

**DETERMINATION OF REASONS FOR CHANGES IN EATING BEHAVIOURS OF
UNIVERSITY STUDENTS**

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ABSTRACT

The purpose of this study is to determine changes and reasons for eating behaviors of first-year university students after starting university. Using an eating behavior scale, we assessed the eating behavior before and after commencing university of 330 first year undergraduates who study in Ankara. 84.6% of the students who stated that they had changed their eating behaviors who live away from their family. It has been determined that the majority of the students who change their eating behaviors (77.6%) were experiencing negative change. The students stated that the reasons for the negative change life are generally “not suitable foods for their eating behaviours, not being the one that prepares meals and not have enough time to eat”. It was seen that the scores of the eating behavior of students after started to university were affected significantly residence and department of students ($p<0.05$). Students who studied in health-related departments and stayed with their parents have increased their average scores after they started at the university. Gaining and maintaining healthy eating behaviours is very important for university students who are the future of society. Therefore, interventions should be made to correct the factors that affect the eating behaviors of university students in the negative way. In addition, nutrition education programs aimed at improving healthy eating behaviors of students should be organized.

Keywords: Eating Behavior, University Students, Change

ÖZ

Bu çalışmanın amacı, üniversiteye başladıktan sonra birinci sınıf üniversite öğrencilerinin yeme davranışlarındaki değişiklikleri ve nedenleri belirlemektir. Ankara'da okuyan 330 birinci sınıf lisans öğrencisinin üniversiteye başlamadan önceki ve sonraki yeme davranışları bir yeme davranışı ölçeği kullanarak belirlenmiştir. Yeme davranışlarının değiştiğini belirtenlerin %84,6'sı ailesinden uzakta yaşayan öğrencilerdir. Yeme davranışlarını değiştiren öğrencilerin çoğunun (%77,6) olumsuz bir değişim yaşadığı tespit edilmiştir. Öğrenciler olumsuz değişim yaşamının nedenlerinin genellikle “yemek yeme alışkanlıklarına uygun değil, yemek hazırlayan ve yemek için yeterli zamanı olmayan gıdalar” olduğunu belirtmişlerdir. Öğrencilerin ikamet yerlerinin ve bölümlerinin üniversiteye başladıktan sonraki yeme davranış puanlarını önemli ölçüde etkilediği görülmüştür ($p<0,05$). Sağlıkla ilgili bölümlerde okuyan ve aileleriyle kalan öğrencilerin üniversiteye başladıktan sonraki ortalama puanları artmıştır. Sağlıklı beslenme alışkanlıklarını kazanmak ve sürdürmek, toplumun geleceği olan üniversite öğrencileri için çok önemlidir. Bundan dolayı, üniversite öğrencilerinin yeme davranışlarını olumsuz yönde etkileyen faktörleri düzeltmek için müdahaleler yapılmalıdır. Ayrıca, öğrencilerin sağlıklı beslenme davranışlarını geliştirmeyi amaçlayan beslenme eğitimi programları düzenlenmelidir.

Anahtar Kelimeler: Yeme Davranışı, Üniversite Öğrencileri, Değişiklik

1. INTRODUCTION

Nutrition, which has become one of the most important issues at the present time, in terms of growth, development, maintenance of life and protection of health, the element that forms the basis of health in every period of life. Individuals need to get regular eating behaviours during the childhood and adolescence to maintain a healthy life style in their later life (Güler 2003; Merdol 2008).

Nutrition is important for every person in society, but it constitutes a separate importance for college students. University students are individuals who are in the advanced adolescence period in between the ages of 18-24 and 18-24 ages are an important period to preserve and enhance health also prevent the diseases. The eating behaviours which have been developed in this period have a significant effect for health protection, school performance, and prevention of chronic illnesses those may develop in later ages such as obesity, cardiovascular diseases, diabetes and cancer (Mukudi 2003; Şanlıer 2005). Students become more open to the environmental influences due to communication with new people besides adapt to new living order with the transition to university. While the pre-university life, eating behaviours of students are shaped in the side that family life requires, changing life style with the beginning of university life affects the eating behaviours of students (Erten 2006). In a previous research, it has been found that there are serious problems in the students' eating behaviours with starting the university life students mostly skip their meals, eat single meals and prefer snacks such as sandwiches and bagels. It is also determined that economic strains affect students' eating behaviours, the nutritional status of the students staying in the dormitories deteriorated in parallel with the bad conditions of the dormitory, students consume nutrients only to satisfy their abdomens. It is emphasised that students consume more junk foods and fast-foods, less vegetables and fruits, therefore they take the vitamins, minerals and fibre inadequately, take salt and saturated fats in high amount (Erkol and Khorshid 2004; Mazıcıoğlu and Öztürk 2003).

It was aimed to determine changes in eating behaviours of students who are new at the university in this study, because it is thought that determining the changes of nutrition behaviours among all the university students is beneficial in terms of correcting negative behaviours.

2. MATERIALS AND METHODS

2.1. Study Setting and Population

The descriptive and cross-sectional study aimed to examine the changes in student's eating behaviours who have just started the university. The target population of study was the university students who have just started education and training in 2015-2016 in Ankara. The sample of the study was formed with voluntary 330 students whose study and purpose were announced. Study data were collected between October 2015 and February 2016.

2.2. Study Instruments and Procedure

To analyse the changes of student's eating behaviours, the literature (thesis, articles, scientific researches etc.) has been investigated, after that in consideration with this, a questionnaire form has been prepared. The questionnaire form was filled out by the researchers applying face to face interview method.

The questionnaire form consists of two parts, the first part is about the general information of students and the second part involves Eating Behaviour Scale used to assess student's nutrition behaviours before and after university. There are 58 statements including 30 positive and 28 negative in the scale. 5-point Likert-type scale was used for the evaluation of the responses which are starting from "I definitely do" continued to "I definitely do not". While the calculating the scores, in the positive statements, students are given 5 points for the "I definitely do" response, also 1 point is given for the "I definitely do not" response however in the negative statements, students are given 1 point for the "I definitely do" response and 5 points for the "I definitely do not" response.

2.3. Statistical Analysis

Data obtained from the study were evaluated using SPSS (Statistical Pack for Social Sciences for Windows) packet program. In the statistical analysis of the data gender, department and accommodation were specified as explanatory variables. For the data analysis, percentage (%), absolute value (number), average, standard deviation, chi square test, independent samples t test, paired sample t test and variance analysis (one-way ANOVA) were used. The statistical significance was set at $p < 0.05$.

3. RESULTS

The average age of the students who have included the study is 19 ± 1.43 years. It was determined that 73.0% of the students were woman, 67.0% of them were studying in the health sciences, 70.3% of them changed their city upon the starting of the university and 51.0% of them were staying at the dormitories (Table 1).

Table 1. Socio-Demographic Variables (n = 330)

	Frequency	Percentage (%)
Average age	19.29 \pm 1.43 (Min:17- Max: 27)	
Gender		
Woman	241	73.0
Man	89	27.0
Department		
Health Sciences	221	67.0
Social Sciences	51	15.5
Life Sciences	58	17.5
Departure from the city		
Yes	232	70.3
No	98	29.7
Residence		
With family	105	31.8
At dormitories	168	51.0
At home with friends	40	12.1
At home, alone	8	2.4
With relatives	9	2.7
Total	330	100

Table 2 presented the information on changes in students' eating behaviours. Students who participated in the study stated that 64.8% of them have a change in eating behaviours and 77.6% of those who have change in eating behaviours had a negative change. 50.0% of those who had a positive change in their eating behaviours reported that they had healthier and more regular diet after starting university when their eating behaviours compared to before university life. 59.9% of the students who experienced negative changes stated that they eat unhealthy and they indicated the causes of negative changes mostly are "not suitable foods for their eating behaviours, not being the one that prepares meals and not have enough time to eat".

Table 2. Changes of Eating Behaviours of Students, Negative/Positive Changes and The Reasons of Negative Changes

	Frequency	Percentage (%)
Whether there is a change or not in eating behaviours		
Changed	214	64.8
Not changed	116	35.2
Total	330	100
Evaluation of the change		
Positive changes	48	22.4
Negative changes	166	77.6
Total	214	100
Evaluation of positive changes		
I am eating healthier	10	20.8
I am eating more regularly	14	29.2
I am eating healthier and more regularly.	24	50.0
Total	48	100
Evaluation of negative changes		
I am eating more unhealthy	98	59.0
I am eating more irregularly	58	34.9
I am eating unhealthier and more irregularly	10	6.1
Total	166	100
Reasons of the negative changes*		
I do not have time	46	27.7
I do not have enough money	17	10.2
No one who prepare meals	46	27.7
Meals are not suitable for my eating habits	54	32.5
I'm not adapt to the new life style	14	8.4
I have no appetite	8	4.8
I feel unhappy	11	6.6
*There are more than one responses.		

When we evaluated the changes of students' eating behaviours according to their gender, departments and residence; it has been observed that the majority of the students were women who responded as "my eating behaviours have changed", those who were studying in the health sciences, and those who live separately from their families (at dormitories, alone at home or with friends or with relatives). It was not statistically significant the difference between gender and departments in terms of whether there was a change or not in eating behaviours ($p>0.05$). Contrary to that, it was found that the changes in the residence of students had a statistically significant ($p<0.05$) effect on the eating behaviours (Table 3).

Table 3. Evaluation of Change Situations of Students' Eating Behaviours According to Some Variables

	Changed		Not changed	
Gender				
Woman	159	74.3	82	70.7
Man	55	25.7	34	29.3
			$p = 0.481$	
Department				
Health Sciences	148	69.2	73	63.0
Social Sciences	31	14.4	20	17.2
Life Sciences	35	16.4	23	19.8
			$p = 0.517$	
Residence				
With family	33	15.4	72	62.1
Others	181	84.6	44	37.9
			$p = 0.000$	
Total	214	100	116	100

The scores were obtained from Eating Behaviour Scale of students', before and after starting university in Table 4. The mean score they got, before starting university (SBSU) is 177.98 ± 18.66 and the mean score after starting university (SASU) is 177.20 ± 18.37 . The difference between SBSU and SASU was not statistically significant ($p>0.05$).

Table 4. Average Scores of Students' Get From Eating Behaviour Scale

	Mean \pm SD	Minimum Score	Maximum Score	p
Score Before Starting University (SBSU)	177.98 ± 18.66	117.00	238.00	0.372
Score After Starting University (SASU)	177.20 ± 18.37	131.00	248.00	

When the scores of before starting (SBSU) and after starting university (SASU) from Eating Behaviour Scale were statistically evaluated according to gender, department and residence; it has been found that gender, department and residence have no effect on the scores ($p>0.05$) in addition, department and residence have significant effect on the after starting university scores ($p<0.05$) also it is determined that the difference among departments was in between the health and the life science departments. The average scores of the students who are women, studying health science departments and living with their families have increased after they started to university, the average scores of the students who are men, studying social and life science departments and living apart from their family have decreased (Table 5).

Table 5. Evaluation of Average of Scores Before Starting University (SBSU) and Scores After Starting University (SASU) According to Some Variables

	Variables	Mean \pm SD	Minimum Score	Maximum Score	p
SBSU	Gender				
	Woman	177.73 \pm 18.84	117.0	238.0	0.679
	Man	178.69 \pm 18.26	138.0	235.0	
SASU	Gender				
	Woman	178.19 \pm 18.48	131.0	248.0	0.108
	Man	174.53 \pm 17.90	136.0	233.0	
SBSU	Department				0.664
	Health Sciences	178.64 \pm 17.41	132.0	238.0	
	Social Sciences	176.55 \pm 18.61	134.0	230.0	
	Life Sciences	176.76 \pm 23.04	117.0	235.0	
SASU	Department				0.006 (1-3)
	Health Sciences	179.44 \pm 18.20	137.0	248.0	
	Social Sciences	173.37 \pm 17.21	133.0	217.0	
	Life Sciences	172.03 \pm 18.70	131.0	207.0	
SBSU	Residence				0.473
	With family	179.11 \pm 21.34	132.0	238.0	
	Others	177.48 \pm 17.30	117.0	235.0	
SASU	Residence				0.048
	With family	180.12 \pm 20.11	137.0	227.0	
	Others	175.84 \pm 17.37	131.0	248.0	

4. DISCUSSION

The first year of the university education coincides with the adolescence period, therefore the university students are one of the risky groups in terms of nutritional problems. It is very important for the adolescent period that energy and nutrients are taken at the recommended level, that is to say that adequate and balanced nutrition (Aktaş 1997; Jones and Lebnan 1988). In this period, some risk factors including malnutrition, obesity, cardiovascular diseases, anaemia, vitamin and mineral deficiencies, growth and developmental delay might be occurred with inadequate and unbalanced nutrition (Casey et al.1992; Kapil et al.,2002). It is important that university students who are in adolescence period have healthy eating behaviours due to both their own health and future generation will be the sample model (Tokgöz et al. 1995; Yağmur 1995). For this reason, recent studies have focused on the university students' eating behaviours. In the majority of studies it has been found that the eating behaviours of the university students are changing in the negative way. %64.8 of the university students who were included in this study indicated that the eating behaviours were changed, %77.6 of them stated the changes are negative. When the students who stated that their behaviours changed in the negative way were asked about what reason they thought they were experiencing negative changes, more than half of them (%59.0) specified they were eating unhealthy foods (e.g. increased in fast-food, junk food and convenience food consumption), %34.9 of them specified that they were eating irregular meals (e.g. meal skipping). When the underlying reasons of the negative changes were examined, "non-behavioural foods" (%32.5), "difficulty of preparation" (%27.7) and "shortage of time" (%27.7) took in the first place (Table 2). Meal skipping, unhealthy snacks, frequently fast-food consumption, decreased fruit and vegetable consumption described as the reasons of negative changes in most of the previous studies (Ansari et al. 2012; Bellisle et al. 1995; Ermiş et al. 2015; Ilow 2005; Kasparek et al. 2008; Mazıcıoğlu and Öztürk 2003). Ayhan et al. (2012) in their study, the responses they received when they asked the reasons of the unhealthy and irregular behaviours were "shortage of time" (%69.0), "inappetence and reluctance" (%31.2) and "difficulty in reaching favourite foods" which were similar with this study. Because of the changing living conditions with the obtained information, it is possible to reach the result that the students live in an unplanned-unscheduled way and the satiety-focused movements of the food rather than pay attention to the health related elements such as food value and material quality.

When the changes in students' eating behaviours are examined according to variables as gender, department and residence; the students who are women, who live with their family and who study in health sciences mostly responded as "there is a change" in their eating behaviours in compared to others. However, it is

determined that just residence has a significant statistical effect on eating behaviours among the other variables ($p < 0.05$) (Table 3). Eating with family members increases having healthy eating behaviours also increases fruit, vegetable, and fibre consumption besides, decreases consumption of fried foods, trans fat, saturated fat and soft drinks (Moreno et al. 2010). Papadaki et al. (2007) found out that the students who live far away from their family have changes in eating behaviours also it is determined this changes were in the negative way of decreasing the consumption of vegetables and fruits, increasing the consumption of fatty foods. The students who live away from their family may have the reasons for developing negative eating behaviours than the students who live with their family, those who live with the family do not have to spend extra money on food and do not have to spend extra time to prepare food consequently there is no time limitation or financial restriction.

As the results of study, while the decrease has observed of the average eating behaviour scores after starting university among the students who were male, social and life science students and students who live away from their family, who were female, health science students also the students who live with their family have an increasing average of eating behaviour scores after starting university (Table 5).

The fact is the nutritional behaviours, such as the preference and the consumption of foods, were changing by gender in adolescents which is revealed by various studies. Previous studies reported that energy, total fat and saturated fat intake of male are higher than female, skipping breakfast is more common in female, vegetable and dietary fiber intake is higher in female and they are more likely to avoid high-fat foods (Li et al. 2000; Wardle et al. 2004). Bothmer and Fridlund (2005) found that female students had more healthy eating behaviours than male students; Colić Barić et al. (2003) also found that women were more careful about their eating behaviours than men, they consumed more full-grain foods and low-fat dairy products and they preferred fruit as a snack. Similarly, the studies in our country stated that the healthy behaviours and eating behaviours of female students were better than male students (Özbaşaran et al. 2004; Tambağ 2011). The fact that in many studies women's healthy eating behaviours are better than men, the reason why women are more interested in this issue than men is that they are more sensitive and conscious in are as such as healthy appearance, self-care, and physical protection.

In previous researches, generally the students who study in health sciences have healthier behaviours than the other students in different departments (Kagan and Squires, 1994). Zaybak and Fadiloğlu (2004) reported that the eating behaviours of the students who studied in health sciences were better than the others. Also, in the study conducted by Ermiş et al. (2015) with the participation of 1105 students, it has been found that the students who were studying in the health sciences were more conscious of the health and nutrition related behaviours than the students who were studying in other departments. It can be thought, the fact that the students who studied in the health sciences have better eating behaviours than the other departments can be considered as a result of these students are having more opportunities to get healthy nutrition educations during their university life.

The most important factor which is affecting the nutritional status and eating behaviours of university students is the residence (Seok and Song 2005). The studies are stating that the students who live with their family or relatives have healthier eating behaviours than the students who live apart from their family (İlhan et al. 2014; Köksal 1993). Also, in some researches it has also been shown that the students who live with the family eat more fruits, cooked and raw vegetables and meat and skip breakfast less frequently (Ansari et al. 2007; Ansari et al. 2012; Mazıcıoğlu and Öztürk, 2003). Individuals are living with family or relatives can Access the food they want, more easily than the other individuals and they have less responsibility for food purchasing and preparation, so they have less negative changes in their eating behaviours during transition to university.

5. CONCLUSION

At the end of this study, it has been determined that the vast majority of the students are experiencing changes in eating behaviours and this change is mostly in the negative direction. Most of the students who made negative evaluation attributed this to increased consumption of fast-food, ready to serve food and snacks, and particularly lack of foods to comply with the eating behaviours, lack of a person to prepare and lack of time were cited as the reason for the negativity. It has been observed that the majority of the students who have a negative change in eating behaviours are the students who live apart from their family. The relationship between the presence or absence of change in behaviours and the residence, and the relationship between the scores from the Eating Behaviour Scale of the students at the beginning of the university with variables of residence and department were found to be statistically significant. Detecting the

changes in the students' eating behaviours and correction of negative changes are important in preventing the problems that unhealthy nutrition can cause in young people. In the study, it was determined that specially, the students who live away from their families showed negative eating behaviours. It is important to determine the causes of the change in the nutritional behaviour of the students who live away from their families in order to take necessary precautions. Providing the nutrients which are suitable for the healthy and regular eating behaviours, will contribute to have positive changes in eating behaviours, especially for the students living away from their families. For this reason, it is important for the students who live away from their families to provide sufficient and balanced menus, to give regularly nutrition education and to create of sports facilities in the schools and dormitories. The give of nutrition education will contribute to the correct of negative nutritional behaviour. The growing new generation is the assurance of our future. A successful society is made up of healthy young people. Thus, it is important to disseminate the education programs which affect the eating behaviours of university students in order to create healthy and conscious generations.

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