

Examination of Nutritional Knowledge and Attitudes of the Students of the Sports Sciences Faculty

Yusuf Burak Yamaner,

Bursa Uludağ University, Bursa-Turkye, Institute of Educational Sciences. E-mail: yamaner7@gmail.com, ORCID:0000-0002-2642-0869

Abdorreza Eghbal Moghanou,

Istanbul Esenyurt University, Istanbul, Turkey Member of Department Coaching Education, School of Physical Education and Sports.

E-mail: abdorrezaeghbalmoghanlou@esenyurt.edu.tr, ORCID:0000-0003-1238-0541

Abdullah Demirli,

Istanbul Esenyurt University, Istanbul, Turkey Member of Department Coaching Education, School of Physical Education and Sports.

E-mail: abduhahdemirli@esenyurt.edu.tr, ORCID:0000-0003-1727-4596

Abstract--- This study aimed to investigate the nutrition knowledge and attitudes of the students studying at the faculty of sports sciences. The study consists of a total of 161 voluntary participants, 90 men and 71 women. At the same time, the mean age, height and weight, of male and female participants was obtained. For analysis of the obtained data, Independent Sample T Test was applied in SPSS 22.0. Results: In our research; While there was no significant difference in the nutritional knowledge and attitudes of the participants according to the gender and nationality variables; As a result of the nutrition education they received, it was observed that their nutritional knowledge and attitudes changed positively ($p < 0.05$). As Conclusion, do not have nutritional knowledge can lead to inadequate and unbalanced nutrition. In this context, the lectures, conferences and the organization of panels will have a significant impact on the development of individuals.

Keywords--- Sports, Nutritional Knowledge, Student.

I. Introduction

Various symbols or images about the concept of nutrition are encountered everywhere every day. Although there is no proof of the accuracy of this information, every senseless individual tends to accept this information as it is. It is inevitable that the situation may have negative effects. On the other hand, regarding this problem, students studying in sports sciences are expected to have a high level of knowledge about both sports and nutrition. The main reason for this is that every individual studying in sports sciences is seen as a potential athlete. It is not very likely that a student who does not have any theoretical knowledge will be successful in sports activities. So much so that in the 21st century, it is known that nutrition differs according to gender, blood type and even financial level.

In the process from the past to the present, almost everyone in the society can comment on the concept of nutrition, but can what everyone knows be considered true? As long as the human being accepts the traditional teachings as they are, it does not seem possible unless he abandons his presuppositions.

Nutrition is one of the most important biological needs for individuals to continue their daily life practices. In this context, every individual in the society should have information about the definition and content of the concept of nutrition, especially the students studying in Sports Sciences in this field. It is important for both sedentary individuals and students of the faculty of sports sciences to have knowledge about nutrition in order for individuals to be more balanced in social life.

Nutrition; It is the use of macro and micro nutrients by the organism for vital activities by being absorbed by the body through the intestines as a result of some chemical processes so that metabolic and physiological activities can be carried out by the body (Baysal, 2015; Ermiş, et al., 2015; Erten, 2006; Fatih, 2007; Irmak, 2013; Karacadağ, 2013; Driveoğlu et al., 2004).

Students studying in Sports Science should develop healthy eating habits to maintain body weight and health while maximizing it during any workout. Athletes may not even have knowledge of basic nutritional concepts such as fruits and vegetables being good sources of carbohydrates in addition to grains (Vinci, 1998; Andrews et al., 2016). Optimal nutrition facilitates and improves physical activity, athletic performance, and recovery (American College, 2009). Sports Science students must understand basic sports nutrition concepts to maximize training effects while maintaining body weight and health. Acquiring, applying, and competing with this knowledge must be balanced with academic coursework, personal preferences, cultural and religious influences, and motivation for behavior change (Heaney et al., 2011).

Obtaining this information will allow these professionals to focus and potentially provide direction for areas that need improvement. Due to the demands placed on athletes in sports-specific and non-sport-specific training, it is important for athletes to receive training on how to achieve an optimal energy balance in order to perform at the highest level (American College of Sports Medicine, 2009).

In this context, in our research, it is aimed to study the nutrition knowledge and attitudes of the students studying at the faculty of sports sciences.

II. Material and Method

Participants

The research was carried out on students studying at the Faculty of Sport Sciences at Bartın University, and the scanning model was used in the research. After giving preliminary information about the study to the participants, a total of 161 students, 90 male and 71 female students, participated in the study on a voluntary basis.

Data Collection

In our research, a Personal Information Form was first created by the researcher in order to determine socio-demographic information. As a questionnaire form, it was prepared based on the questionnaire used in the research conducted by Laurie et al. in 2003. The "Likert Scale" scale was used to analyze the section of the test related to nutritional knowledge and attitude.

In this scale, those who strongly agree with the correct information and attitudes are given +2 points, those who agree with it +1, those who are not sure, -1 points for those who disagree, and -2 points for those who strongly disagree. In the questionnaire used in our research, there are 27 questions about nutritional knowledge and 11 propositions about attitude. If they answered all the suggestions correctly, the maximum nutritional knowledge score was determined as 54, and the attitude score was 22.

Analysis of Data

The results obtained from the research findings were analyzed with the SPSS 22.0 package program. As a result of the Kolmogorov-Smirnov test, it was determined that the data showed normal distribution. In addition to frequency and percentage tables, Independent Sample T analysis, one of the parametric tests, was applied to the obtained data.

III. Results

Table 1: Physical Fitness Parameters of the Research Group

Variables	N	Age (year) (Mean±SD)	Height (cm) (Mean±SD)	weight (kg) (Mean±SD)
Male	90	23,27±6,00	177,43±5,59	72,44±9,29
Female	71	21,60±4,10	163,66±13,11	57,88±9,04

When Table 1 is examined; that 90 of the participants were male and 71 of them were female, and the mean age of male participants was 23.27±6.00 years, their average height was 177.43±5.59 cm and their weight average was 72.44±9.29 kg; mean age of female participants was 21.60±4.10 years, average height was 163.66±13.11 cm, and average weight was 57.88±9.04 kg.

Table 2: Frequency Table for Demographic Characteristics of the Research Group

Variables		N	%
National athlete	Yes	45	28,0

	No	116	72,0
	Total	161	100,0
Have you taken a nutrition lesson?	Yes	88	54,7
	No	73	45,3
	Total	161	100,0
Sport history	1-3 Years	35	21,7
	4-6 Years	40	24,9
	7-10 Years	53	32,9
	11 Years or more	33	20,5
	Total	161	100,0

When the demographic characteristics of the research group are examined in Table 2; 28.0% of the participants were national athletes, 54.7% of the participants had taken nutrition lessons before, and finally, 21.7% of the participants were 1-3 years, 24.9% were 4-6 years, It is seen that 32.9 of them have been doing sports for 7-10 years and 20.5% of them have been doing sports for 11 years or more.

Table 3: Changes between Groups by Gender Variable

Gender	N	Nutritional knowledge	P	Nutritional attitude	P
		XSs		XSs	
Male	90	47,628,56	,348	18,413,67	,845*
Female	71	46,427,28		18,523,38	

*p<0,05

When Table 3 was examined, it was found that nutritional knowledge and attitude values did not show statistically significant results according to gender variable., it is understood that the mean score of male participants at the level of nutrition knowledge is higher than that of females; At the level of nutrition attitude, it can be said that female participants have a higher average score than male participants, even with a small difference.

Table 4: Changes between Groups by Nationality Variable

Are you a national athlete	N	Nutritional knowledge	P	Nutritional attitude	P
		XSs		XSs	
Yes	45	47,136,58	,965	18,713,65	,576*
No	116	47,078,54		18,363,50	

*p<0,05

When Table 4 was examined, it was understood that nutritional knowledge and attitude values according to the nationality variable were not statistically significant (p>0.05). On the other hand, when the research findings are examined in detail, it can be understood that the average scores of national athletes are higher than those of non-national athletes.

Table 5: Changes Between Groups According to the Variable of Taking Nutrition Courses

Have you taken nutrition lessons?	N	Nutritional knowledge	P	Nutritional attitude	P
		XSs		XSs	
Yes	88	49,327,50	,001*	19,192,81	,016*
No	73	45,237,99		17,853,94	

*p<0,05

When Table 5 is examined, it was observed that the nutritional knowledge and attitude values of the participants who took nutrition lessons were higher than those who did not take nutrition lessons, and this difference was found to be statistically significant ($p < 0.05$). In this context; It is not incomplete or wrong to say that the behaviors of individuals who take nutrition lessons towards their nutritional knowledge and attitudes can change in a positive way.

IV. Discussion and Conclusion

When we look at the findings of the study examining the nutrition knowledge and attitudes of the students of the Faculty of Sport Sciences, there was no significance according to the variables of gender and nationality of the participants; Considering the status of taking nutrition lessons, it was determined that those who received education for this lesson had a higher average of nutrition knowledge and attitude compared to those who did not take nutrition lessons.

In the study conducted by Bozkurt (2001) it was found that the nutritional knowledge and attitudes of the students studying at the faculties of sports sciences were higher than the average scores of the students of other faculties, and this result was found to be statistically significant. When we look at our research results, it has been determined that this study is in parallel with our research, since it was observed that the students who took nutrition lessons had a higher average than the students who did not take nutrition lessons.

On the other hand, in the study conducted by Kavas (1985), it was determined that students who received nutrition education had a higher average score than those who did not. It is understood that; This study is similar to our research. At the same time, looking at the literature and the current study; It can also be said that a conclusion can be drawn that individuals who have received nutrition education make more conscious consumption.

When looking at the research done by Karaca (2019); While the percentage of students who took nutrition lessons was 59.5%, the percentage of students who did not take nutrition lessons was 40.5%. According to the results of the research, it was determined that the average scores of the students who took nutrition courses were high. It is seen that the result of this research supports our study result. Tercan Kaas (2016), on the other hand, found that the students who attended the elective physical education classes at Akdeniz University achieved high scores in the dimensions of "Physical Activity" and "Nutrition" of healthy lifestyle behaviors.

In the literature, it has been stated that the level of education is effective in the realization of health behaviors (Walker et al., 1988; Aytakin, 1999; Akyol & İmamoğlu, 2019; Küçük Yetgin, 2017). In another study conducted with university students, it was observed that the students of the Nutrition and Dietetics Department, unlike other students, had less orthorexic tendencies and had healthier eating behaviors in the last year compared to the first year (Korinth et al., 2010; Akdevelioğlu, & Yörüsün, 2019). Based on the results of this study, if we were to comment on our own research result, sports, nutrition, etc. for a healthy life. It would not be wrong to say that the students studying in the departments of education have high awareness in terms of knowledge and attitude, since there are courses on nutrition education in their education curriculum.

V. Conclusion

The discourse of "Knowledge is power" in the *Meditationes Sacre* of the French Bacon years ago is an answer to many problems experienced today (Bacon, 1957; Fugate-Whitlock; 2019). In the context of Bacon's discourse, every individual studying in sports sciences should acquire theoretical knowledge about the concept of nutrition. In this context, the individual should make both the knowledge about sports and the knowledge about nutrition visible in the practical life field, so that he can exist with his knowledge in the social field.

Within the framework of Bacon's comments on knowledge, it is thought that having the information about the concept of nutrition of individuals studying at the faculties of sports sciences and sharing this information with others is a cornerstone on the way to both dignity, self-confidence and a more effective life. In this sense, having knowledge will affect both the individual's intellectual activities not to be limited and his decision-making capacity.

As a result; As it can be understood from our research, the positive effects of having taken a nutrition course on the nutritional knowledge and attitudes of individuals are not to be underestimated. In this context; We think that positive contributions can be made to the nutritional attitudes and knowledge levels of both students and their parents by giving trainings, panels and conferences both in universities and in primary and secondary schools in order to maximize the nutritional knowledge and attitude level of individuals.

References

- [1] Akdeveliöglu, Y. & Yörüsün, T.Ö. (2019). Üniversite Öğrencilerinin Yeme Tutum Ve Davranışlarına İlişkin Bazı Faktörlerin İncelenmesi. *Gazi Sağlık Bilimleri Dergisi*, 4(1), 19-28.
- [2] Akyol, P. & İmamoğlu, O. (2019). Üniversite Öğrencilerinde Cinsiyete Göre Beslenme Alışkanlıkları. *Spormetre Beden Eğitimi Ve Spor Bilimleri Dergisi*, 17(3), 67-77.
- [3] Andrews A, Wojcik Jr, Boyd Jm, Bowers Cj. (2016). Sports Nutrition Knowledge Among Mid-Major Division I University Student-Athletes. *J Nutr Metab.*, 2016:3172460. Doi: 10.1155/2016/3172460.
- [4] American College Of Sports Medicine, (2009). American Dietetic Association, And Dietitians of Canada, "Nutrition and Athletic Performance: Joint Position Statement," *Medicine & Science in Sports & Exercise*, Vol. 41, No. 3, Pp. 709–731.
- [5] Aytekin, F (1999). Üniversite Öğrencilerine Verilecek Beslenme Eğitiminin Beslenme Davranışlarına Olan Etkisinin İncelenmesi. Doktora Tezi, Sosyal Bilimler Enstitüsü, Gazi Üniversitesi, Ankara.
- [6] Baysal A. (2015). Beslenme. Hatipoğlu Yayınevi, Ankara.
- [7] Bozkurt, M (2001). Çeşitli meyve ağaçlarında beslenme durumlarının belirlenmesi. Yüzüncü Yıl Üniversitesi Tarım Bilimleri Dergisi, 11(1), 39-45.
- [8] D.M. Vinci, (1998). Effective Nutrition Support Programs For College Athletes, *International Journal Of Sport Nutrition*, Vol. 8, No. 3, Pp. 308–320.
- [9] Ermiş, E., Doğan, E., Erilli, N. & Satıcı, A. (2015). Üniversite Öğrencilerinin Beslenme Alışkanlıklarının İncelenmesi: Ondokuz Mayıs Üniversitesi Örneği. *Spor Ve Performans Araştırmaları Dergisi*, 6(1), 30-40.
- [10] Erten M. Adıyaman İlinde Eğitim Gören Üniversite Öğrencilerinin Beslenme Bilgilerinin Ve Alışkanlıklarının Araştırılması. Gazi Üniversitesi, Aile Ekonomisi Ve Beslenme Anabilim Dalı, Yayınlanmamış Yüksek Lisans Tezi, Ankara, 2006.
- [11] Fatih, O. (2007). Farklı Sosyo-Ekonomik Düzeydeki Ailelerin Beslenme Bilgi Düzeyleriyle Sebze-Meyve Tüketim Alışkanlıklarının İncelenmesi. Gazi Üniversitesi Eğitim Bilimleri Enstitüsü. Yüksek Lisans Tezi: Ankara.
- [12] Fugate-Whitlock E. Knowledge Is Power. *Health Care Women Int.*, 2019 Nov;40(11):1133-1134. Doi: 10.1080/07399332.2019.1686293. Pmid: 31702482.
- [13] Irmak, H. (2013). Türkiye Sağlıklı Beslenme ve Hareketli Hayat Programı. T.C.Sağlık Bakanlığı Sağlık Eğitimi Genel Müdürlüğü: Ankara.
- [14] Karaca S. (2019). Spor Yapan ve Sedanter Üniversite Öğrencilerinin Beslenme Bilgi Tutum ve Yaşam Kalitelerinin incelenmesi. Niğde Ömer Halis Demir Üniversitesi, Sosyal Bilimler Enstitüsü, Beden Eğitimi ve Spor Anabilim Dalı, Yüksek Lisans Tezi, Niğde.
- [15] Karacadağ, Ö. (2013). 12-18 Yaş Arası Çocukların Beslenme Durumlarının, Ailelerin Beslenme Konusundaki Bilgi Düzeylerinin Belirlenmesi ve Hematolojik Biyokimyasal Değerler ile İlişkisi. Celal Bayar Üniversitesi. Tıp Fakültesi. Tıpta Uzmanlık Tezi: Manisa.
- [16] Kavas, A., Ve Kavas, A. (1985). Üniversite Öğrencilerinin Beslenme Bilgi Düzeyi Beslenmeye Karşı Tutumları ve Beslenme Durumları Üzerine Bir Araştırma. *Beslenme ve Diyet dergisi*, 14, 63-73.
- [17] Korinth A, Schiess S, Westenhofer J. Eating Behaviour And Eating Disorders İn Students of Nutrition Sciences. *Public Health Nutr* 2010;13:32-37
- [18] Küçük Yetgin, M. & Agopyan, A. (2017). Spor Bilimleri Fakültesi Öğrencilerinin Sağlıklı Yaşam Biçimi Davranışları. *Spormetre Beden Eğitimi Ve Spor Bilimleri Dergisi*, 15 (3), 177-184.
- [19] S.Heaney, H.O'connor, S. Michael, J. Gifford, And G. Naughton, (2011). Nutrition Knowledge İn Athletes: A Systematic Review, *International Journal Of Sport Nutrition And Exercise Metabolism*, Vol. 21, No. 3, Pp. 248–261.
- [20] Sürücüoğlu, M.S., Ve Özçelik, Ö. (2003). Antropometrik Yöntemlerle Beslenme Durumunun Değerlendirilmesi. 9. Ulusal Ergonomi Kongresi, 16-18
- [21] Tercan Kaas E (2016): Üniversite Öğrencilerinde Rekreasyon Aktivitelerine Katılım, Sağlıklı Yaşam Biçimi Davranışları Ve Yaşam Tatminin İncelenmesi (Akdeniz Üniversitesi Örneği). 14. Uluslararası Spor Bilimleri Kongresi, Özet Kitapçığı, S; 203, 1-4 Kasım 2016, Antalya.
- [22] Walker N.S, Volkan K, Sechrist Rk, Pender Jn. (1988). Health Promoting Life Styles Of Older Adults: Comparisons With Young And Middle – Aged Adults, Correlates And Patterns. *Adv Nurs Sci*, 11(1), 76-90.