not Applicable.

### Author Contributions

Study design: AB, DÇ; Data collection: AB; Data analysis: AB; Manuscript writing: DÇ, AB. All authors have read and approved the final version of the article.

## References

- Alvarenga, M. S., Martins, M. C., Sato, K. S., Vargas, S. V., Philippi, S. T., & Scagliusi, F. B. (2012). Orthorexia nervosa behavior in a sample of Brazilian dietitians assessed by the Portuguese version of ORTO-15. *Eating and Weight Disorders*, 17, e29-35. <https://doi.org/10.1007/BF03325325>.
- Arslan, S. A., Daşkapan, A. & Çakır, B. (2016). Üniversite öğrencilerinin beslenme ve fiziksel aktivite alışkanlıklarının belirlenmesi. *Türk Silahlı Kuvvetleri Koruyucu Hekim Bul*, 15(3), 171-180. <https://doi.org/10.5455/pmb.1-1436432564>
- Arslantaş, H., Adana, F., Ögüt, S., Ayakdaş, D. & Korkmaz, A. (2017). Hemşirelik öğrencilerinin yeme davranışları ve ortoreksiya nervoza (sağlıklı beslenme takıntısı) ilişkisi: kesitsel bir çalışma. *Turkish Journal of Psychiatry*, 8(3), 137-144. <https://doi.org/10.14744/phd.2016.36854>.
- Arusoğlu, G., Kabakçı, E., Köksal, G. & Merdol, T. K. (2008). Orthorexia Nervosa and adaptation of ORTO-11 in Turkish. *Turkish Journal of Psychiatry*, 19, 283-291. Turkish. PMID: 18791881.
- Aydemir, Ö. & Köroğlu, E. (2009). *Psikiyatride Kullanılan Klinik Ölçekler*. (4.Baskı). Ankara: Hekimler Yayın Birliği, 288-291. ISBN-10: 9753001258.
- Brytek-Matera, A., Krupa, M., Poggiogalle, E., Donini, L. M. (2014). Adaptation of the ORTHO-15 test to polish women and men. *Eat Weight Disord*, 19, 69-76. <https://doi.org/10.1007/s40519-014-0100-0>.
- Chaki, B., Pal, S. & Bandyopadhyay, A. (2013). Exploring the scientific legitimacy of orthorexia nervosa: A newly emerging eating disorder. *Journal of Human Sport and Exercise*, 8, 1045-1053. <https://doi.org/10.4100/jhse.2013.84.14>.
- Çelikel, F. Ç., Bingöl, T. Y., Yıldırım, D., Tel, H. & Erkorkmaz, Ü. (2009). Eating attitudes in patients with obsessive-compulsive disorder. *Nöropsikiyatri Arşivi*, 46(3), 86-90. Dergi ISSN: 1300-0667.

- Demir, G. & Savucu, Y. (2022). Üniversite öğrencilerinde ortoreksiya nervosa sıklığının belirlenmesi (spor bilimleri fakültesi örneği). *Spor Eğitim Dergisi*, 6(1), 1-13. <https://doi.org/10.55238/seder.1001872>.
- Donini, L. M., Marsili, D., Graziani, M. P., Imbriale, M. & Cannella, C. (2004). Orthorexia nervosa: a preliminary study with a proposal for diagnosis and an attempt to measure the dimension of the phenomenon. *Eating and Weight Disorders*, 9,151-7. <https://doi.org/10.1007/BF03325060>.
- Dunn, T. M., Bratman, S. (2016). On orthorexia nervosa: A review of the literature and proposed diagnostic criteria. *Eat Behav*, 21,11-7. <https://doi.org/10.1016/j.eatbeh.2015.12.006>.
- Duran, S. (2016). The risk of orthorexia nervosa (healthy eating obsession) symptoms for healthy high school students and the factors affecting them. *Pamukkale Medical Journal*, 9, 220-6. <https://doi.org/10.5505/ptd.2016.03880>.
- Duran, S., Ergun, S., Çalışkan, T. & Karadaş, A. (2016). Hemşirelik öğrencilerinin yeme tutumları ile problem çözme becerileri arasındaki ilişki. *Sürekli Tıp Eğitimi Dergisi*, 25, 6-12. Dergi ISSN: 1300 0853.
- Ergüney-Okumuş, F. E. & Sertel-Berk, H. Ö. (2020). Yeme Tutum Testi kısa formunun (YTT-26) üniversite örnekleminde Türkçeye uyarlanması ve psikometrik özelliklerinin değerlendirilmesi. *Psikoloji Çalışmaları*, 40(1), 58-77. <https://doi.org/10.26650/SP2019-0039>.
- Erol, N. & Savaşır, I. (1988). *Maudsley Obsesif-Kompulsif Soru Listesi*. XXIV. Ulusal Psikiyatri ve Nörolojik Bilimler Kongresi Bildiri Kitabı, Ankara, GATA Basımevi, s.107-114. [https://www.bilisseldavranisci.com/uploads/maudsley\\_a.pdf](https://www.bilisseldavranisci.com/uploads/maudsley_a.pdf)
- Evcimen, H. & Ayyıldız İşcan, N. (2020). Üniversite öğrencilerinin ortoreksiya nervosaya olan eğilimlerinin obsesyonla ilişkisinin belirlenmesi. *ESTÜDAM Halk Sağlığı Dergisi*, 5(3), 391-400. <https://doi.org/10.35232/estudamhsd.691686>
- Fidan, T., Ertekin, V., Işıkay, S. & Kirpınar, I. (2010). Prevalence of orthorexia among medical students in Erzurum, Turkey. *Comprehensive Psychiatry*, 51,49-54. <https://doi.org/10.1016/j.comppsy.2009.03.001>.
- Garner, D. M. & Garfinkel, P. E. (1979). The Eating Attitudes Test: An index of the symptoms of anorexia nervosa. *Psychological Medicine*, 9(2), 273-279. <https://doi.org/10.1017/S003329170003076>.
- Hodgson, R. J. & Rachman, S. (1977). Obsessional-compulsive complaints. *Behavioral and Research Therapy*, 15, 389-395. [https://doi.org/10.1016/0005-7967\(77\)90042-0](https://doi.org/10.1016/0005-7967(77)90042-0).
- İnce Palamutoğlu, M. & İnce Yenilmez, M. (2021). Orthorexia Nervosa in university students and its relationship with body image perception. *Ekev Akademi Dergisi*, 87, 399-412. <https://doi.org/10.17753/Ekev2097>.
- Korinth, A., Schiess, S. & Westenhoefer, J. (2010). Eating behaviors and eating disorders in students of nutrition sciences. *Public Health Nutrition*, 13, 32-7. <https://doi.org/10.1017/S1368980009005709>.
- Koven, N. S. & Abry, A.W. (2015). The clinicalbasis of orthorexia nervosa: emerging perspectives. *Neuropsychiatric Disease and Treatment*, 18, 385-394. <https://doi.org/10.2147/NDT.S61665>.
- Lucka, I., Janikowska-Hołoweńko, D., Domarecki, P., Plenikowska-Ślusarz, T. & Domarecka, M. (2019). Orthorexia nervosa – a separate clinical entity, a part of the eating disorder spectrum, or another manifestation of obsessive-compulsive disorder? *Psychiatria Polska*, 53(2), 371-382. <https://doi.org/10.12740/PP/OnlineFirst/85729>.
- Mattson, M. P., Allison, D. B., Fontana, L., Harvie, M., Longo, V. D., Malaisse, W. J., Mosley, M., Notterpek, L., Ravussin, E., Scheer, F. A., Seyfried, T. N., Varady, K. A., & Panda, S. (2014). Meal frequency and timing in health and disease. *Proceedings of the National Academy of Sciences of the United States of America*, 111(47), 16647-16653. <https://doi.org/10.1073/pnas.1413965111>.
- Parra-Fernández, M. L., Rodríguez-Cano, T., Onieva-Zafra, M. D., Pérez-Haró, M. J., Casero-Alonso, V., Fernández-Martínez, E., Notario-Pacheco, B. (2018). Prevalence of orthorexia nervosa in university students and its relationship with psychopathological aspects of eating behaviour disorders. *BMC Psychiatry*, 18(1), 364. <https://doi.org/10.1186/s12888-018-1943-0>.
- Plichta, M. & Jezewska-Zychowicz, M. (2020). Orthorexic tendency and eating disorders symptoms in Polish students: Examining differences in eating behaviors. *Nutrients*, 12(1), 218. <https://doi.org/10.3390/nu12010218>.
- Savaşır, I. & Erol, N. (1989). Yeme tutum testi: Anoreksiya nervosa belirtileri indeksi. *Psikoloji Dergisi*, 7(23), 19-25. <http://www.turkpsikolojiyazilari.com/PDF/TPD/23/02.pdf>
- Segura-Garcia, C., Ramacciotti, C., Rania, M., Aloï, M., Caroleo, M., Bruni, A., Gazzarrini, D., Sinopoli, F., De Fazio, P. (2014). The prevalence of orthorexia nervosa among eating disorder patients after treatment. *Eating and Weight Disorders - Studies on Anorexia, Bulimia and Obesity*, 20(2), 161–166. <https://doi.org/10.1007/s40519-014-0171-y>.
- Şengül, R., & Hocaoğlu, Ç. (2019). What is Orthorexia Nervosa? Diagnostic and Therapeutic Approaches. *KSU Medical Journal*, 14(2), 101-104. <https://doi.org/10.17517/ksutfd.441380>.
- Usta, E., Sağlam, E., Şen, S., Aygün, D. & Sert, H. (2015). Hemşirelik öğrencilerinin yeme tutumları ve obsesif-kompulsif belirtileri. *Sağlık Bilimleri ve Meslekleri Dergisi*, 2, 187-197. <https://doi.org/10.17681/hsp.48687>.
- Varga, M., Dukay-Szabó, S., Túry, F. & van Furth, E.F. (2013). Evidence and gaps in the literature on orthorexia nervosa. *Eat and Weight Disorders*, 18, 103-11. <https://doi.org/10.1007/s40519-013-0026-y>.
- Yazkan, G. & Uğurlu, N. (2022). The relationship between orthorexia nervosa tendencies and OCD symptoms in health care professionals. *Journal of Psychiatric Nursing*, 13(1), 49-56. <https://doi.org/10.14744/phd.2021.87369>.