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# **DETERMINING THE ATTITUDES OF UNIVERSITY STUDENTS REGARDING HEALTHY NUTRITION**

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#### **ABSTRACT**

This study aimed to determine university students' attitudes regarding healthy nutrition according to some demographic characteristics. The research was a quantitative study. The research was conducted with the participation of 160 volunteer students studying at Artvin Coruh University. The sample group was determined by simple random method. The study was carried out by applying at a questionaire with 27 questions consist of two parts. The survey form of the study in the first episode 6 of which were demographic characteristics and 21 questions were the Attitudes towards Healthy Eating Scale. The Attitudes towards Healthy Eating Scale developed by Tekkurşun Demir and Cicioğlu (2019). The skewness and kurtosis values were taken into count and the data were normally distributed. Followingly, statistical analysis of the data, independent groups T-test, one-way analysis of variance (ANOVA), and Pearson correlation analysis were used. As a result of the analysis performed, no significant difference between the students' Attitudes towards Healthy Eating (ATHE) scores and the variables of gender, age, body mass index, and department of education; Significant differences were determined according to the status of doing sports (p<.05). According to the Post Hoc (SCHEFFE) results made to determine the source of the difference; In the dimension of positive eating habits, the mean score of those who do sports as a hobby and as a license was higher than those who do not do sports, and in the total score of ATHE, the mean score of those who do sports under license was significantly higher than the mean of those who do not do sports.

**Keywords:** Healthy nutrition, attitude, university students

#### **INTRODUCTION**

Nutrition; In addition to growth and development, it should be sufficient, balanced, and regular consumption of all nutrients to be healthy. However, it makes serious contributions to both the physical and mental development of the individual. Dissatisfaction with physical appearance arises due to the difference between the required body weight and the current body weight. However, in addition to the current body weight, the positive or negative feelings and thoughts of the person's physical appearance are also an important factor in the dissatisfaction with one's own body (Potter et al., 2004). Nutrition is a behavior that contributes to the individual not only physiologically but also socially and helps to increase the quality of life and facilitate the adaptation to the social environment (Müftüoğlu, 2003). Gönen and Ceyhan (2022) found that there is a positive correlation between the attitude towards healthy nutrition and self-esteem in their study with the students of the faculty of sports sciences. However, the main purpose of nutrition is to take and use as much food as needed, taking into account variables such as weight status and physical activity level, as well as demographic characteristics of the individual. In addition to the support of growth and development, the foods consumed daily should also contribute to the supply of energy in parallel with energy expenditure. Health and nutrition are closely related like two interlocking rings (Onurlubaş, 2011). A healthy life is to control all the behaviors that affect the health of the individual. Behaviors such as adequate and balanced nutrition, regular exercise, avoidance of bad habits, health responsibility, and coping with stress are healthy lifestyle behaviors (Stanhope, 1996). Human health is affected by factors such as nutrition, heredity, environment, and climatic conditions. Undoubtedly, the most important of these is nutrition and it forms the basis of health at every stage of life (Düreyt, 2000).

A healthy diet is about protecting, improving health, and reducing the risk of chronic diseases. At the same time, the concept of healthy nutrition is to meet all the nutritional elements needed, especially those with low-fat content, high fruit-vegetable consumption, and abundant liquid content, taking into account the variables such as age, gender, and physiological structure of the individual (Baysal, 2002). If even one of the nutrients is consumed incompletely, the growth, development, and normal functioning of the body is interrupted and it also causes health problems. The nutritional requirement is affected by factors such as age, gender, physical activity level, disease status, and genetic structure (Baysal, 2003). Healthy eating; It is the consumption of various nutrients for growth and development, sustaining life, protecting, improving and improving health, and increasing the quality of life. Nutritional status of the individual; genetic characteristics, age, gender, physical activity level, habits (such as smoking, alcohol), social and environmental conditions, education level, stress, working conditions and benefiting from health services (Özenoğlu et al., 2018).

School-age children have high nutritional needs because they are in a period of rapid growth and adolescent. Parents provide a nutritional environment for their child's first experiences with food and nutrition. In addition, the environment includes parents' own eating habits and child feeding practices (Ece, 2021). If individuals acquire regular eating habits during childhood and adolescence, their probability of living a healthy life in adulthood increases (Favora et al., 2003). The adolescent period coincides with the first years of university education. During this period, physical growth and development are quite rapid, and the energy and nutritional requirements are

also increasing. However, changing living conditions and changing eating habits also affect this process. The most basic problem in students' eating habits is economic conditions and lack of knowledge. The increase in the frequency of fast-food nutrition, which is very rich in fat and calories, and the decrease in regular physical activity cause an increase in the rates of obesity and eating disorders (Spear, 2002). In many studies, it is observed that there are very serious problems related to the nutrition and eating habits of young people in our country. Although it is thought that this situation is only due to economic difficulties, students do not eat regular meals, they consume more foods such as sandwiches and bagels due to practicality and it is determined that the students staying in dormitories, etc. do not have a healthy diet due to the inadequacy of their conditions and they only fill their stomachs (Garibağaoğlu et al., 2006).

The adolescence period, which is called the youth period, consists of processes such as the desire to be free and independent, the desire to be free and independent, desire to find a place in social life, the desire to spend most of their time outside, integrating with their peers, and anxiety for the future. It is called the period in which he passed and completed his university education (Cohn, 1995). For university students to be healthy both physically and mentally and at the same time to be successful in their education life, it is extremely important that they eat a balanced and regular diet according to their body needs without skipping meals (Vançelik et al., 2007). In case of insufficient and unbalanced nutrition, can cause regression in growth and development, as well as diseases such as obesity, cardiovascular diseases, anemia, and vitamin and mineral deficiencies (Kapil, 2002). At the same time, when making healthy nutrition a lifestyle is evaluated in this context, the study is aiming to determine the attitudes of university students about healthy eating according to some demographic characteristics.

### **METHOD**

**Model of the Study:** In the study, a descriptive and correlational survey method for was preferred. Descriptive survey patterns are a way of working that aims to describe a situation that existed in the past or today as it is. Correlational survey methods, on the other hand, are research methods that aim to measure the presence and/or degree of co-change between two or more variables (Karasar, 2004).

The study was unanimously decided by the ethics committee members of Artvin Çoruh University Scientific Research and Publication Ethics Committee that there was no ethical or scientific objection to the study and the study was found appropriate (Decision number: E-18457941-050.99-45416).

**Forming Volunteer Groups:** The universe of the research consist of an average of 3000 studies studying Artvin Çoruh University. If the sample group consist of 160 volunteer students, 82 female, and 78 male, studying at Artvin Çoruh University. The sample group was determined by simple random method.

**Data Collection Tools:** In the study, a questionnaire form was applied to the students. After the questionnaire form was arranged on google-form, the research announced on social media and performed with remote voluntary participation. The survey questions consisted of two parts. 9 questions on demographic characteristics and 21 questions on the Attitudes towards Healthy Eating Scale (ATHE).



Personal Information Form: It contains 6 questions to obtain participants' age, gender, department, BMI, sports status.

Table 1. Descriptive Statistics Results of Students

Gender	n	%	$\overline{X}$
Female	82	51,2	
Male	78	48,8	
Department	n	%	
Physical Education and Sports department	62	38,8	
Classroom teaching	49	30,6	
Other	49	30,6	
вмі	n	%	
Underweight	12	7,5	20,83±1,88
Normal	114	71,3	
Overweight	34	21,3	
Sport Status	n	%	
Do not doing sport	35	21,9	
Doing sport as a hobby	109	68,1	
Doing sport under License	16	10,0	
Total	228	100,0	

<sup>\*</sup> Significant difference with p<0.05

According to Table 1, 51.2% (n=82) of the students were female; 48.8% (n=78) were male; 38.8% were in the Physical Education and Sports department (n=62), 30.6% were in the department of classroom teaching (n=49), 30.6% were in other departments (n=49), 7.5% (n=12) were in the underweight category, 71.3% (n=114) were in the normal weight category, and 21.3% (n=34) were in the overweight category. In terms of doing sports, it was determined that 21.9% (n=35) did not do sports, 68.1% (n=109) did sports as a hobby, and 10.0% (n=16) did sports under license. Finally, it was determined that the mean age of the students was 20.83±1.88.

Attitudes towards Healthy Eating Scale (ATHE): The validity and reliability analysis of the scale was performed by Tekkurşun Demir and Cicioğlu (2019). ETHA included 21 questions consisting of Knowledge About Nutrition (NAN), Emotions About Nutrition (EAN), Positive Nutrition (PN), and Malnutrition (MN) sub-dimensions. The lowest score that can be obtained from the scale was 21, and the highest score was 105. It was explained that the score which participants get from the ATHE classified as attitude toward healthy eating with 21 points very low, 23-42 points low, 43-63 points medium, 64-84 points high, and 85-105 points ideally high. The ratings of the positive items on the scale were "Strongly Disagree", "Disagree", "I am undecided", "Agree", and "Strongly Agree".

Data Analysis: The collected data transferred to the SPSS program by making statistical coding. A normality test was performed to decide on the analysis to be applied to the data. The skewness and kurtosis values of the data were checked. It was determined that the values that go there are in the range of -2.....+2. The obtained values were accepted as suitable for normal distribution (George and Mallery, 2001, pp. 86-87). Therefore, one-way analysis of variance (ANOVA), independent groups t-test, and Person correlation analysis were used to analyze the data.

#### **FINDINGS**

In this section, the results obtained as an outcome of the analysis of the data collected through the scales of the participants participating in the research are included to solve the research problem. Explanations and comments were made based on the results.

Table 2. The Results of the Relationship between the Students' Happiness Scores and Their Ages

		Knowledge About Nutrition	Emotions About	Positive Nutrition	Malnutrition	ATHE
A	r	,10	,07	,13	,04	,13
Age	р	,22	,39	,10	,58	,10

<sup>\*</sup> Significant difference with p<0.05

In Table 2, the results of the "Pearson correlation analysis" show the relationship between the students' ATHE scores and their ages were given. As a result of the analysis, no significant relationship was found between the students' ATHE scores and ages (p>.05).

Table 3. Comparison Results of Students' ATHE Scores by Gender

	Gender	n	$\overline{\overline{X}}$	sd	t	р
Knowledge About	Female	82	20,13	3,01	70	4.4
Nutrition	Male	78	19,71	3,85	<del></del> ,78	,44
Emotions About Nutrition	Female	82	16,41	4,05	27	72
Emotions About Nutrition	Male	78	16,64	3,76	<del>-</del> -,37	,72
Positive Nutrition	Female	82	15,76	4,38	F0.	FC
Positive Nutrition	Male	78	16,15	4,16	<del>-</del> ,59	,56
Malnutrition -	Female	82	17,50	4,15	O.F.	40
iviainutrition -	Male	78	18,04	3,82	<del></del>	,40
ATUE	Female	82	69,80	10,28	45	CF
ATHE -	Male	78	70,54	10,24	<del>-</del> -,45	,65

<sup>\*</sup> Significant difference with p<0.05

In Table 3, the results of the "independent groups t-test" used in the comparison of students' ATHE scores by gender were given. As a result of the analysis, no significant difference was found in the ATHE scores of the students according to gender (p>.05).

 Table 4. Comparison Results of Students' ATHE Scores According to BMI

		BMI	n	$\overline{X}$	sd	F	р
Knowledge Abo Nutrition		Underweight	12	19,17	3,19		,73
	About	Normal	114	20,00	3,26	,32	
	_	Overweight	34	19,94	4,11		
Emotions Ab Nutrition		Underweight	12	16,25	3,47		,06
	About	Normal	114	16,14	3,86	2,79	
	_	Overweight	34	17,91	3,99		
Positive Nutrition		Underweight	12	14,50	5,05		
		Normal	114	15,85	4,32	1,40	,25
		Overweight	34	16,79	3,67		

	Underweight	12	16,92	3,37			
Malnutrition	Normal	114	17,70	4,20	,55	,58	
	Overweight	34	18,26	3,41			
	Underweight	12	66,83	11,16			
ATHE	Normal	114	69,69	10,19	2,01	,14	
	Overweight	34	72,91	9,73	<u> </u>		

<sup>\*</sup> Significant difference with p<0.05

In Table 4, the results of the "one-way analysis of variance (ANOVA)" used in the comparison of students' ATHE scores according to their BMI status were given. As a result of the analysis, no differences were found in the ATHE scores of the students according to BMI (p>.05).

 Table 5. Comparison Results of Students' ETHA Scores According to Doing Sport Status

	Doing Sport Status	n	$\overline{X}$	sd	F	р	Difference
	Noª	35	19,09	3,45			
Knowledge About Nutrition	As a hobby <sup>b</sup>	109	19,96	3,46	2,79	,07	
Nutrition	Licensed <sup>c</sup>	16	21,50	2,85			
	No <sup>a</sup>	35	16,20	4,44			
Emotions About Nutrition	As a hobby <sup>b</sup>	109	16,59	3,61	,18	,84	
Nutrition	Licensed <sup>c</sup>	16	16,81	4,76			
	Noa	35	14,49	4,12			
Positive Nutrition	As a hobby <sup>b</sup>	109	16,00	4,18	6,04	,01	c-a b-a
	Licensed <sup>c</sup>	16	18,81	3,85			IJ-a
	Noa	35	16,74	4,00			
Malnutrition	As a hobby <sup>b</sup>	109	18,01	3,74	1,52	,22	
	Licensed <sup>c</sup>	16	18,31	5,29			
	Noa	35	66,51	11,16			
ATHE	As a hobby <sup>b</sup>	109	70,56	9,38	4,64	,01	c-a
	Licensed <sup>c</sup>	16	75,44	11,51			

<sup>\*</sup> Significant difference with p<0.05

In Table 5, the results of the "one-way analysis of variance (ANOVA)" used in the comparison of the students' ATHE scores according to their sporting status were given. As a result of the analysis, significant differences were found in the ATHE scores of the students according to their sports status (p<.05). According to the Post Hoc (SCHEFFE) results performed to determine the source of the difference; In the dimension of positive eating habits, the mean score of those who did sports as a hobby and under a license were significantly higher than those who did not do sports, compared to those who do not do sports, in the total score of ATHE, the mean score of those who did sports under license.

		Department	n	Χ	sd	F	р
Knowledge Nutrition		Physical Education and	62	20,23	3,44		
	About	Classroom Teaching	49	19,76	3,21	,39	,68
Nutrition		Other departments	49	19,71	3,70	<del></del>	
		Physical Education and	62	16,56	3,69		
Emotions Nutrition	About	Classroom Teaching	49	16,31	3,61	,13	,88
Nutrition		Other departments	49	16,69	4,48		
		Physical Education and	62	16,10	4,62		
Positive Nutritio	n	Classroom Teaching	49	15,63	4,07	,19	,82
		Other departments	49	16,08	4,05		
		Physical Education and	62	18,24	4,16		
Malnutrition		Classroom Teaching	49	17,57	3,43	,77	,47
		Other departments	49	17,35	4,27		
		Physical Education and	62	71,13	9,41		
ATHE		Classroom Teaching	49	69,27	9,87	,49	,62
		Other departments	49	69,84	11,61		

Table 6. Comparison Results of Students' ATHE Scores According to Their Departments

In Table 6, the results of the "one-way analysis of variance (ANOVA)" used in the comparison of the students' ATHE scores according to the departments they studied were given. As a result of the analysis, no significant difference was found in the ATHE scores of the students according to the departments they studied (p>.05).

## **CONCLUSION and DISCUSSION**

Healthy nutrition and regular physical activity were processes that shape human life, increasing the quality of life and satisfaction and contributing to physical and social well-being. Healthy nutrition should be balanced and regular, especially in young people without skipping meals and in sufficient quantity. Healthy nutrition can help them to contribute both academically and in terms of health (Vançelik et al., 2007). It can be said that unbalanced nutrition causes sleep disorders. Besides affecting physical, psychological and metabolic processes negatively, sleep disorders also affect academical success and quality of daily life negatively (Çakır & Erbaş, 2021). Also, it was very important to made a healthy eating lifestyle. When evaluated in this context, the aim of this study was to determine the attitudes of university students about healthy eating according to some demographic characteristics.

When the demographic characteristics of the students were evaluated; 51.2% (n=82) were female, 48.8% (n=78) male; 38.8% were in the Physical Education and Sports department (n=62), 30.6% were in the department of classroom teaching (n=49), 30.6% were in other departments (n=49). It was determined that 7.5% (n=12) were underweight, 71.3% (n=114) were normal weight, and 21.3% (n=34) were overweight. In terms of doing sports, it was determined that 21.9% (n=35) did not do sports, 68.1% (n=109) did sports as a hobby, and 10.0% (n=16) did sports under license. Finally, it was determined that the mean age of the students was 20.83±1.88.

It was not any significant difference was found between the students' Attitudes towards Healthy Eating (ATHE) scores and the gender variable (p>.05). Saygin et al. (2010) did not find a significant difference in terms of gender

<sup>\*</sup> Significant difference with p<0.05

in a study that determined the nutritional behaviors between 46 female and 48 male students. In another study, there was not any difference observed between gender groups in the variants of healthy eating attitudes and social appearance anxiety levels by gender (Çakır & Karaağaç, 2021). In the study, there was not any significant difference was found between the students' Attitudes towards Healthy Eating (ATHE) scores and the age variable (p>.05).

There was not any significant difference found between the students' Attitudes towards Healthy Eating (ATHE) scores and the body mass index variable (p>.05). When the literature was examined, differences were observed in the body mass index variable, unlike our study. The reason for this difference was thought to be due to the sample group. In a study conducted by Vassigh (2012), BMI values of students were examined and it was found that girls were more underweight than boys. While this rate was found to be <18,5 kg/m2 in 2.8% of males; 17.9% of females had a BMI of <18,5 kg/m2. In another study, it was observed that the body weight of the students was normal according to the body mass index, but 17.39% of the female students were underweight (Saygin et al., 2010). In another study, the mean scores of the participants with normal body mass index and the obese participants were examined, and it was found that the scores of the normal participants were significantly higher than the mean scores of the obese participants (Çakır & Karaağaç, 2021). In the study, there was not any significant difference found between the students' Attitudes Towards Healthy Eating (ATHE) scores and the variable of the department studied (p>.05).

A significant difference was found between the students' Attitudes towards Healthy Eating (ATHE) scores and the variable of doing sports (p<.05). According to the Post Hoc (SCHEFFE) results made to determine the source of the difference; In the dimension of positive eating habits, the average score of those who did sports as a hobby and as a license was significantly higher than those who did not do sports, and in the total score of ATHE, the average score of those who did sports under license was significantly higher than the average of those who did not do sports. Vassigh (2012) found in his study that regular exercise was more common in males than in females. 70.5% of boys and 64.5% of Females who exercise regularly prefer walking, aerobic-step sports, and walking, swimming was followed by 20.3% for males, tennis, and dance with 21.5% for females. Gordon-Larsen (2004) stated in their study that obesity develops and is permanent in individuals close to the end of adolescence.

## **RECOMMENDATIONS**

- \* Informative and educational seminars on healthy nutrition should be organized.
- \* Healthy eating awareness should be raised among young people.
- \* The number of samples should be increased.
- \* The socio-economic level variable of the family should be added.

# **ETHICAL TEXT**

"In this article, the journal writing rules, publication principles, research and publication ethics, and journal ethical rules were followed". All responsibilities related to the article belong to the responsible author(s). The study was unanimously decided by the ethics committee members of Artvin Çoruh University Scientific Research

and Publication Ethics Committee that there was no ethical or scientific objection to the study and the study was found appropriate (Decision number: E-18457941-050.99-45416).

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