

Food Neophobia Among Tourism Students

Turizm Öğrencileri Arasında Yeni Yiyecek Deneme Korkusu

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ABSTRACT

Rejection of novelty in neo-psychology is called neophobia which is mean fear of innovation. Food neophobia expresses reluctance of people to consume new or unusual foods based on their culture and current diet. The present study aimed to evaluate the extent to which undergraduate students (at Mersin University's Faculty of Tourism) experience food neophobia. The Food Neophobia Scale is used to measure the fear of new foods. A face-to-face Turkish questionnaire was applied to 370 undergraduate students consisting of three departments (Department of Gastronomy and Culinary Arts, Department of Tourism Management, and Department of Tourism Guidance) with method of convenience sampling. The data were analyzed through t-test, Anova and factor analysis. It was determined that in general students' food neophobia level was neutral. On the basis of department, it was found that Gastronomy and Culinary Arts' students were the most open in trying new food, whereas students of the Tourism Guidance department were found to be the most food neophobic. On the other hand, no significant difference was found between the "food neophobia" and "gender" and "marital status". According to the analysis of students' attitudes towards new foods, it was determined that students were not open to trying ethnic foods

Keywords: Faculty of Tourism, Food Neophobia, Attitude, Student.

Öz

Neo-psikolojide yeniliğin reddedilmesi, yenilik korkusu olan neofobi olarak adlandırılır. Gıda neofobisi, insanların kültürlerine ve mevcut diyetlerine dayanarak yeni veya sıra dışı yiyecekleri tüketme isteksizliğini ifade eder. Bu çalışma, lisans öğrencilerinin (Mersin Üniversitesi Turizm Fakültesi'nde) gıda neofobisini ne ölçüde deneyimlediklerini değerlendirmeyi amaçlamıştır. Gıda Neofobi Ölçeği, yeni gıdaların korkusunu ölçmek için kullanılır. Kolayda örnekleme yöntemi ile üç bölümden (Gastronomi ve Mutfak Sanatları Bölümü, Turizm Yönetimi Bölümü ve Turizm Rehberliği Bölümü) oluşan 370 lisans öğrencisine yüz yüze Türkçe anket uygulanmıştır. Veriler t-testi, Anova ve faktör analizi ile analiz edilmiştir. Genel olarak öğrencilerin gıda neofobi düzeyinin nötr olduğu belirlenmiştir. Bölüm temelinde, Gastronomi ve Mutfak Sanatları öğrencilerinin yeni yiyecek denemede en açık oldukları, Turizm Rehberliği bölümü öğrencilerinin ise en fazla gıda neofobisi olduğu tespit edilmiştir. Öte yandan, "gıda neofobisi" ile "cinsiyet" ve "medeni durum" arasında anlamlı bir fark bulunmamıştır. Öğrencilerin yeni gıdalara karşı tutumlarının analizine göre, öğrencilerin etnik gıdaları denemeye açık olmadığı belirlenmiştir.

Anahtar Kelimeler: Turizm Fakültesi, Gıda Neofobisi, Tutum, Öğrenci.

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Introduction

Food neophobia is a term used to understand food and nutritional difficulties, but also it refers to the fear of experimenting with new and unusual food and beverages. It is defined as avoidance or unwillingness to consume new or unusual foods according to the current diet (Pliner & Hobden, 1992, s.105; Schulze & Watson, 1995, s.230; Pliner & Salvy, 2006, s.76). Food neophobia is seen not only as a behavior involving the rejection of new foods but also as a personality trait (Pliner & Salvy, 2006, s.76). There are many differences among people in reluctance of trying new foods. These differences, behavioral and psychological problems such as anxiety, anger, sensuality, economic, cultural, regional factors, demographic factors such as age, gender, education, smell, taste, appearance of foods, are considered as situational differences affecting food choice (Rigal et al., 2006, s. 209; Wadolowska et al., 2008, s. 127). Literature suggests that there are three reasons why people with food neophobia refuse to try new food; dissatisfaction with the sensory properties of food, fear of negative consequences of food, and disgust with the idea of the origin of food (Fallon & Rozin, 1983: 15; Vidigal et al., 2015, s. 834). To evaluate such neophobic behaviors, Pliner, Eng & Krishnan, (1995, s. 77) examined individuals' behavior towards familiar and unfamiliar foods. In the study, which evaluated only images of new foods, it was found that the participants were quite reluctant towards foods that they were not familiar with. At the present study, first, the literature was discussed, and the purpose and method of the research were explained. Later, findings related to students' fears of experimenting with new food, and the discussion of research questions were presented. The paper is finalized with presentation of discussions, evaluations and recommendations.

Literature Review

Food neophobia, which has long been a subject of study in the literature, is often defined as the rejection of new or unknown foods (Dovey et al., 2008, s. 185). Neophilia, which is the opposite of the food neophobia, expresses the desire of people to try new foods that they do not know, recognize, and do not think will harm their health. Unlike neophobia, people with neophilia want to try new and different foods more and are more willing to try again (Raudenbush & Frank, 1999, s. 269). The existence of an extremely strong link between food neophobia and exposure to food has been repeatedly demonstrated (Pliner et al., 1993, s. 114; Frank & Raudenbush, 1998, s. 237; Birch & Fischer, 1998, s. 541). This connection seems to be directly related to the frequency with which a person lives with different types of food in daily life (Knaapila et al., 2011, s. 514). In particular, according to Pliner, Pelchat and Grabski (1993, s. 116), frequent exposure to new foods reduces the food neophobia. Some studies based on university students' food neophobia are discussed below.

Pliner and Hobden (1992, s. 108) invited student volunteers to try new foods and found that the participants were not willing to try new foods and tried almost no new foods. Olabi et al., (2009, s. 358), wanted to determine food neophobia levels of different cultures in a study conducted between American and Lebanese university students.

They found that Lebanese students had a higher food neophobia level than American students. In the study conducted by Edwards, Hartwell and Brown (2010, s. 303), the researchers wanted to determine whether international graduate students have food neophobia and whether this situation differs according to demographic characteristics. As a result of the analyzes, it was found that Asian students had a higher level of food neophobia than European students. Asperin, Phillips and Wolfe (2011, s. 5) questioned the levels of food neophobia among university students, and how they perceive ethnic foods. They found that the participants with high levels of neophobia have negative attitudes towards Chinese and Thai cuisines. It was found that the participants with low neophobia had a positive attitude towards Chinese and Thai foods and volunteered to try the foods of these cuisines. Schnettler et al., (2017, s. 201) conducted a study to determine the relationship between university students food neophia and their general and food well-being levels and their families' eating habits. As a result, it was determined that there was a statistically significant difference between students' fear of experimenting with new foods and subjective and well-being levels in general and food field. Additionnaly, a significant relationship was determined between the levels of food neophobia and the pressure dimension which is the sub-dimension of the feeding habits of their families. Yigit & Dogdubay (2017, s. 163) revealed that gastronomy students were reluctant to try new and different foods. In addition, it was found that food neophobia levels were at most among 20-22 age group students and neophobia levels of male participants were higher than women.

Many students begin to taste and recognize unknown foods with the socialization of university life (Erten, 2006, s. 93; Edward et al., 2010, s. 303). Therefore, in the present study, it was aimed to determine the food neophobia levels and attitudes of Mersin University Tourism Faculty students towards food. This study is important to determine whether students studying in different departments of the Faculty of Tourism are open to new foods. Therefore, in this study, answers to four questions are sought. These questions are as follows.

RQ₁: Are faculty students afraid of experimenting with new foods?

RQ₂: Do faculty students' food neophobia level differ according to demographic characteristics?

RQ₃: What is the attitude of the faculty students towards food?

RQ₄: Do the attitudes of faculty students towards foods differ according to their demographic characteristics?

Methodology

This research employed both descriptive and exploratory study properties. As it aims to reveal students' levels of food neophobia and their attitudes towards food, it is descriptive (Seyidoglu, 2000, s. 34). However, it is also exploratory research. Because there is a lack of studies on students in this subject in the literature. The population of the study consists of the students of Mersin University, Faculty of Tourism. There are 1200 students registered to the Faculty. However, since there are students who have

enrolled but not attended or left courses, a sample mass was chosen to represent the universe. While determining the sample mass, random sampling method formula ($n = t_{2.p.q} / d_2$) was used (Yazicioglu & Erdogan, 2004; 48). The sample size was calculated as $n = (1.96)^2 \times (0.5) \times (0.5) / (0.05)^2 = 384$ people with 95% confidence level and ± 0.05 deviation. In this study, a random method, one of the non-probability sampling methods, was employed and 370 usable questionnaires were collected.

In the study, a questionnaire was used as a data collection tool. The questionnaire consists of a 10-item "food neophobia" scale, a 5-item scale that measures attitude towards food, and demographic information of the participants. Pliner & Hobden (1992) and Yigit (2018) were used for the food neophobia. The second scale used in the questionnaire was adapted from the studies of Shenoy (2005) and Kargiglioglu (2015). The data for the pre-test were collected on 12-13 December 2018 (50 questionnaires). The pre-test Cronbach's alpha value of the food neophobia "scale was 0.766. The pre-test Cronbach α value of the attitude towards food "scale was found to be 0.690. The data collected for the pre-test were not combined with the data collected later. The data for the study were collected on 17-19 December 2018. The Cronbach α value of the "food neophobia" scale was 0.777, and the Cronbach α value of the attitude towards food "scale was 0.631.

Results

Descriptive statistics such as arithmetic mean, mode, median, and standard deviation were used in the study. In addition, t-test and variance analysis were used to determine students' food neophobia level and their attitude towards food changed according to their demographic characteristics. Demographic information of the students participating in study is presented in Table 1. the ratio of female students is 47% and that of male students is 52.7%. of the students, 98.9% are single and 1.1% are married. "Gastronomy and Culinary Arts" and "Tourism Guidance" students participated to the study at the same rate (34.9%). while the students of Tourism Management department is 30.3%. The majority of the students (31.1%) were first grade and second-grade students. This is followed by fourth-grade students with a ratio of 21.4 % and third grade with a ratio of 16.5%.

Table 1: Demographic Characteristics of Tourism Faculty Students

	f	%		f	%
Gender			Your age		
Woman	174	47,0	15-19	72	19,5
Male	195	52,7	20 and above	297	80,3
Non-Specifying	1	0,3	Non- Specifying	1	0,3
Total	370	100	Total	370	100
Grade			Marital status		
1st grade	115	31,1	Single	366	98,9
2nd grade	115	31,1	Married	4	1,1
3rd grade	61	16,5	Total	370	100
4th grade	79	21,4			
Total	370	100	Department		
Monthly income			Tourism	112	30,3
0-500 TL	103	27,8	Management	129	34,9
501-1000 TL	113	30,5	Gastronomy and		
1001-1500 TL	117	31,6	Culinary Arts	129	34,9
1501 TL and above	37	10,0	Tourism Guidance	370	100
Total	370	100	Total		

The first question that the study seeks answer is to determine whether faculty students have a fear of trying new foods according to the departments they study. They were ranked from highest to lowest by taking the average of the answers given to the items directed to the students. According to Table 2, the students of the Department of Tourism Management agree with the statement that "I am afraid to eat things I have never had before". The most common expression of Gastronomy and Culinary Arts students is that "I like to go to restaurants that offer food from different cultures". The students of the Department of Tourism Guidance participated in the statement that they liked the food of different cultures most.

Table 2: Descriptive Statistics Table for Food Neophobia

Statements	Tourism Management		Gastronomy and Culinary Arts		Tourism Guidance	
	Av.	s.d.	Av.	s.d.	Av.	s.d.
1- I don't trust new foods	3,1964 (6)	1,23638	3,7287(4)	,94167	3,4186(5)	1,14358
2- If I don't know what is in a food, I won't try it	2,5982 (10)	1,35207	2,9922(7)	1,24057	2,7054(10)	1,35441
3- Ethnic food looks too weird to eat	3,3750 (5)	1,20901	3,7984(2)	1,11369	3,5659(3)	1,21092
4- I am afraid to eat things I have never had before	3,4821 (1)	1,25907	3,6589(5)	1,07889	3,3643(6)	1,24961
5- I am very particular about the foods I will eat	2,8214 (8)	1,40279	2,9535(9)	1,24913	2,8605(9)	1,30351
6- I am constantly sampling new and different foods *	3,1161 (7)	1,12902	3,4264(6)	1,07366	3,1318(7)	1,07805
7- At dinner parties, I will try a new food *	3,4107 (4)	1,07010	3,7907(3)	1,05085	3,5426(4)	1,09693
8- I like foods from different cultures *	3,4554 (3)	1,03878	3,7984(2)	1,00296	3,6589(1)	1,07162
9- I eat almost anything *	2,6071 (9)	1,41011	2,9767(8)	1,33735	3,0233(8)	1,39455
10- I like to try new ethnic restaurants *	3,4732 (2)	1,14656	3,8140 (1)	1,08806	3,5736 (2)	1,11646

Answer categories: 1: Strongly disagree, 5: Strongly agree.

* Marked expressions were coded by inverse coding method before analysis.

Since the 5-point Likert scale was used in the study, the fear range of new food trials was taken on a 10-50 score. Therefore, food neophobia was considered under three headings. The score is evaluated as neophilic (likes to try new food) between 10-18, neutral between 19-31 and neophobic between 32-50 (Tuorila et al., 2001: 30; Flight et al., 2003, s. 55; Henriques et al., 2009, s. 85; Olabi et al., 2009, s. 354; Choe & Cho, 2011, s. 673; Yigit, 2018, s. 54). Food neophobia score was determined as 26,82 among the students. Based on the data, it was determined that the food neophobia score of this group was neutral. Looking at the results in detail, it was determined that 63.5% of the faculty students participating in the study were neutral, 23.8% were neophobic and 12.7% were neophilic. According to Table 3, Gastronomy and Culinary Arts students were found to be neophilic (6.5%), while Tourism Guidance students were found to be neophobic (9.7%).

Table.3. Food Neophobia Classification Table

Classification	Tourism Management		Gastronomy and culinary arts		Tourism Guidance		Total	
	f	%	f	%	f	%	f	%
Food neophobic	8	2.2	24	6.5	15	4.1	47	12.7
Neutral	73	19.7	84	22.7	78	21.1	235	63.5
Food neophilic	31	8.4	21	5.7	36	9.7	88	23.8
Total	112	30.3	129	34.9	129	34.9	370	100

When the t-test and variance analysis of the faculty students' food neophobia levels examined according to their demographic characteristics, we found that the results of the food neophobia expresses a significant difference according to gender and marital status. On the other hand, there was no significant difference according to marital status. In similar studies conducted by Pliner & Hobden 1992; Olabi et al., 2015; Birdir et al, 2019, it was determined that there was no significant difference in gender regarding fear of trying new food. t-test performed to determine whether the level of food neophobia of faculty students showed a significant difference according to age (Table 4). It was determined that faculty students aged 20 years and over participated more in the statement "I am afraid to eat things I have never had before" compared to students aged 15-19. Elaborating on this result, it is possible to posit that as students get older, their reluctance to try new foods increases.

Table 4: Distribution of Food Neophobia by Age

Statement	Age	n	Av.	S. Deviation	F value	Level of Meaning
4- I am afraid to eat things I have never had before	15-19	72	3.5000	1.04814	5,310	, 022 *
	20 and above	297	3.5017	1.23607		

Note : *: p <.05; ** p <.01; *** p <.001

Table 5. shows the items with significant differences in the analysis of variance according to the departments students are studying. According to the Post Hoc Test, which was conducted to find out which department students had significant differences compared to others, there were significant differences between the students of the Department of Tourism Management and the students of Gastronomy and Culinary Arts. On the other hand, no significant difference was found in the analysis of variance according to seniority of the students. Analysis of variance according to monthly income showed a significant difference in the item that "If I don't know what is in a food, I won't try it". According to Post Hoc Test results, this difference was found between faculty students with "0-500TL (100 and below)" monthly income and faculty students with "1501TL (300) and above" monthly income. The result shows that faculty students with high monthly income exhibit more neophobic behaviors.

Table 5: Distribution of Food Neophobia by Departments

Statement	Department	n	Av.	S. Deviation	F value	Level of Meaning
1-I do not trust new foods	T. Management	112	3.1964	1.23638	7,051	,001 **
	Gastronomy and Culinary Arts	129	3.7287	,94167		
	T. Guidance	129	3.4186	1.14358		
3-I don't eat because ethnic food seems strange to me	T. Management	112	3.3750	1.20901	3,916	,021 *
	Gastronomy and Culinary Arts	129	3.7984	1.11369		
	T. Guidance	129	3.5659	1.21092		
6-I constantly try new and different foods	T. Management	112	3.1161	1.12902	3,216	,041 *
	Gastronomy and Culinary Arts	129	3.4264	1.07366		
	T. Guidance	129	3.1318	1.07805		
7-I try new foods in social activities	T. Management	112	3.4107	1.07010	3,946	,020 *
	Gastronomy and Culinary Arts.	129	3.7907	1.05085		
	T. Guidance	129	3.5426	1.09693		
8-I like the food of different cultures	T. Management	112	3.4554	1.03878	3,289	,038 *
	Gastronomy and Culinary Arts	129	3.7984	1.00296		
	T. Guidance	129	3.6589	1.07162		
9-I eat almost everything	T. Management	112	2.6071	1.41011	3,203	,042 *
	Gastronomy and Culinary Arts	129	2.9767	1.33735		
	T. Guidance	129	3.0233	1.39455		

Note : *: p <.05; ** p <.01; *** p <.001

Another question in the current study is the attitude of faculty students towards food. As a result of the analyzes, it was found that faculty students do not have a positive attitude

towards ethnic restaurants. However, seeing their favor in the following 3 statements; “participating in food-based activities is one of the most fun things I've done”, “changing my preference from food-related activities to another activity makes me think quite a bit”, and “most of my time is spent with food-based activities”, is possible to claim that faculty students have positive attitudes towards new foods. Finally, in this study, it was analyzed to determine whether the attitudes of the faculty students towards the food showed differences according to their demographic characteristics. T-test and variance analyses showed no significant difference between demographic variables according to age, marital status, and class. Demographic variables with significant differences were gender, department and monthly income. As a result of the t-test, it was found that there was a significant difference in the expression; “one of the most fun things I did to participate in food-based activities” according to gender, and this difference was in favor of female students.

Table 6. shows the items with significant differences in the analysis of variance according to the students' attitudes towards food and the department they are attending. The data were subjected to Post Hoc Test to determine which department students show differences at the following expressions; “I do not like to try the newly opened ethnic restaurants”, “to participate in the activities with food content is one of the most fun things I do”, and “most of my time is spent with food content activities”. Significant differences were found between the students of the Department of Tourism Management and the students of the Department of Gastronomy and Culinary Arts. Based on these results, it can be said that Gastronomy and Culinary Arts students have a more positive attitude towards food than students studying in other departments.

Table 6: Distribution of Attitudes Towards Food

Statement	Department	N	Av.	S. Deviation	F value	Level of Meaning
2-I don't like to try newly opened ethnic restaurants	T. Management	112	3.3929	1.02542	5,998	,003 **
	Gastronomy and Culinary Arts	129	3.8295	,97727		
	T. Guidance	129	3.5194	1.04658		
3-Taking part in cooking activities is one of the most fun things I've done	T. Management	112	3.3214	1.11674	4,872	,008 **
	Gastronomy and Culinary Arts	129	3.7752	1.11271		
	T. Guidance	129	3.4884	1.20621		
4-I spend most of my time with food-based activities	T. Management	112	2.7321	1.13885	5,653	,004 **
	Gastronomy and Culinary Arts	129	3.1860	1.08085		
	T. Guidance	129	2.7752	1.30048		
5-Changing my preference from food-related activities to another activity makes me think a lot	T. Management	112	2.7946	1.14796	3,606	,028 *
	Gastronomy and Culinary Arts	129	3.1395	1.17090		
	T. Guidance	129	2.7829	1.26837		

Note : *: p <.05; ** p <.01; *** p <.001

Conclusion

The aim of this study was to measure food neophobia levels and attitudes towards food among students studying at the Faculty of Tourism. According to the findings, 63.5% of the faculty students were neutral, 23.8% were neophobic and 12.7% were neophilic. It was found that the students of the Department of Tourism Guidance and Tourism Management had food neophobia, but the students of Gastronomy and Culinary Arts were neophilic. Similarly, the studies of Barbera et al., (2018), and Özgen and Türkmen (2018) found that students enrolled in gastronomy and culinary arts department at

Faculty of Tourism showed more positive behaviors in tasting new foods. Surprisingly and contrary to the above findings, Yiğit and Doğdubay (2017) found that students of the gastronomy and culinary arts department were reluctant to try new and different foods. In the current study, it was determined that the students of the Department of Tourism Management were afraid of eating the food they had not eaten before, and that the students of the Gastronomy and Culinary Arts department liked to go to the restaurants offering food from different cultures, and the students of the Tourism Guidance department liked the food of different cultures. In contrast to the present study, Yiğit and Doğdubay (2017) found that students' participation in these statements was low.

There was no significant difference between the faculty students' t-tests which compares their food neophobia levels according to gender and marital status. Olabi et al., (2015), and Birdir et al., (2019) support this finding. However, found that students at the age of 20 and over participated more in the expression that "I am afraid I did not eat before" compared to the students in the other age groups. Based on this finding, it can be said that as students get older, they are more reluctant to try new foods. There was no significant difference in ANOVA analysis according to the class of the students. On the other hand, ANOVA analysis performed to compare monthly income of the students, a significant difference was found in the item "If I don't know what is in a food, I won't try it" Faculty students with a monthly income of 0-500 Turkish Lira (100 dollars and below) are more open to try new foods than students with a monthly income of 1501 Turkish Lira (300 dollars) and above. According to the results of the analysis of faculty students' attitude towards food, it was found that faculty students were not open to try ethnic restaurants. On the other hand, according to the analyzes, no significant difference was found between attitudes of the participants towards food and their demographic variables according to age, marital status, and class. There was a significant difference between students' attitudes towards food and the following demographic variables; gender, department and monthly income, this difference was in favor of female students according to gender. Analysis according to the departments attended, it is found that Gastronomy and Culinary Arts students had a more positive attitude towards food than the students studying in other departments. It is recommended that faculty students who will work in different departments and sectors of the tourism industry after graduation and will work with tourists from different cultures to be open to the foods and cuisines of different cultures and gain experience. Thus, they can have a different perspective by breaking prejudices against new foods. Tourism faculties should also encourage adding elective courses on different cuisines and foods of different cultures. Since there is no study on faculty students, this study may be a source for new research on the subject in the future. For example, similar studies can be applied to factors such as the effects of fear of trying new food on health, insufficiency of nutrition, etc.

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