ORIGINAL ARTICLE

Relationship Between the Personal Characteristics and the Attitudes of Adequate and Balanced Nutrition of the Students at the Faculty of Sports Sciences

Ibrahim Dalbudak[1], Oznur Yasar[2], Yakup Akif Afyon[3], Sinan Celikbilek[3], Olcay Mulazimoglu[3]

[1] Atabey Vocational School, Isparta University of Applied Sciences, Isparta, Turkey; [2] Faculty of Science, Sociology, University of Namık Kemal, Tekirdag, Turkey; [3] Faculty of Sports Sciences, Mugla Sitki Kocman University, Mugla, Turkey.

Abstract. *Study Objectives:* This study aimed to examine the relationship between personality traits and adequate and balanced nutrition attitudes of students studying in different departments in the Faculty of Sport Sciences at Ege University and actively doing sports in different sports branches. *Methods:* In this study, the "Adequate and Balanced Nutrition Scale" was used to evaluate the nutritional habits of the students and the "Ten-item Personality Scale" was used to measure the personality traits. "Personal Information Form" was used to evaluate the data regarding the demographic characteristics of university students. SPSS 23.0 program was used in the analysis of the data. Totally, 186 students voluntarily participated in the study. *Results:* Considering the relationship between the ten-item personality scale and its subscales, and the attitude scale and its subscales about adequate and balanced nutrition, important results stand out. As individuals' knowledge, anxiety and interest in adequate and balanced nutrition increase, their general personality scale scores also increase. In addition, as individuals' extraversion, neuroticism, conscientiousness and agreeableness levels increase, their attitudes towards adequate and balanced nutrition also increase (p<0.05). It is observed that the education system in the faculty of sports sciences effects the personality traits of the students and their attitudes towards adequate and balanced nutrition. A significant increase is observed in the personality traits of the students and their attitudes towards adequate and balanced nutrition. *Conclusion:* It was concluded that there was no difference between the personality traits of the students at the faculty of sports sciences and their attitudes towards adequate and balanced nutrition.

Key words: Sport Sciences, Student, Personality Traits, Adequate and Balanced Nutrition

Introduction

Nutrition is the use of nutrients for growth, maintenance of life and protection of health. Nutrition maintains its importance in every period of human life from the womb to old age (1). Objectives that direct individuals to nutrition can be listed as; to satisfy hunger, to have adequate and balanced nutrition, to feel pleasure, to be satisfied, to comply with dignity and customs, etc. When a person is hungry, he feels the need to eat something to satisfy his hunger. However, while hunger is being eliminated, malnutrition can occur. For this reason, individuals need to be conscious and educated about adequate and balanced nutrition (2). For humans to survive, they need to take food like all other living things. Nutrition has special importance in sustaining human life, raising and protecting the quality of life.

Within the holistic definition of health, nutrition is among the leading environmental factors affecting health. However, for individuals to reach their goal of being healthy, they need to be careful about "adequate and balanced" nutrition (3). Adequate and balanced nutrition is the intake of foods that the body needs in sufficient quantities, at the appropriate time, and in a balanced way. No matter how harmful malnutrition is for human health, overfeeding is very harmful and dangerous. It should not be forgotten that the protection and development of health are possible by protecting one's health and developing health awareness (4).

It is not possible for a society without adequate and balanced nutrition to live in a healthy and workable strength, and to increase economic and social welfare. Adequate and balanced nutrition is the basic condition not only for the vital activities of individuals but also for the development of the whole society. With the positive effects of adequate and balanced nutrition on mental development and work efficiency, increasing life expectancy, and reducing health risks, consumers have developed an understanding of correct and balanced consumption instead of growing consumption (5).

Nutrition is a prominent issue in today's consumer society. Individuals, especially to provide their quality of life, must have a healthy body in order to be useful and productive for society. Nutritional habits come to the fore in the protection of body health (6). Adequate and balanced nutrition is an important issue for everyone. However, when it comes to sports, nutrition becomes more important. Because there is an important relationship between nutrition and performance. As stated in the studies, it has been observed that nutrition has effects on physical activity performance in individuals. In addition, within the concept of sports, it is argued that nutrition should be primarily provided to individuals who are interested in sports as a professional and/or amateur within the framework of education and practice (7). Particularly, the athletes who receive training are expected to pay attention to their nutrition in the sociological sense. The students of the Faculty of Sports Sciences, the athletes of the future, should have good nutritional knowledge and habits so that they can instill good eating habits in society. According to the sociology of education, it is an important issue for athletes to be role models for the society in the field they receive their education. In addition, adequate and balanced nutrition is related a lot to personality traits.

Although personality is expressed as the whole of the behavioral patterns that distinguish the individual from other individuals and show a certain consistency, in other words, all of the mental, emotional and physical reactions that direct the individual's life, there is not a certain definition of personality that all experts agree on. In order to express the content of the concept of personality, it has been stated that more than fifty definitions, which are not very close to each other, can be used from the point of view of many different branches of science such as philosophy, theology, sociology, psychology, and law (8). On the other hand, personality is the sum of the characteristics that an individual brings from birth and develops in society. Personality is the most important factor that makes people different from each other or others. Personality is the structure of relationships that a person develops with himself and his environment uniquely. Personality includes all psychological, inherited, and acquired abilities, motives, emotions, wishes, habits, and behavioral characteristics of the individual and is constantly under the influence of stimuli coming from the internal and external environment (9). In this sense, it is seen that the sociological environment is important in the formation of personality. According to John, Hampson and Goldberg (10), personality traits are emotional reactions that occur depending on the situation.

The basic personality traits of individuals affect their perspectives and reactions to events. Personality traits and people's evaluations of events have various effects on understanding and explaining what approaches, attitudes, and behaviors people adopt in interpersonal conflicts, traumatic events, and conflict resolution processes (11).

Various factors makeup personality. These are various hereditary characteristics, socio-cultural characteristics, family factors, and social class factors, geographical and physical factors. Apart from these, in today's world, mass media has a unique place in shaping personality. In addition, the adult group within the social groups that individuals belong to is one of the factors that affect the formation of personality. Because, while determining some ideals or regulating their behaviors, individuals take some of the members

adopted by the social group they belong to as an example. These people, who are taken as role models, play an important role in the personality of the individual. The adult group within the social groups that individuals belong to is also one of the factors that affect the formation of personality. Because, while determining some ideals or regulating their behaviors, individuals take some of the members adopted by the social group they belong to as an example. These people, who are taken as role models, play an important role in the personality of the individual. The strong components in the formation of personality are character, temperament, abilities, etc. (12).

One of the most widely used approaches in the study of personality traits is the five-factor personality model. The model's capacity to help explain the human behavior has drawn the attention of researchers from other disciplines, including sociology, management, and marketing (13). The five-factor personality model is interesting in terms of providing integration of a wide range of personality constructs, thus relatively facilitating reconciliation between researchers with different orientations; providing opportunities for systematically examining the relationships between personality traits and behaviors, and providing a general definition of personality by basing personality on five sub-factors. The Five Factor Theory of Personality is defined as the classification of all personality traits in five basic dimensions based on observation, universally and completely (14). This classification consists of five factors as openness, conscientiousness, extraversion, agreeableness, and neuroticism (15).

The factor of openness, which is one of the five factors, consists of personality traits such as being interested, curious, being open to innovations, independence, creativity, and being open to change. Individuals with a high level of openness are considered productive individuals who enjoy producing new ideas, are adventurous, interested in art. Individuals with a low level of openness are defined as conservative, traditional, fixed-minded, and closed to innovations. The other factor, emotional balance is called neuroticism. Individuals with a high level of neuroticism are evaluated as anxious, insecure, angry, and touchy individuals. It is stated that individuals with a low level of neuroticism are comfortable, emotionally stable, stay calm in stressful situations, do not get angry easily, have high self-confidence, and

tend to experience positive emotions (16). The extraversion factor consists of features such as being energetic, talkative, friendly, excited and enthusiastic, and social. Individuals with a high level of extraversion are evaluated as individuals who can easily communicate with people, like to be with people, are prone to cooperation, and are sympathetic. According to Watson and Clark, extroverted individuals are also ambitious, passionate, and dominant types, who tend to exaggerate to a certain extent in their situations. According to Hurtz and Donovan, in the studies conducted, significant and positive correlations were observed between the level of extraversion of highly extroverted individuals and their performance in their work (17). Individuals with a low level of extraversion, in other words, introverted, are evaluated as introverted, do not like to socialize, keep a distance from people, tend to remain silent, shy, and hesitant. In addition, it was stated that individuals with high extrovert personality traits are sensitive to reward. The personality traits of the agreeableness factor are; benevolence, forgiveness, kindness, tolerance, respectful and flexibility. Individuals with a high level of agreeableness are evaluated as loving, giving, and compassionate individuals, while individuals with a low level of agreeableness are evaluated as vindictive, arrogant, stubborn, competitive, disagreeable, and difficult to compromise (18). The conscientiousness sub-dimension consists of features such as being disciplined, sense of duty, conscientiousness, and orderliness, being attentive and careful. Individuals with a high level of conscientiousness are evaluated as individuals who tend to be successful, ambitious, planned, and think before they act. Individuals with a low level of conscientiousness are evaluated as disorganized, undisciplined, prone to laziness, and far from duty consciousness (19); (20) cited (16). The theoretical basis of this study was made according to this five-factor personality model and the relationship between personality traits and adequate and balanced nutrition was examined.

Materials and Methods

Research Model

In this study, descriptive and correlational survey methods, which are general survey models, were used.

Forming Volunteer Groups

Students studying at the faculty of sports sciences at the Ege University were included in the research. Students voluntarily participated in the study online via a google form.

Data Collection Techniques

Personal Information Form, Ten-item Personality Scale, and Adequate and Balanced Nutrition Scale were used as data collection techniques.

Personal Information Form

In obtaining the data, the "Personal Information Form" including the questions, prepared by the researcher, related to the demographic characteristics such as gender, age, department, and location was used.

Ten-item Personality Scale

The Ten-Item Personality Inventory is a ten-item scale that measures personality traits developed by Gosling et al. (21). It measures five important personality traits; openness, conscientiousness, extroversion, agreeableness, and neuroticism. The scale is a seven-point Likert type. The translation and adaptation of the scale into Turkish was carried out by Atak (22).

The 10-item personality scale consists of 5 subscales. The highest score to be obtained from 10 items is 70 and the lowest score is 10.

i. Extraversion: Item 1 and item 6 (Item 6 is reverse scored.) The higher the score, the higher the extraversion. (The lowest 2 and the highest 14 points can be obtained.)

ii. Neuroticism: Item 9 and item 4. (Item 4 is reverse scored.) A high score indicates that the individual is more emotionally balanced. (The lowest 2 and the highest 14 points can be obtained.)

iii. Openness: Items 5 and 10 (item 10 is reverse scored. Higher scores indicate that the individual is more open to experiences. (The lowest 2 and the highest 14 points can be obtained.)

iv. Conscientiousness: Item 3 and item 8 (item 8 is reverse scored) Higher scores indicate that the individual has a higher sense of Conscientiousness. (The lowest 2 and the highest 14 points can be obtained.)

v. Agreeableness: Item 2 and item 7 (item 2 is reverse scored) Higher scores indicate that the individual has a more agreeable character.

Adequate and Balanced Nutrition Scale

Adequate and balanced nutrition scale is a scale consisting of fourteen items and developed by ahin (23). The scale consists of three subscales: Knowledge, Anxiety, and Interest. The scale is a five-point Likert type.

The 14-item attitude scale about adequate and balanced nutrition consists of 3 subscales. The lowest score that can be obtained from 14 items is 14 and the highest score is 70.

i. Knowledge: Items 1, 2, 3, 4 and 5 (Item 5 is reverse scored.) As the score increases, the knowledge about adequate and balanced nutrition increases. (The lowest 5 and the highest 25 points can be obtained.)

ii. Anxiety: Items 6, 7, 8, 9, 10 (Items 7, 8 and 10 are reverse scored.) A high score indicates that the individual has higher anxiety about adequate and balanced nutrition. (The lowest 5 and the highest 25 points can be obtained.)

iii. Interest: Items 11, 12, 13, 14 (all 4 items are reverse scored.) A high score indicates that the individual has more interest in adequate and balanced nutrition. (The lowest 4 and the highest 20 points can be obtained.)

Statistical Analysis

In the tables below, summary statistics based on the demographic characteristics of the scale score means are given. In addition, since the mean scores of the scale provided the assumption of normal

distribution, the differences between the groups were tested with the "Independent samples t-test" and "One-way analysis of variance (ANOVA)" tests, and from which groups the differences occurred was tested with the "Tukey Post Hoc" test.

Results

The distribution of demographic characteristics of 186 individuals who participated in the study was analyzed by frequency analysis and given in the table.

When the skewness and kurtosis values of the scale and subscales are examined, it is seen that all of them are between -2 and +2. If the skewness and kurtosis values are between -2 and +2, the assumption of the normal distribution can be accepted for the scale score values (24).

The Cronbach's Alpha value, which measures the reliability of the 10-item personality scale with 186 individuals, was found to be α=0.848. In addition, extraversion subscale Cronbach's Alpha value was α=0.816, neuroticism subscale Cronbach's Alpha value was α=0.712, openness subscale Cronbach's Alpha value was α=0.465, Conscientiousness subscale Cronbach's Alpha value was α=0.594, agreeableness subscale Cronbach's Alpha value was α=0.617.

Analysis of the "Ten-Item Personality Scale" and Sub-Scale Total Scores According to Students' Demographic Characteristics

Women's extraversion levels were higher than men's, and men's neuroticism levels were higher than women's. No significant difference was found for all other subscales and the "10-item personality scale".

Individuals aged 24 and over have higher levels of extraversion, openness and agreeableness than younger individuals. No significant difference was found for the other subscales. At the same time, the 10-item personality scale mean scores of individuals aged 24 and over were higher than other individuals.

Table 1. Distribution of demographic characteristics of individuals participating in the study

Unstable	Frequency (n)	Percentage (%)
Gender		
Female	88	47.30
Male	98	52.70
Total	186	100.00
Age		
18–20.	60	32.30
21-23	86	46.20
24 +	40	21.50
Total	186	100.00
Department		
Physical Education and Sports Teaching	102	54.80
Sports Management	62	33.40
Coaching Training	22	11.80
Total	186	100.00
Location		
District	34	18.30
Province	14	7.50
Metropolitan	138	74.20
Total	186	100.00

Table 2. Summary statistics on the "ten-item personality scale" and its subscales

Scale and Subscales	Lower Limit	Upper Limit	Mean	Standard Deviation	Skewness	Kurtosis	Cronbach's Alpha
10-item personality scale	36	70	53.49	7.20	-0.178	0.055	0.848
Extraversion	3	14	10.51	2.81	-0.465	-0.636	0.816
Neuroticism	3	14	9.69	2.59	-0.183	-0.542	0.712
Openness to experiences	4	14	10.75	2.01	-0.748	0.840	0.465
Conscientiousness	5	14	11.81	1.87	-0.803	0.561	0.594
Agreeableness	7	14	10.70	1.87	-0.278	-0.547	0.617

Table 3. The change of ten-item personality scale and subscales by gender

Gender		Extraversion	Neuroticism	Openness	Conscientiousness	agreeableness	10-item personality scale
Female	Mean	11.22	9.18	10.95	11.95	10.75	54.06
	Sd	2.66	2.67	2.11	1.74	1.96	7.13
Male	Mean	9.87	10.16	10.57	11.69	10.67	52.97
	Sd	2.80	2.43	1.92	1.99	1.79	7.25
p- value		0.001*	0.010*	0.197	0.346	0.782	0.305

Table 4. The change of ten-item personality scale and subscales by age

Age		Extraversion	Neuroticism	Openness	Conscientiousness	Agreeableness	10-item personality scale
18-20	Mean	10.46	9.40	10.80	11.83	10.56	53.06
	Sd	2.46	2.75	1.98	1.89	1.85	6.61
21-23	Mean	9.95	9.53	10.37	11.86	10.48	52.20
	Sd	2.99	2.48	1.91	1.91	1.80	6.36
24+	Mean	11.80	10.50	11.50	11.70	11.40	56.90
	Sd	2.53	2.47	2.11	1.81	1.93	8.71
p- value		0.002*	0.083	0.013*	0.903	0.030*	0.002*

Table 5. The change of ten-item personality scale and subscales by department

Department		Extraversion	Neuroticism	Openness	Conscientiousness	Agreeableness	10-item personality scale
Physical Education and sports teaching	Mean	9.94	9.60	10.76	11.68	10.82	52.82
	Sd	2.99	2.46	2.10	1.85	2.11	7.96
Sports Management	Mean	11.06	10.06	10.90	11.93	10.70	54.67
	Sd	2.44	2.69	1.47	1.94	1.23	5.82
Coaching Training	Mean	11.63	9.09	10.27	12.09	10.18	53.27
	Sd	2.36	2.84	2.83	1.82	2.17	6.83
p- value		0.006*	0.278	0.454	0.548	0.348	0.277

The extraversion levels of the students studying in the Department of Physical Education and Sports Teaching were found to be lower than those studying in the Department of Sports Management and Coaching Training. No significant difference was found for all other subscales and the 10-item personality scale.

Personality levels and subscales of individuals do not reveal a statistically significant difference according to where they live.

When the skewness and kurtosis values of the Scale and Subscales are examined, it is seen that all of them are between -2 and +2. If the skewness and kurtosis values are between -2 and +2, the assumption of the normal distribution can be accepted for the scale score values (24). The Cronbach's Alpha value, which measures the reliability of the attitude scale about adequate and balanced nutrition, in which 186 individuals participated, was found as α=0.935. In addition, Cronbach's Alpha value for the knowledge subscale

was α=0.779, Cronbach's Alpha value for the anxiety subscale was α=0.874, Cronbach's Alpha value for the interest subscale was α=0.683.

Analysis of the "Attitude Scale About Adequate and Balanced Nutrition" and Sub-Scale Total Score According to Students' Demographic Characteristics

Attitudes, knowledge, anxiety, and interests of individuals about adequate and balanced nutrition do not show a statistically significant difference according to gender.

When the ages of the individuals were examined, it was concluded that individuals aged 24 and over had more knowledge, anxiety, and interests about adequate and balanced nutrition than younger individuals.

Attitudes, knowledge, anxiety, and interests of individuals about adequate and balanced nutrition do not show a statistically significant difference according to their departments.

Attitudes, knowledge, anxiety and interests of individuals about adequate and balanced nutrition do not show a statistically significant difference according to where they live.

Considering the relationship between the ten-item personality scale and its subscales and the attitude scale and subscales about adequate and balanced nutrition, important results stand out. As individuals'

Table 6. The change of ten-item personality scale and subscales by location

Location		Extraversion	Neuroticism	Openness	Conscientiousness	Agreeableness	10-item personality scale
District	Mean	9.58	9.29	10.17	11.70	10.47	51.23
	Sd	3.26	2.08	2.44	2.11	1.70	8.43
Province	Mean	11.28	8.71	11.00	10.85	11.57	53.42
	Sd	1.63	1.97	1.35	3.00	1.98	4.56
Metropolitan	Mean	10.66	9.89	10.86	11.94	10.68	54.05
	Sd	2.75	2.73	1.94	1.64	1.89	7.02
p- value		0.076	0.160	0.180	0.111	0.170	0.123

Table 7. Summary statistics on "attitude scale about adequate and balanced nutrition" and its subscales

Scale and Subscales	Lower Limit	Upper Limit	Mean	Sd	Skewness	Kurtosis	Cronbach's Alpha
Attitude about adequate and balanced nutrition	32	70	51.93	7.88	-0.157	-0.029	0.935
Knowledge	13	25	21.86	2.70	-1.077	1.021	0.779
Anxiety	8	25	17.76	4.07	-0.177	-0.595	0.874
Interest	4	20	12.31	3.58	0.013	-0.275	0.683

Table 8. The change of attitudes about adequate and balanced nutrition scale and its subscales by gender groups

Gender		Knowledge	Anxiety	Interest	Attitude towards adequate and balanced nutrition
Female	Mean	22.02	17.93	12.29	52,25
	Sd	2.57	4.29	3.54	7,73
Male	Mean	21.71	17.61	12.32	51,65
	Sd	2.81	3.87	3.64	8,05
p- value		0,438	0.594	0.953	0.608

Table 9. The Change of Attitudes about Adequate and Balanced Nutrition Scale and Its Subscales by Age Groups

Age		Knowledge	Anxiety	Interest	Attitude towards adequate and balanced nutrition
18-20	**Mean**	21.30	16.26	11.70	49.26
	Sd	3.33	4.15	3.91	8.69
21-23	**Mean**	21.86	17.93	11.90	51.69
	Sd	2.36	3.80	3.33	6.73
24+	**Mean**	22.70	19.65	14.10	56.45
	Sd	2.10	3.69	3.07	7.07
p-value		0.039*	0.000*	0.001*	0.000*

Table 10. The change of attitudes about adequate and balanced nutrition scale and its subscales by departments

Department		Knowledge	Anxiety	Interest	Attitude towards adequate and balanced nutrition
Physical Education and Sports Teaching	**Mean**	21.86	17.94	12.45	52.25
	Sd	2.82	4.08	3.56	8.50
Sports Management	**Mean**	21.61	17.67	11.70	51.00
	Sd	2.64	3.74	3.78	7.03
Coaching Training	**Mean**	22.54	17.18	13.36	53.09
	Sd	2.19	4.93	2.87	7.23
p- value		0.382	0.717	0.150	0.472

Table 11. The change of attitudes about adequate and balanced nutrition scale and its subscales by location

Location		Knowledge	Anxiety	Interest	Attitude towards adequate and balanced nutrition
District	**Mean**	21.76	16.88	12.00	50.64
	Sd	3.06	4.31	4.04	8.03
Province	**Mean**	21.71	17.85	10.57	50.14
	Sd	2.26	3.65	3.03	5.72
Metropolitan	**Mean**	21.89	17.97	12.56	52.43
	Sd	2.66	4.04	3.48	8.02
p- value		0.947	0.378	0.120	0.338

knowledge, anxiety and interest about adequate and balanced nutrition increase, their general personality scale scores also increase. In addition, as individuals' extraversion, neuroticism, conscientiousness and agreeableness levels increase, their attitudes about adequate and balanced nutrition also increase. There was no statistically significant relationship between openness subscale and attitude about adequate and balanced nutrition. Considering the relationships among the subscales, there is no statistically

significant relationship between individuals' level of openness and their knowledge, anxiety and interests about adequate and balanced nutrition. In addition, as individuals' extraversion, neuroticism, conscientiousness and agreeableness levels increase, their knowledge, anxiety and interests about adequate and balanced nutrition also increase. There is generally a positive relationship between the personality of individuals and their attitudes about adequate and balanced nutrition.

Table 12. The interpretation of the relationship between the ten-item personality scale and the attitudes about adequate and balanced nutrition scale with pearson correlation coefficient

	Attitude about adequate and balanced nutrition	Knowledge	Anxiety	Interest
10-item personality scale	0.524** (0.001)	0.425** (0.001)	0.454** (0.001)	0.319** (0.001)
Extraversion	0.430** (0.001)	0.263** (0.001)	0.341** (0.001)	0.361** (0.001)
Neuroticism	0.369** (0.001)	0.276** (0.001)	0.339** (0.001)	0.217** (0.003)
Openness	0.076 (0.301)	0.081 (0.273)	0.084 (0.252)	0.130 (0.077)
Conscientiousness	0.341** (0.001)	0.472** (0.001)	0.270** (0.001)	0.087 (0.237)
Agreeableness	0.323** (0.001)	0.425** (0.001)	0.454** (0.001)	0.319** (0.001)

** Correlation is significant at the 0.01 level.

Discussion and Conclusion

Within the holistic definition of health, nutrition is among the leading environmental factors affecting health. However, for individuals to reach their goal of being healthy, they should pay attention to the issue of "adequate and balanced" nutrition. It is not possible for a society without adequate and balanced nutrition to live in a healthy and workable strength, and to increase economic and social welfare. Adequate and balanced nutrition is the basic condition for the development of the whole society, as well as the basic condition for the vital activities of individuals. Therefore, in addition to its social aspect, nutrition is also related to the personality traits of individuals. Personality represents the whole of the behavioral patterns that distinguish the individual from other individuals and show a certain consistency, in other words, it represents all of the mental, emotional and physical reactions that direct the individual's life. For this reason, this study aimed to examine the relationship between personality traits and adequate and balanced nutrition attitudes of students studying in different departments in the Faculty of Sport Sciences at Ege University and actively doing sports in different sports branches.

According to the results obtained from the research

According to gender, the extraversion levels of women were higher than men, and the neuroticism levels of men were higher than women (p<0.05). No significant difference was found for all other subscales and the "10-item personality scale" (p>0.05). It was concluded that the students' being male, or female did not change their personality traits, only there were differences between men and women in the subscales. Women's extraversion levels were higher than men's, and men's neuroticism levels were higher than women. In the study by Wiggins (25), it was reported that women in general groups were more extroverted than men. In many personality studies conducted on athletes, it has been shown that extraversion and emotional balance factors are effective factors (26). Costa et al (27) concluded in their study on people from different cultures that personality traits differ according to gender. We can say that this is due to the difference in the traditions and customs of the students participating in the study as a result of living in different cities or villages. Tatlıoğlu (28) found in his study that university students did not differ in the sub-scales of personality traits in terms of gender. Lonchbaum et al. (29) found in their study with a

large sample group that male and female participants exercise regularly and those who do not have similar personality traits. In this study, we can say that the fact that the personality traits of the students in the faculty of sports sciences do not differ is due to the common feelings and thoughts as the reason for being in the same department and being an athlete. These studies in these references support the findings of this study.

According to age, individuals aged 24 years and older have higher levels of extraversion, openness, and agreeableness than those younger than themselves (p<0.05). As the class level of the individual's increases and the age increases, it is seen that they get lively, sociable, social, active, enthusiastic, relaxed, natural, optimistic, avoiding conflict, sensitive, compassionate, agreeable, calm, trusting people, collaborative, analytical thinking, sensitive, broad interests, innovative, differing creative features. As age changes, personality traits also change. No significant difference was found for other subscales (p>0.05). Regardless of the age group, we can say that all individuals have stable, planned, purposeful, determined, cautious, responsible, sensitive, emotional, anxious, nervous, non-resistance, and impulsive characteristics. We can say that age has no effect on personality in this subscale. At the same time, the 10-item personality scale mean scores of individuals aged 24 and over were higher than the other individuals (p<0.05). Considering the age range of the participants, we can say that there is a significant difference between different age groups because the characters and personality traits of the individuals are not settled. Since there is no study similar to the one we have done, no findings to support it have been reached.

The extraversion levels of the students studying in the Department of Physical Education and Sports Teaching were found to be lower than those studying in the Department of Sports Management and Coaching Education. (p<0.05). We can state that the students studying in the physical education and sports teaching department are less likely to be lively, sociable, social, active, enthusiastic, relaxed, natural, and optimistic than the individuals studying in the sports management and coaching education department. Kaplan et al. (30) found that students studying physical education

and sports teaching in the sub-scales of extraversion according to the department variable were more extroverted than the other two departments in their study of the personality types of recreationally active university students. This study does not overlap with our study. We can say that this is due to the fact that the teaching department is different. No significant difference was found for all other subscales and the 10-item personality scale (p>0.05). We can say that the absence of this difference between departments is due to the fact that the courses taken by the students are the same. We can say that the personality traits of all students studying at the faculty of sports sciences are similar. It is seen that the faculty of sports sciences is extremely influential on the personalities of the students. It guides the formation of the personality of the students. Similar findings with our study were not found.

There is no statistically significant difference between the personality levels and subscales of the individuals according to the place they live (p>0.05). The lack of a significant difference in our study was due to the fact that they took the same education at the same school. We can say that education has a significant effect on personality. Even though the students live in different cities from the city where they are educated, the place where they study together, that is, the school is in the same place, the same education is the reason why they have the same emotion and thought structure and their personality traits are not different. Since there is no study similar to the one we have done, studies to support it have not been reached.

Attitudes, knowledge, anxiety, and interests of individuals about adequate and balanced nutrition do not show a statistically significant difference according to gender. (p>0.05). According to Dalbudak et al. (31), nutrition and its sub-scales of visually impaired athletes do not vary according to their gender. It is similar to the findings of Dalbudak et al. (32) that according to gender there is no difference in the nutritional habits of the students in different departments in the vocational school at the university. Also, it is similar to the findings of Koldaş et al. (33) that there is no difference according to gender in the evaluation of nutritional knowledge levels. The studies carried out support the studies we have done. It is seen that each individual has similar attitudes about adequate

and balanced nutrition for life and longevity. For a person to continue his life in healthily and without being dependent on a person, a balanced and regular diet is required. It is seen that nutrition education in schools where women and men have taken is effective on individuals. Therefore, we can say that there is no difference between men and women since nutrition is effective on them.

When the ages of the individuals were examined, it was concluded that individuals aged 24 and over had more knowledge, anxiety, and interests about adequate and balanced nutrition than younger individuals (p<0.05). Yılmaz et al. (34) found a significant difference between the age and habits of nutrition and subscales of students studying in different departments at the university. Kılıç (35) found a significant difference between age and eating habits in the study of determining the nutritional knowledge levels and eating habits of women. It supports our work. As individual's age's change, their knowledge and thoughts about nutrition change. It is seen that individuals are aware that a healthy life is directly proportional to their attitudes about adequate and balanced nutrition. We can say that individuals know about adequate and balanced nutrition since nutrition is very important for all ages and since the nutrition education that students studying at the faculty of sports sciences have received in their schools has an impact on individuals.

Attitudes, knowledge, anxiety, and interests of individuals about adequate and balanced nutrition do not show a statistically significant difference according to the department they study. (p>0.05). The Faculty of Sports Sciences consists of the Department of Physical Education and Sports Teaching, Sports Management, and Coaching Training. The students studying in these departments take nutrition lessons. These students are actively engaged in sports. It is seen that individuals' attitudes, knowledge, anxiety, and interests about adequate and balanced nutrition are the same. Since each of the students in different departments in the faculty of sports sciences is interested in a sports branch, they have a programmatic diet. They pay a lot of attention to the diet. Nutrition is directly proportional to the performance of the athlete. It is seen that there is no significant difference between them due to their knowledge and experience about nutrition. According

to Yılmaz et al. (34), students in the faculty of sports sciences differed in their attitudes and behaviors towards nutritional habits compared to students in the faculty of health sciences. It is seen that the attitudes, knowledge, concerns, and interests of sports science students about adequate and balanced nutrition are higher than the students in the health sciences faculty. In Demir (36)'s nutritional behavior study of sportive and sedentary adolescents, the nutritional behaviors of the athletes were higher than the sedentary students. The nutritional level of athletes is higher than those who do not do sports. This study supports our study.

Attitudes, knowledge, anxiety and interests of individuals about adequate and balanced nutrition do not show a statistically significant difference according to where they live (p>0.05). These students are people who have taken healthy living and nutrition lessons in schools. Regardless of where they live, their attitudes, knowledge, concerns, and interests about adequate and balanced nutrition are the same as they have the same sports experience and education. Dalbudak et al. (32) stated in their study that there was a significant difference in nutrition and its sub-dimensions between those who took the healthy life and nutrition lesson and those who did not. In the study conducted by Yılmaz and Karaca (37), it was determined that there was a significant difference between the students who took nutrition lessons and those who did not, in favor of the students who took nutrition lessons. We can say that the healthy life and nutrition lesson taken in schools effects students. We can state that people who take nutrition lessons and have experience have the same thoughts about nutrition even though they live in different places.

Considering the relationship between the ten-item personality scale and its subscales and the attitude scale and subscales about adequate and balanced nutrition, important results stand out. As individuals' knowledge, anxiety, and interest in adequate and balanced nutrition increase, their general personality scale scores also increase. In addition, as individuals' extraversion, neuroticism, conscientiousness, and agreeableness levels increase, their attitudes towards adequate and balanced nutrition also increase (p<0.05). There was no statistically significant relationship between the openness subscale and attitude about adequate

and balanced nutrition. Considering the relationships among the subscales, there is no statistically significant relationship between individuals' level of openness and their knowledge, anxiety, and interest in adequate and balanced nutrition. In addition, as individuals' extraversion, neuroticism, conscientiousness, and agreeableness levels increase, their knowledge, anxiety, and interests about adequate and balanced nutrition also increase. There is generally a positive relationship between the personality of individuals and their attitudes about adequate and balanced nutrition. In this context, it can be thought that there is a positive relationship between personality and nutrition. Adequate and balanced nutrition has a positive effect on the personality of the individual. Adequate and balanced nutrition is directly proportional to the personality structure. If the personality of the individual is not formed, we can talk about it as an important risk factor for inadequate and unbalanced nutrition disorders. We can say that individuals with a well-established personality and self-awareness are conscious of adequate and balanced nutrition. Since there are no similar or close studies to the study we have done, no findings to support it has been reached.

As a result, it is observed that the education system in the Faculty of Sports Sciences effects the personality traits of the students and their attitudes towards adequate and balanced nutrition. It is seen that there is no difference between the personality traits of the students and their attitudes towards adequate and balanced nutrition due to the education taken by the students in the faculty of sports sciences. As a result of the lessons such as nutrition, anatomy, physiology, physical fitness, healthy life, sociology, psychology, etc. that students studying in the faculty of sports sciences, it has been concluded that there is no difference between the personality traits of the students and their attitudes towards adequate and balanced nutrition. It is seen that the education given in the faculty of sports sciences is effective on students. We can say that there is no difference between the personality traits of the students and their attitudes towards adequate and balanced nutrition if the health and life nutrition course is compulsory in universities and the course durations are in the desired time. As a result of the fact that the health and life nutrition course is compulsory and its

participation is ensured, we can say that students can take benefits both physically and psychologically. We can say that this study will shed light on future studies since it would be beneficial to repeat this study more comprehensively in different faculties of universities.

Conflict of Interests: Authors declare no conflict of interest

References

1. Pekşen-Akça R. Çocuk gelişimi ve eğitimi "Oyunlarla besleniyorum" Mungan İzmir: Kavram yayınları 2010.
2. Köksal O, Attila S. Toplum Beslenmesi, Güler, Ç, Akın, L. (Ed.).Halk Sağlığı Temel Bilgiler..Ankara: Hacettepe Üniversitesi Yayınları 2006; 736-739
3. Baysal A, Aksoy M, Bozkurt M. Giriş Genel Tanımlar. Diyet El Kitabı Ankara: Hatipoğlu Yayınevi 2008.
4. Çetin G, Sarper F. Tıp Fakültesi Birinci ve Son Sınıfa Devam Eden Öğrencilerin Beslenme Bilgi ve Alışkanlıkları Üzerine Bir Araştırma. 21. Yüzyılda Eğitim ve Toplum Eğitim Bilimleri ve Sosyal Araştırmalar Dergisi 2013; 2(6), 84-104.
5. Dölekoğlu CÖ, Yurdakul O. Adana ilinde hane halkının beslenme düzeyleri ve etkili faktörlerin logit analizi ile belirlenmesi. Akdeniz İ.İ.B.F. Dergisi 2004; 8, 62-86.
6. Can S, Can, Çokçalışkan H, Durukan E. Determınatıon Of Pre-Servıce Teachers'adequate And Balanced Eatıng Habıts (The Case Of Mugla). Electronic Turkish Studies 2017; 12(13), 117-134.
7. Sarıbaş ÇÇ, Başgül S, Cömert IT, Tutlu MG. 15-17 Yaş Elit ve Amatör Futbolcuların Yeme Tutumu, Benlik Saygısı ve Kişilik Özelliklerinin İncelenmesi. Türk Sosyal Bilimler Araştırmaları Dergisi 2019; 4(1), 34- 46.
8. Burger JM. Kisilik. (Çeviren: D. Erguvan Sarıoglu). İstanbul: Kaknüs Yayınları. 2006.
9. Güler D. Kişilik kavramı ve çocuk kişiliği, Kurgu 1989; 6(2), 277-286.
10. John OP, Hampson SE, Goldberg LR. The basic level in personality-trait hierarchies:studies of trait use and accessibility and social psychology. Journal Personality and Social Psychology 1991;60(3), 348-361.
11. Döğücü M, Başer D. Evli kadınların benlik saygısı, temel kişilik özellikleri ile maruz kaldıkları aile içi şiddet arasındaki ilişkinin incelenmesi. Sosyal Politika Çalışmaları Dergisi 2021; 21(50), 278-313.
12. Özer E. Üniversite öğrencilerinin psikolojik sağlamlık düzeylerinin duygusal zekâ ve beş faktör kişilik özellikleri açısından incelenmesi, Doktora Tezi, Eğitim Bilimleri Enstitüsü, Necmettin Erbakan Üniversitesi, Konya 2013.
13. Heller D, Judge T, Watson D. The confounding role of personality and trait affectivity in the relationship between job and life satisfaction. Journal of Organizational Behavior 2002; 23, 815-835.

14. McCrae RR, Costa PT. *Personality in adulthood: A five-factor theory perspective* (2nd ed.). Guilford Press. 2003. https://doi.org/10.4324/9780203428412

15. Çetin F. Kişilerarası ilişkilerde kendilik algısı, kontrol odağı ve kişilik yapısının çatışma çözme yaklaşımları üzerine etkileri: Uygulamalı bir araştırma. Kara Harp Okulu Savunma Bilimleri Enstitüsü, Ankara 2008.

16. Doğan T. Beş faktör kişilik özellikleri ve öznel iyi oluş. Doğuş Üniversitesi Dergisi 2013; 14(1), 56-64.

17. Develioğlu K, Tekin ÖA. Beş faktör kişilik özellikleri ve yabancılaşma arasındaki ilişki: beş yıldızlı otel çalışanları üzerine bir uygulama. Süleyman Demirel Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi 2013; 18(2), 15-30.

18. Somer O, Korkmaz M, Tatar A. Beş faktör kişilik envanterinin geliştirilmesi-I: Ölçek ve alt ölçeklerinin oluşturulması. Türk Psikoloji Dergisi 2002; 17 (49), 21-33.

19. Bacanlı H, İlhan T, Aslan S. Beş faktör kuramına dayalı bir kişilik ölçeğinin geliştirilmesi: Sıfatlara dayalı kişilik testi (SDKT). Türk Eğitim Bilimleri Dergisi 2009; 7(2), 261-279.

20. Costa PT, Mccrae RR. Domains and facets: Hierarchical personality assessment using the revised neo personality inventory. Journal of Personality Assessment 1995; 64(1), 21-50.

21. Gosling SD, Rentfrow PJ, Swann WB. A very brief measure of the big five personality domains. Journal of Research in Personality 2003; 37(6), 504-528.

22. Atak H. On-maddeli kişilik ölçeğinin Türk Kültürü'ne uyarlanması. Nöropsikiyatri Arşivi Dergisi 2013; 50(4), 312-319.

23. ahin-Okur Z. Yeterli ve dengeli beslenme hakkında tutum ölçeği geliştirilmesi ve lise öğrencilerinin yeterli ve dengeli beslenme hakkında tutumlarının farklı değişkenler açısından değerlendirilmesi, Yüksek Lisans Tezi, Eğitim Bilimleri Enstitüsü, Necmettin Erbakan Üniversitesi, Konya 2019.

24. George D, Mallery M. SPSS for windows step by step: A simple guide and reference, 17.0 update (10a ed.) Boston: Pearson 2010.

25. Wiggins JS. A psychological taxonomy of traitdescriptive terms: The interpersonal domain. Journal of Personality and Social Psychology 1979; 37(3), 395-412.

26. Egloff B, Gruhn AJ. Personality and endurance sports. Personality and Individual Differences, 1996; 21(2), 223-229.

27. Costa P, Terracciano A, McCrae RR. Gender differences in personality traits across cultures:robust and surprising findings. Journal of Personality and Social Psydwlog 2001; 81(2), 322-331.

28. Tatlılıoğlu K. Üniversite öğrencilerinin beş faktör kişilik kuramı'na göre kişilik özellikleri alt boyutlarının bazı değişkenlere göre incelenmesi, Journal of History School 2014; 7(17), 939-71.

29. Lonchbaum MR, Rhode RE, Stevenson SJ, Surles J, Stevens T, Wang CKJ. Does gender moderate the exercising personality? An examination of continuous and stage-based exercise. Psychology, Health and Medicine 2010; 15(1), 50–60.

30. Kaplan T, Aktaş S, Tükel Y, Atılgan D. Rekreasyonel olarak aktif üniversite öğrencilerinin kişilik tiplerinin incelenmesi, Spor ve Performans Araştırmaları Dergisi Journal of Sports and Performance Researches 2017; 8(2)135-144.

31. Dalbudak İ, Balyan B, Zekioglu A, Başoğlu UD, Manci E. The relationship between body perception and nutrition of B2 - B3 impaired athletes. Progress in Nutrition 2021; 23(1), 1-9.

32. Dalbudak İ, Yılmaz T, Yiğit M. The relationship between university students' quality of life and nutrition 2020; 22(1), 112-121.

33. Koldaş G, Saçaklı H, Sevim Y. Marmara Bölgesindeki Spor Yüksekokullarında Öğrenim Gören Beslenme Dersi Almış Öğrencilerin Beslenme Konusundaki Bilgi Düzeylerinin Değerlendirilmesi. Eurasian Research in Sport Science 2018; 3(2), 93-105.

34. Yılmaz T, Dalbudak İ, Yiğit M. Relationship between life satisfaction and nutrition of students at the faculty of sports and health sciences at university, Progress in Nutrition 2020; 22(1), 1-15.

35. Kılıç E. Tarımla uğraşan kadınların beslenme bilgi düzeylerinin ve beslenme alışkanlıklarının saptanması, Yüksek Lisans Tezi, Eğitim Bilimleri Enstitüsü, Gazi Üniversitesi, Ankara 2009.

36. Demir F. Spor Yapan ve Sedanter Adolesanların Beslenme Durumunun Karşılaştırılması, Yüksek Lisans Tezi, Sağlık Bilimleri Enstitüsü, İstanbul Aydın Üniversitesi, İstanbul 2019.

37. Yılmaz G, Karaca S. Spor yapan ve sedanter üniversite öğrencilerinin beslenme bilgi tutum ve yaşam kalitelerinin incelenmesi, Niğde Üniversitesi Beden Eğitimi ve Spor Bilimleri Dergisi 2019; 13(3), 258-266.

———

Correspondence:
Olcay Mulazimoglu
Faculty of Sports Sciences,
Mugla Sitki Kocman University / Mugla, Turkey.
Email: olcaymulazimoglu@mu.edu.tr