

Investigation of Orthodontic Nervosa and Hedonic Hunger Status in Football Players of Different Classifications and Sedentary Living Individuals

Farklı Sınıflardaki Futbolcularda ve Hareketsiz Yaşayan Bireylerde Ortodontik Nervosa ve Hedonik Açlık Durumunun İncelenmesi

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ABSTRACT

Aim: This research was carried out to investigate orthodontic nervosa and hedonic hunger status in football players of different classifications and sedentary living individuals.

Material and Methods: This research, which is planned as descriptive-correlational type, was conducted between March and April 2020 among the groups that were interested in football in the past and now live more sedentarily and whose demographic characteristics are similar to football players. The samples were chosen among the football players of Ağrı 1970 Sports Club (Professional footballers), Ağrı Family and Social Policies Youth and Sports Club (Women's football team) and Ağrı amateur football clubs.

Results: According to the findings obtained from the study, it was determined that the total score mean of the individuals' Ortho-15 Scale was 37.25±4.27. The total score mean of the Power of Food Scale-PFS was determined to be 2.85±0.61. A statistically significant negative relationship was found between the Total Score of the Ortho-15 Scale and the Body Mass Index ($p<0.05$). A statistically significant negative relationship was found between the total score of the Power of Food Scale-PFS and Body Mass Index and age ($p<0.05$).

Conclusion: It was found that individuals are prone to orthorexia nervosa and the hedonic hunger level is high. It is recommended that the study be carried out in different and larger groups.

Keywords: Football, hedonism, sedentary lifestyle.

Öz

Amaç: Bu araştırma, farklı sınıflardaki futbolcularda ve hareketsiz yaşayan bireylerde ortodontik nervoza ve hedonik açlık durumunun araştırılması amacıyla yapılmıştır.

Gereç ve Yöntemler: Betimleyici-korelasyon tipi olarak planlanan bu araştırma, geçmişte futbola ilgilenen ve şimdi daha hareketsiz yaşayan ve demografik özellikleri futbolculara benzeyen grup Ağrı'da Mart-Nisan 2020 tarihleri arasında gerçekleştirildi. Örneklem, 1970 Spor Kulübü (Profesyonel futbolcular), Ağrı Aile ve Sosyal Politikalar Gençlik ve Spor Kulübü (Kadın futbol takımı) ve Ağrı Amatör Spor Kulübü futbolcuları arasından seçilmiştir.

Bulgular: Araştırmadan elde edilen bulgulara göre bireylerin Orto-15 Ölçeği toplam puan ortalamasının 37.25±4.27 olduğu belirlenmiştir. Gıda Gücü Ölçeği-PFS toplam puan ortalaması 2,85±0,61 olarak belirlendi. Orto-15 Ölçeği Toplam Puanı ile Vücut Kitle İndeksi arasında istatistiksel olarak anlamlı negatif bir ilişki bulundu ($p<0,05$). Gıdaların Gücü Ölçeği-PFS ve Vücut Kitle İndeksi toplam puanı ile yaş arasında istatistiksel olarak anlamlı negatif bir ilişki bulundu ($p<0,05$).

Sonuç: Bireylerin ortoreksiya nervozaya yatkın olduğu ve hedonik açlık düzeyinin yüksek olduğu bulundu. Çalışmanın farklı ve daha büyük gruplar halinde yapılması önerilmektedir.

Anahtar Kelimeler: Futbol, hedonizm, sedanter yaşam tarzı

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INTRODUCTION

Eating behavior in humans; in addition to being a process regulated by internal homeostatic mechanisms, it is a rather complicated situation that can change with factors such as environmental and social factors (1). Nowadays, with the increase of nutrient availability and easy accessibility, food is eaten not only to provide energy balance when metabolic sensation is felt, but also for pleasure and satisfaction (2-4). Without the metabolic need, as a result of the desire to eat against non-existent foods, the appetite and expectation of enjoying the food are defined as "hedonic hunger-eating" (2,5). Basically, fasting is examined in two processes: homeostatic fasting and hedonic fasting (5). Food intake in the homeostatic hunger, the first factor of the hunger process; in order to eliminate the energy deficit resulting from the negative energy balance, it takes place independently of the flavor of the foods. It is very difficult to measure this metabolic-based form of hunger outside laboratory conditions (4,5). The second factor of the hunger process is hedonic hunger (4,5). Hedonic eating is usually defined by reward-related neuroendocrine systems in fasting satiety metabolism (6,7).

Theoretically, physical activity is known to be of great importance in weight control, as it increases the amount of energy consumed daily and provides a negative energy balance. However, it is reported that this energy deficit may cause an increase in eating impulse and energy intake (8). Exercise and food intake are thought to be related to reward sensitivity. Evidence suggests that intense physical activity stimulates brain substrates associated with reward and addiction. The effect of hedonic hunger among athletes can be affected by sports-specific activities and can vary between branches (9). Orthorexia nervosa was first described by Steven Bratman in 1997 to diversify anorexia nervosa. Since "ortho" means "correct" and "true", Bratman used the term orthorexia nervosa to describe the pathological fixation related to consuming appropriate, healthy food (10). People who regularly exercise are one of the groups at risk of orthorexia nervosa. From this point of view, this study will be carried out in this study in order to determine the difference between football players and individuals who testify to sedentary lifestyle, consisting of people who regularly do sports, which we consider to be a risk group for orthorexia nervosa, in order to contribute to the literature on the prevalence and features of orthorexia nervosa in our country.

MATERIAL AND METHODS

Participants

This research, which is planned as descriptive-correlational

type, was conducted between March and April 2020 among the group that was interested in football in the past and now lives more sedentary and whose demographic characteristics are similar to football players, Ağrı 1970 Sports Club (Professional footballers), Ağrı Family and Social Policies Youth and Sports Club (Women's football team) and Ağrı Amateur Sports Club football players. Consent was obtained from Agri Ibrahim Cecen University Scientific Research Ethics Committee (Date:25.06.2020, Decision number:106) and adhered to the Human Rights Declaration of Helsinki throughout the study.

The target population of the study consisted of Ağrı 1970 Sports Club (Professional footballers, Ağrı Family and Social Policies Youth and Sports Club (Women's football team) and Ağrı Amateur Sports Club football players and employees of institutions who are prone to sedentary life in Ağrı. The sample of the study consisted of employees of institutions who are prone to sedentary life in Ağrı, Ağrı 1970 Sports Club (Professional footballers, Ağrı Family and Social Policies Youth and Sports Club (Women's football team) and Ağrı Amateur Sports Club formed football players who voluntarily agreed to participate in the study.

Procedures

In the collection of research data, Introductory Information Form, Power of Food Scale-PFS (PFS) and Orto-15 Scale were used. After explaining the purpose of the research, after obtaining verbal consent from those who voluntarily agreed to participate in the research, the data were collected online from the groups where collective announcements were made with the Google form prepared by the researchers.

Measures

1. Introductory Information Form: It consists of questions that are created by researchers and contain introductory features.

2. Power of Food Scale-PFS

"Power of Food Scale-PFS": was first developed by Cappelleri et al. (1) in 2009. In this study, PFS, which was adapted to Turkish and validity-reliability was made by Melisa Hayzaran (11) in 2018, was used. The PFS was developed to evaluate the effects of living in environments where delicious foods (especially high sugar and fat content) are high and common, on individuals' psychological states and hedonic hunger. PFS is a scale that is answered with a five-item Likert scale ranging from 1 (never agree) to 5 (strongly agree). PFS has 3 sub-factors that measure the responses

to nutritional status (11). During the evaluation phase, all items are scored and the total score is divided by the number of items between 1-5 and comments are made. Increasing the scale score of the individual means that the effect power of the foods on the individual (hedonic hunger) increases. The Evaluation of the PFS is based on 5 points, and the mean score above 2.5 indicates that the hedonic hunger exists and is affected by the food (11). The reliability coefficient of the scale (Cronbach's Alpha) is 0.76. In our study, Cronbach Alpha value was found as 0.83.

3. ORTO-15 Test:

ORTO-15 was created by the development and modification of the expressions, which included in the 10-question orthorexia short questionnaire prepared by Bratman (2000), by Donini et al. (2005) (12).

In 2006, Turkish adaptation, validity and reliability study was performed by Arusoğlu. In order to make measurements both emotionally and rationally in applied individuals: 3 sections are examined as "cognitive-rational," clinical area "and" emotional area ". The answers of the questions in the scale are given '1' to '4' points, while '1' points represent orthorexic behavior, '4' indicates normal behavior, total score is minimum 15 points and maximum 60 points. As it is understood from the scoring system, while high score acquisition is an indicator of normal behaviors, individuals with orthorectic behaviors receive lower scores. The cut-off point of the scale, which is calculated below, is specified as 40, and those who score "40 and below" indicate the tendency to orthorexia neurosis. Arusoğlu determined that the factor loads of the items ranged from 0.44 to 0.69 (13). In our study, Cronbach Alpha value was found as 0.72.

Statistical analysis

The analysis of the data was done on the computer using the SPSS 22.0 (IBM Corp., Armonk, NY, USA) statistical software. Frequency, descriptives, percentage, mean, standard deviation, median, explore and normality plots with tests were used as descriptive statistical methods. Kolmogorov-Smirnov test was used to test normality distribution with analytical tests. Independent samples t test was used for normally distributed and for data that is not normally distributed Mann-Whitney U test was used for binary groups. One Way ANOVA test was used for normally distributed and for data that is not normally distributed Kruskal-Wallis test was used for groups more than two. Spearman correlation test was used to determine whether there is a linear relationship between the two numerical measurements, the direction and severity of this relationship, if any. In our study, $p < 0.05$ was accepted as statistically significant difference.

RESULTS

It was determined that 81.2% of the individuals participating in the study were male, 49.5% were sedentary individuals, 71.3% were single, 63.4% were university graduates, 90.1% were not obese in their family, 60.4% were looking at the nutritional value of the product they ate, %45.5 of them consumed little and moderate fast food, 58.4% gave importance to taste in food selection, 72.3% did not use energy drinks and the average age of the group was 24.75 ± 6.032 , and the mean Body Mass Index was 23.31 ± 3.692 (Table 1).

Individuals ORTO-15 scale total score mean is 37.25 ± 4.27 and it was determined that individuals were orthorectic because it is ≤ 40 . ORTO-15 scale subscale mean scores of individuals; concern about Healthy Nutrition Sub-Dimension total score mean was 17.62 ± 3.27 , Food Choice, Eating Attitudes and Behaviors Sub-Dimension total score mean was 9.37 ± 2.01 , Food Choice and Value Sub-Dimension total score mean was 7.95 ± 1.81 .

Individuals PFS total score mean is 2.85 ± 0.61 and it was found that hedonic hunger exists because it is over 2.5. Considering the mean scores of the Individuals PFS sub-dimension; Food Availability Sub-Dimension total score mean was 2.77 ± 0.78 , Food Present Sub-Dimension total score mean was 2.67 ± 0.83 , Taste of Food Sub-Dimension total score mean was found 2.96 ± 0.72 (Table 2).

The ORTO 15 scale total score mean of the individuals was found to be significantly higher in women, Ağrı 1970 Sports Club players, and those who did not have an obese individual in their family ($p < 0.05$). The total score mean of the individuals PFS was found to be significantly higher in Ağrı Amateur Sports Club football players, those who looked at the nutritional value of the product they ate, and those who consumed energy drinks ($p < 0.05$) (Table 3).

It was found that there was a statistically significant positive correlation between the total score of the ORTO-15 Scale and the Concern about Healthy Nutrition, Food Choice and Value sub-dimensions of the ORTO-15 Scale ($p < 0.05$). It was found that there was a statistically significant negative correlation between the total score of the ORTO-15 Scale and the mean Body Mass Index (BMI) ($p < 0.05$).

A positive statistically significant relationship was found between the Concern about Healthy Nutrition sub-dimension and the total score of the ORTO-15 Scale, and the Food Selection and Value from the ORTO-15 Scale sub-dimensions ($p < 0.05$).

Table 1. Descriptive characteristics of individuals (n=101)

Variables		n	%
Gender	Male	82	81.2
	Female	19	18.8
Groups	Ağrı 1970 Sports Club	17	16.8
	Ağrı Family and Social Policies Youth and Sports Club	19	18.8
	Ağrı Amateur Sports Club	15	14.9
	Sedentary Individuals	50	49.5
Marital status	Married	29	28.7
	Single	72	71.3
Education level	High school graduate	37	36.6
	Graduated from a university	64	63.4
Obese Individuals in the Family	Yes	10	9.9
	No	91	90.1
Looking at the Nutritional Value of the Product He Eats	Yes	61	60.4
	No	40	39.6
Fast Food Frequency	Never	6	5.9
	Little	46	45.5
	Medium Level	46	45.5
	Very Often	3	3.1
Food Selection	Be delicious	59	58.4
	Be healthy	34	33.7
	Being easily accessible	8	7.9
Energy Drink Consumption	Yes	28	27.7
	No	73	72.3
		$\bar{X} \pm SD$	
Age		24.75±6.032 (min. 16, max. 36)	
Body Mass Index		23.31±3.692 (min. 16.38, max. 32.53)	

Table 2. Individuals' Total and Sub-Dimension Mean Scores of ORTO-15 Scale and Power of Food Scale-PFS

Scales	$\bar{X} \pm SD$	Min.	Max.
ORTO-15 Scale Total Score Mean	37.25±4.27	28	51
Concerns about Healthy Eating Sub-Dimension Total Score Mean	17.62±3.27	10	24
Food Choice, Eating Attitudes and Behaviors Sub-Dimension Total Score Mean	9.37±2.01	5	15
Food Selection and Value Sub-Dimension Total Score Mean	7.95±1.81	3	12
Power of Food Scale-PFS Total Score Mean	2.85±0.61	1.05	4.10
Food Availability Sub-Dimension Total Score Mean	2.77±0.78	1.00	4.67
Food Presence Sub-Dimension Total Score Mean	2.67±0.83	1.00	4.50
Tasting the Food Sub-Dimension Total Score Mean	2.96±0.72	1.20	4.60

A statistically significant negative correlation was found between Concerns about Healthy Eating and the Sub-dimensions of the ORTO-15 Scale, Food Selection, Eating Attitudes and Behaviors, and the Tasting of Food sub-dimensions of the PFS ($p < 0.05$).

A statistically significant negative correlation was found between Food Selection, Eating Attitudes and Behaviors, and from the ORTO-15 Scale sub-dimensions Concerns about Healthy Nutrition, Food Selection and Value, and age ($p < 0.05$). A statistically significant positive correlation was found between Food Selection, Eating Attitudes and Behav-

iors, and PFS total score and all sub-dimensions ($p < 0.05$).

A positive statistically significant correlation was found between Food Selection and Value and the total score of ORTO-15 Scale and its sub-dimensions, Concerns about Healthy Nutrition sub-dimension ($p < 0.05$). A statistically significant negative correlation was found between Food Selection and Value and Food Selection, Eating Attitude and Behaviors sub-dimensions of ORTO-15 Scale ($p < 0.05$).

A statistically significant positive correlation was found between the total score of the PFS and all sub-dimensions and the Food Selection, Eating Attitudes and Behaviors Sub-di-

mensions of the ORTO-15 Scale ($p<0.05$). A statistically significant negative correlation was found between the total score of the PFS, BMI and age ($p<0.05$).

A statistically significant positive correlation was found between Food Availability and PFS total score and all sub-dimensions, and Food Selection, Eating Attitudes and Behaviors from the ORTO-15 Scale sub-dimensions ($p<0.05$).

A statistically significant positive correlation was found between Food Presence and PFS total score and all sub-dimensions, and Food Selection, Eating Attitudes and Behaviors from the ORTO-15 Scale sub-dimensions ($p<0.05$). A statistically significant negative correlation was found between the Food Presence and age ($p<0.05$).

A positive statistically significant correlation was found between Taste of Food and PFS total score and all sub-dimensions and Food Selection, Eating Attitudes and Behaviors

from the ORTO-15 Scale sub-dimensions ($p<0.05$). A statistically significant negative correlation was found between the Taste of Food and the Concern about Healthy Nutrition and BMI, which are sub-dimensions of the ORTO-15 Scale, and age ($p<0.05$).

A statistically significant negative correlation was found between BMI and ORTO-15 scale total score, PFS total score, and Taste of Food in the PFS sub-dimensions ($p<0.05$). A statistically significant positive correlation was found between BMI and age ($p<0.05$).

A statistically significant negative correlation was found between age and Food Selection, Eating Attitudes and Behaviors sub-dimensions of the ORTO-15 scale, PFS total score, Nutrient Presence and Taste of Food which are sub-dimensions of the PFS ($p<0.05$). A statistically significant positive correlation was found between age and BMI ($p<0.05$) (Table 4).

Table 3. Comparison of Demographic Characteristics of Individuals with ORTO-15 Scale and Power of Food Scale-PFS Mean Scores

Variables	ORTO-15 Scale			Power of Food Scale-PFS		
	n	$\bar{X}\pm SD$	Test and Significance	$\bar{X}\pm SD$	Test and Significance	
Gender	Male	82	36.78±3.83	t: -2.385	2.82±0.64	U=659.00
	Female	19	39.31±5.44	p=0.019	2.97±0.46	p=0.297
Groups	Ağrı 1970 Sports Club	17	39.47±3.77		2.91±0.28	x2KW=9.888 p= 0.020
	Ağrı Family and Social Policies Youth and Sports Club	19	39.31±5.44	F: 5.697	2.97±0.46	
	Ağrı Amateur Sports Club	15	37.06±3.28	p=0.001	3.25±0.59	
	Sedentary Individuals	50	35.78±3.61		2.67±0.68	
Marital Status	Married	29	37.00±3.47	t: -0.383	2.79±0.48	U=960.00
	Single	72	37.36±4.57	p=0.703	2.88±0.66	p=0.528
Education level	High school graduate	37	38.05±4.66	t: 1.432	2.87±0.49	U=1166.50
	Graduated from a universty	64	36.79±3.99	p=0.155	2.84±0.68	p=0.902
Obese Individuals in the Family	Yes	10	34.60±3.68	t: -2.108	2.77±0.81	U=426.00
	No	91	37.54±4.24	p=0.038	2.86±0.59	p=0.741
Looking at the Nutritional Value of the Product He Eats	Yes	61	37.52±4.32	t: 0.775	2.97±0.55	U=868.50
	No	40	36.85±4.20	p=0.440	2.67±0.65	p=0.015
Fast Food Frequency	Never	6	35.50±5.00		2.67±0.41	x2KW=1.176 p= 0.759
	Little	46	36.58±4.48	F:2.266	2.85±0.55	
	Medium Level	46	38.34±3.77	p=0.086	2.88±0.71	
	Very Often	3	34.33±4.04		2.85±0.31	
Food Selection	Be delicious	59	37.96±4.42		2.89±0.57	x2 KW=0.803 p= 0.669
	Be healthy	34	36.47±3.87	F:2.218	2.83±0.60	
	Being easily accessible	8	35.37±4.10	p=0.114	2.66±0.92	
Energy Drink Consumption	Yes	28	38.25±5.15	t: 1.992	3.04±0.36	U=759.50
	No	73	36.87±3.85	p=0.058	2.78±0.67	p=0.046

Table 4. Comparison of Individuals' Age, Body Mass Index, ORTO-15 Scale and Power of Food Scale-PFS Total Score Means and Sub-Dimensions Score Means

		1	2	3	4	5	6	7	8	9
(1) ORTO-15	r									
	p									
(2) Concerns About Healthy Eating	r	0.849								
	p	0.000								
(3) Food Selection, Eating Attitudes and Behaviors	r	-0.035	-0.319							
	p	0.729	0.001							
(4) Food Selection and Value	r	0.671	0.498	-0.328						
	p	0.000	0.000	0.000						
(5) Power of Food Scale-PFS	r	-0.088	-0.193	0.329	-0.140					
	p	0.380	0.053	0.001	0.162					
(6) Food Availability	r	0.006	-0.067	0.256	-0.067	0.819				
	p	0.954	0.505	0.010	0.506	0.000				
(7) Food Presence	r	-0.079	-0.142	0.289	-0.126	0.719	0.543			
	p	0.432	0.157	0.003	0.209	0.000	0.000			
(8) Tasting of the Food	r	-0.092	-0.213	0.294	-0.145	0.760	0.529	0.475		
	p	0.362	0.032	0.003	0.147	0.000	0.000	0.000		
(9) Body Mass Index	r	-0.200	-0.136	-0.075	-0.160	-0.204	-0.157	-0.163	-0.219	
	p	0.045	0.175	0.453	0.111	0.040	0.118	0.104	0.028	
(10) Age	r	-0.144	-0.051	-0.258	-0.019	-0.263	-0.184	-0.303	-0.224	0.734
	p	0.150	0.615	0.009	0.851	0.008	0.066	0.002	0.024	0.000

DISCUSSION

Nutrition is a need that takes place in every process, from the mother's womb to the end of life, as an indispensable part of our life. Adequate, balanced and healthy nutrition of individuals, gaining correct eating habits; reducing the risk of obesity, cardiovascular diseases, diabetes, cancer, etc. in the society, preventing protein energy malnutrition, vitamin-mineral deficiencies, etc. is one of the protective factors that play a role in minimizing nutritional health problems (14). This study was carried out in order to determine the difference with the football players consisting of people who regularly do sports, and individuals who testify their sedentary lifestyle.

The total score mean of the ORTO-15 scale was 37.25 ± 4.27 and it was found to be orthorectic since it was ≤ 40 . The ORTO-15 scale sub-dimension score means of the individuals; concerns about Healthy Nutrition Sub-Dimension total score mean 17.62 ± 3.27 , Food Selection, Eating Attitude and Behaviors Sub-Dimension total score mean 9.37 ± 2.01 , Food Selection and Value Sub-Dimension total score mean 7.95 ± 1.81 . Similar results have been found in many studies in the literature (15-18).

In our study, the total score mean of ORTO-15 scale was found to be statistically significantly higher in women ($p < 0.05$). This shows that men are more orthorectic.

In parallel with our study in the study of Fidan et al., on tendency in male students is statistically significantly higher (15).

The total score mean of ORTO-15 scale of the individuals was statistically significantly higher in those with Ağrı 1970 Sports Club (Professional footballers) ($p < 0.05$). In post hoc analysis, it was found that Ağrı 1970 Sports Club (Professional footballers) and Ağrı Family and Social Policies Youth and Sports Club (Women FC) mean score was higher than the sedentary group. Sedentary individuals have been found to be more orthorectic. In Ergin's study, no significant difference was found (19). In the study of Segura-Garcia, it was found that those who do sports are more orthorectic. This situation suggests that our study group has similar demographic features and it has a more focus on nutrition since it decreases the sedentary group's interest in sports (20).

In our study, the mean total score of the individuals for the ORTO-15 scale was found to be statistically significantly higher in those who did not have an obese individual in their family ($p < 0.05$). It was determined that those with obese individuals in their family were more orthorectic. Larsen observed an increase in orthorexia symptoms in obese individuals (21). Experts stated that one of the reasons that caused this obsession with healthy foods was family-acquired habits (22). This situation suggests that

family members are more focused on healthy nutrition by being affected by obese individuals.

The total score mean of the individuals' PFS was 2.85 ± 0.61 and it was found to be hedonic hunger because it was over 2.5. Individuals' PFS subscale score means; Food Available Sub-Dimension Total Score Mean 2.77 ± 0.78 , Food Presence Sub-Dimension Total Score Mean 2.67 ± 0.83 , Taste of Food Sub-Dimension Total Score Mean 2.96 ± 0.72 . Similar results have been found in the literature (13,23,24).

In our study, the total score mean of the individuals' PFS was found to be statistically significantly higher in Ağrı Amateur Sports Club players ($p < 0.05$). This indicates that individuals who do sports have higher hedonic hunger than sedentary individuals. Similar results were found in the literature (11,23,25). Considering that football players usually perform moderate and high intensity repetitive exercise and training for about 90 minutes 6 days a week, 1-2 times a week, they can show that long-term and intense chronic exercise can be effective on hedonic processes.

In our study, the total score mean of the individuals' PFS was found to be statistically significantly higher among those who looked at the nutritional value of the product ($p < 0.05$). There is no similar study in the literature and this suggests that they prefer to eliminate hedonic hunger according to the nutritional value of activity.

In our study, the total score of the individuals' PFS was found to be statistically significantly higher in those who consumed energy drinks ($p < 0.05$). There is no similar study in the literature, and this suggests that this is due to the athletes who demand an energy drink based on the activity. It was found that there was a statistically significant relationship between the total score of the ORTO-15 Scale and the BMI ($p < 0.05$). As BMI increased, orthorexia score means decreased (indicating the increase in orthorectic tendency). There are similar studies in the literature (15,26).

A statistically significant relationship was found between the total score of the PFS and the BMI ($p < 0.05$). In the study by Şarahman, no relation was found (27). In another study, it is stated that adults who are obese compared to BMI have higher PFS score, that is, higher hedonic hunger than adults with normal BMI (28). In our study, it is thought that the group is predisposed to more hedonic hunger due to the frequency of daily activity, since the group consists of individuals who are mainly sports and have left sports.

A statistically significant relationship was found between the total score of the PFS and age ($p < 0.05$). Similar results

were found in the literature (27,28). It is found that there is a decrease in the sense of taste with aging, and when the taste perception of individuals is evaluated, women and men in the 20-30 age group are more sensitive than men and women in the 30-40 age group (7). In the light of this information, it can be thought that hedonic hunger will decrease with the advancement of age and decrease in the sense of taste.

CONCLUSION

It has been found that individuals are prone to orthorexia nervosa and hedonic hunger level is high. It is recommended that the study be carried out in different and larger groups.

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