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EVALUATING ORTHOREXIA TENDENCY AMONG TRAKYA UNIVERSITY MEDICAL SCHOOL STUDENTS

Aslı Nur Özkan[1], Atilla Ülkücü[1], Tuğba Kanter[1], Mehmet Emin Tapan[1], Begüm Turgutlugil[1], Ayşe Çaylan[2]

[1] Trakya University School of Medicine, Edirne, TURKEY
[2] Department of Family Medicine, Trakya University School of Medicine, Edirne, TURKEY

ABSTRACT

Aims: In this study, it is aimed to bring up Orthorexia nervosa tendency among Trakya University Medical School students and determine the effect of smoking, alcohol use, drug use, chronic diseases, previous regimes, doing sports, possibility of individuals of cooking for themselves in their daily life and socio-demographic variables.

Methods: This is a cross-sectional survey study that was applied to the 1278 students who are enrolled in Trakya University Medical School in 2014-2015 academic year. A questionnaire is prepared by the researcher including questions to determine orthorexia nervosa tendency, socio-demographic factors and Orto-11 scale. 705 students filled the questionnaire and only 676 could be used in the study. The mean age of the students was 20.92 years (min. 17 years max. 40 years). 62.1 % was female (420) and 37.9% was male (256). Results have been evaluated by using SPSS programme. In this evaluation, Kruskal Wallis and chi-square test were used.

Results: Among the factors which were searched, it is seen that smoking, alcohol use and drug use decreased Orthorexia nervosa tendency while it is increased with possibility of cooking, male sex and doing sports. No significant difference were observed between other factors and Orthorexia nervosa.

Conclusion: Even though there are not adequate studies in literature and it is not described in DSM-V, Orthorexia nervosa might affect individual's quality of life later in their lifetime. It is important to carry on more comprehensive studies on this topic.

Key Words: Eating disorders, medical students, feeding behavior, food habits, diet therapy

INTRODUCTION

Eating habits are directly related to one's lifestyle. Pathological changes in eating habits are defined as eating disorders. Orthorexia nervosa is a term describing the condition in which eating health becomes a pathological obsession. Orthorexia nervosa was first described by Dr. Steven Bratman and was derived from "ortho" which mean correct and right (1, 2). It starts when one starts to fixate on eating only healthy and "pure" food. Different from other eating disorders,in that the main aim of the person is not to lose weight in orthorexia nervosa. But it has some common features with anorexia nervosa and also used to be considered as a subgroup of it. Fixating their life on food and obsessive personality traits are common (2). In the study they carried on in 2010 Fidan et al. (3) detected that the prevalence of orthorexia nervosa in medical school was higher in male students than female students. The study also showed personality traits such as perfectionism and addiction along with family attitude have an impact (3).

Studies on orthorexia nervosa which is not classified as an eating disorder in Diagnostic and Statistical-Manual of Mental Disorders (DSM) -5 are still carried out.

In this study, it is aimed to determine orthorexia nervosa tendency and its periodical connection among Trakya University Medical School students; to determine the effect of smoking, alcohol use, drug use, chronic diseases, previous regimes, exercise habits, individuals' opportunity to cook for themselves and socio-demographic variables.

Adress for Correspondence: Aslı Nur Özkan, Trakya University School of Medicine, Edirne, TURKEY - e-mail: nurozkan93@gmail.com

MATERIAL AND METHODS

This research was designed as cross-sectional. It is a survey study that was carried out with Trakya University Medical School undergraduate students in 2014-2015 academic year. Sample of the study was all of 1278 students who were enrolled in 2014-2015. Survey was applied in Trakya University Medical School lecture hall, practice rooms, inpatient services and classes in the hospital. Out of 705 students who agreed to participate in the study, 676 forms were valid.

In the survey prepared by the researcher; questions on class of student, smoking, use of alcohol and other psychoactive drugs, chronic diseases, if they had ever dieted, their opportunity to cook for their own in daily life, if they exercise on regular basis and their sociodemographical features were questioned. In the study, Orto-11 survey which was translated to Turkish by Arusoğlu et al. (2) in 2008 was used to detect Orthorexia Nervosa tendency. In the survey thet every statement was evaluated with four-lever likert type scale, significant answers for Orthorexia Nervosa was scored as "1" when significant answers for regular eating habits were scored "4".

Data was analyzed by using SPSS 19.0 pocket programme and basic descriptive analysis were applied for me whole study group. The relation between smoking, alcohol use, drug use, regular exercise habits, any diets that was followed in the past, opportunity to cook their own food and ortherectic tendency was evaluated by using Kruskal-Wallis test. The relation between the features of the participants such as gender, grade, body mass index (BMI), chronic diseases and orthorectic tendency was evaluated by using Chi-Square test.

BMI grouping was based on the classification that was decided for adults and accepted by World Health Organization (4). Grouping to detect Orthorexia nervosa tendency was determined by splitting the participant in 3 groups based on standard deviation after calculating means of Orto-11 scores they received. The group that got the lowest score was considered to have the strongest tendency for Orthorexia nervosa. When analyzing, $p<0.05$ was considered to be significant.

RESULTS

Out of the 676 people who participated in the study, 62.1% (420) were female and 37.9% (256) were male. Among the participating students, 21.4% (145) were 1st grade, 24.1% (163) 2nd grade, 13% (88) 3rd grade, 14.9% (101) 4th grade, 18.2% 5th grade and 8.3% sixth grade students. Youngest of the participants was 17 and the oldest 40 of age, the mean age being 20,92.

Table 1 shows the percentages of smokers, alcohol and drug use, regular exercise habits, opportunity to prepare their own meals and history of dieting.

Table 1: Percentages of smokers, alcohol and drug users, participants with regular exercise habits, opportunity to prepare their own meals and history of dieting

	Percentage of presence (n=number of people)	Percentage of absence (n=number of people)
Smoking	12.3%(83)	87.7% (593)
Use of alcohol	33.3% (225)	66.7% (451)
Drug use	1.9%(13)	98.1% (663)
Regular exercise habits	27.5%(186)	72.4% (490)
Opportunity to prepare their own meals	55.6% (376)	44.4% (300)
History of dieting	7.2% (49)	92.8%(627)

In questioning chronic diseases among the participants, the diseases were categorized as diabetes, hypertension, cardiovascular diseases, respiratory system diseases, thyroid and other diseases (Table 2).

Table 2: Percentages of chronic diseases

		Presence of chronic disease Percentage (number of people)
Diseases	None	90,7% (614)
	Diabetes	1,5% (10)
	Hypertension	0,3% (2)
	Cardiovascular	0,6% (4)
	Respiratory	2,4% (16)
	Thyroid	1,3% (9)
	Other	3,1% (21)
	Total	100% (676)

Mean Orto-11 scores of subjects were 28.04 ± 4.64. According to the standard deviation, subjects were divided in 3 groups according to their tendency for orthorexia nervosa. The group with lower scores was classified as Group 1, the group with medium scores as Group 2 and the group with higher scores as Group 3 (Table 3).

Table 3 shows the association of gender, smoking, use of alcohol and drugs, regular exercising habits, opportunity to prepare one's own meal with subjects

classified categorized to standard deviation.The results were obtained by Chi-Square analysis.

The analysis indicated that male participants have a higher orthorexic tendency than female participants (p=0.004). A significant difference was identified between tendency for orthorexia and smoking (p <0.001), alcohol use (p=0.005), drug use (p <0.001). A significant difference was found between the tendency for orthorexia and participants, who have the opportunity to prepare their own food (p=0.018). It was found that people who regularly exercise have a medium tendency to Orthorexia nervosa (p=0.033).

Table 3. The association of gender, smoking, alcohol and drug use, regular exercise habits, opportunity to prepare own food with subjects categorized according to standard deviation

	Orto Groups			P
	1	2	3	
Gender				
Female	54 (48.2)	291 (64.4)	75 (67.0)	0.004
Male	58 (51.8)	161 (35.6)	37 (33.0)	
Smoking				
Yes	27 (24.1)	52 (11.5)	4 (3.6)	<0.001
No	85 (75.9)	400 (88.5)	108 (96.4)	
Alcohol				
Yes	51 (45.5)	145 (32.1)	29 (25.9)	0.005
No	61 (54.5)	307 (67.9)	83 (74.1)	
Drug use				
Yes	8 (7.1)	5 (1.1)	0 (0.0)	<0.001
No	104 (92.9)	447 (98.9)	112 (100.0)	
Preparing own meals				
Yes	51 (45.5)	253 (56.2)	72 (64.3)	0.018
No	61 (54.5)	197 (43.8)	40 (35.7)	
Exercise				
Yes	30 (26.8)	114 (25.2)	42 (37.5)	0.033
No	82 (73.2)	338 (74.8)	70 (62.5)	

Description: 1-high orthorexic tendency; 2-medium orthorexic tendency; 3-low orthorexic tendency

Spearman correlation analysis showed no significant relationship between the groups and the tendency for Orthorexia nervosa (p>0.05).

The one-way ANOVA analysis showed no statistically significant difference between BMI and age compared to the groups categorized according to the standard deviation (p>0.05).

DISCUSSION

In this research, the tendency for Orthorexia nervosa of Trakya University Faculty of Medicine students and its relationship with students' years of study, their use of cigarette, alcohol, drugs, their chronic diseases, history of regimes, opportunity to prepare their own food, physical exercise habit and the effect of sociodemographic variables on this subject have been studied. According to the acquired data, a negative correlation between the use of alcohol and drugs have been confirmed. As expected, the data suggests that people with harmful habits have no tendency to obsessive worry for healty food consumption.

Studies show that being a medical student and having physical exercise habits are strong risk factors for tendency for Orthorexia nervosa (5). Since the medical students are in the population of high tendency for Orthorexia nervosa, students who do physical exercises on a regular basis were expected to have a high tendency for Orthorexia nervosa, but they had relatively medium tendency. This corraborates to our results.

In our research, we confirmed a positive correlation between students who have opportunities to prepare their own food and tendency to orthorexia nervosa. It was thought that since the person is in touch with food while preparing, their desire towards healty food might increase.

Orthorexic tendency among people with a history of diets was confirmed, although statistically non-significant. According to the research of Arusoğlu et al. (2), people with medical diet history have a higher tendency to orthorexia and this was confirmed as statistically significant. The disparity of our research might be a reason of the fact that the sample sizes were non-proportional.

According to the results of our analyzes, men have a higher tendency to orthorexia nervosa than women. The results of Fidan et al.'s (3) research in 2010 also corraborate our findings.

Between the years of study, it was thought that there might be a positive correlation by the increase of medical education level, but no direct connection was confirmed. The reason for this is thought to be that the sample sizes were non-proportional between different years and therefore researches with random distribution are suggested.

In our research, no significant connection between BMI and orthorexia nervosa was found. The fact that Arusoğlu et al.'s (2) research also did not confirm any significant connection between BMI and orthorexia nervosa corraborates our results.

No statistically significant connection between chronic diseases and orthorexia nervosa was found in our research. However, there are studies indicating a higher orthorexic tendency for people with chronic diseases (5). Non-proportional distribution of sample sizes with and without a history of chronic diseases might be a reason why this research couldn't confirm a significant connection. Therefore, more comprehensive further studies are required.

In conclusion, even though there are not enough studies in the literature and the condition is not included in DSM-V, Orthorexia nervosa may turn out to be a negative factor for the living standards in the long term. Therefore, it is a matter of importance for further studies to be carried out in this subject.

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