Hüdaverdi MAMAK[1]
Kadir PEPE[2]
Hamdi PEPE[3]

INVESTIGATION OF NUTRITIONAL HABITS AND SUPPORT PRODUCT USE CONDITIONS OF INDIVIDUALS WHO PLAY ACTIVE SPORT

Abstract

Study Objectives: This study was conducted to examine the nutritional habits and supportive use of individuals who are actively involved in sports. *Methods:* The research was carried out in the sample of 170 active sports students at Niğde Ömer Halisdemir University. As part of the research, the data collection tool named "Nutrition Habits and Supplementary Product Use Survey" developed by Yücel (2017) was used. 95 male and 75 female athletes participated in the study. 51 of the athletes participating in the research perform team 119 of individual sports. *Results:* According to the research findings, it was concluded that athletes pay attention to their nutrition and use their support products consciously.

Keywords: Active Sports, Supportive Product, Nutritional Habits

[1] Doç. Dr., Niğde Ömer Halisdemir Üniversitesi Spor Bilimleri Fakültesi
hmamak@ohu.edu.tr

[2] Prof. Dr., Burdur Mehmet Akif Ersoy Üniversitesi Spor Bilimleri Fakültesi
kpepe@mehmetakif.edu.tr

[3] Prof. Dr., Selçuk Üniversitesi Spor Bilimleri Fakültesi
hpepe@selcuk.edu.tr

Makale Geliş Tarihi: 16.11.2020 Makale Kabul Tarihi: 20.11.2020

Makale Türü: Araştırma Makalesi

1. INTRODUCTION

Nutrition; In order to perform metabolic and physiological activities, macro and micronutrients are taken orally by the organism to undergo certain chemical processes, are absorbed through the intestines and used for vital activities through circulation (Baysal, 2015). Sports nutrition is based on the age, gender, sports branch, daily physical activity level and climatic conditions of the athlete, making arrangements for training, competition and transition periods and taking the nutrients in a sufficient and balanced way (Güneş, 2005). Adequate and balanced nutrition is one of the essential elements for good sport performance. It is accepted that adequate and balanced nutrition does not guarantee the success of an athlete, but inadequate and unbalanced nutrition causes some health problems and poor performance. The performance of a well-fed athlete is high, the effectiveness of the training is maximum. It has a high level of concentration and attention, disease and injury rates are low, recovery time is short when any health problems occur, body weight and body fat are within or near the recommended limits. In fact, the most important goal in sports nutrition is to protect the general health of the athlete and to increase his performance (Ongan and Ersoy, 2012). Athletes need to consume sufficient energy during high-intensity and / or long-term training to maintain body weight and health and maximize the effects of training. Low energy intakes can cause loss of muscle mass, loss of bone density brings increased risk of fatigue and injury, while a long recovery period can be experienced in case of disease risk. The protein consumed after exercise will provide the body with amino acids for the building and repair of muscle tissue. In recent years, athletes, coaches and scientists are also pleased to be aware of the importance of both exercise and nutrition to facilitate the response of the training to skeletal muscle (Demir and Filiz, 2004).

It is possible for athletes to increase their performance as a result of adequate and balanced nutrition according to age, gender and type of sports they do, together with appropriate training. For this reason, athletes and coaches should have sufficient knowledge on these issues (Sürücüoğlu, Özçelik and Çakıroğlu, 1996). As many sports branches require weight control, the importance of nutrition is increasing to control the energy systems used. However, when

the literature is analyzed, it is seen that especially the students of sports academies have low nutritional knowledge levels and at the same time they are not fed well (Birer and Ersoy, 1998; Sarıoğlu et all, 2012; Yarar et all, 2011; Yurttagül and Sağlam, 1998). Support products are used when adequate and balanced nutrition cannot be achieved through food or to further improve performance. Multi-vitamin tablet, antioxidant, herbal product, diet product, mineral and sports products are used for reinforcement. When used unconsciously, it causes great harm to the body (Ünsal, Özdemir and Ersoy, 2010). While this will prevent athletes from becoming successful athletes, it will also affect the success parameters of future athletes. From this point of view, it is important to learn the nutritional knowledge levels of the students who are actively doing sports at the same time. As a result of the obtained results, it is aimed to eliminate learning deficiencies.

2. MATERIALS AND METHODS

This research was carried out to determine the level of supportive product use of individuals engaged in active sports.

2.1. Universe and Sample

The universe of the research consists of athletes who are active in Niğde Ömer Halisdemir University, and the sample group consists of 165 athletes random selected by these athletes on a voluntary basis. The questionnaires were filled in after one-to-one interviews with the participants after giving information about the subject. In this way, a total of 165 athletes, 75 women and 95 men, participated in the study. 51 of them are teams and 119 of them are individual sports. The personal characteristics of the students in the sample are given in Table 1.

Table 1: Descriptive characteristics of the sample group

		f	%
Sex	Male	95	55,8
	Female	75	44,2
	Total	170	100,0
Age	21-25	112	65,9
	26-30	58	34,1
	Total	170	100,0

Branch of interest	Basketball	10	5,9
	Football	23	13,6
	Volleyball	18	10,5
	Fitness	119	70
	Total	170	100,0
Active sports year	1-5 year	87	51,3
	6-10 year	53	31,1
	11-15 year	30	17,6
	Total	170	100,0

2.2. Data Collection Tools

The data in the study were obtained from written sources and survey method. In the research, a questionnaire developed by Yücel (2017) was used. The reliability rate of the questionnaire used in the research is 73.70%; the validity rate is 71.05%. In the factor analysis, it was determined that the questions were collected in 4 dimensions. The survey consists of 3 sections and 33 consists of questions.

2.3. Analysis of Data

In the analysis of the survey data, meaningful and descriptive statistical methods were used. SPSS 24.0 package program was used for this. The tests used in the research; frequency analysis and correlation analysis.

3. RESULTS

Table 2: Nutritional habits of athletes

		f	%
Number of daily meals	Main meal	137	80,5
	Both meals	33	19,5
	Total	170	100,0
Will you skip the meal?	Yes	58	34,1
	No	112	65,9
	Total	170	100,0
Meal skipping reason	Lack of time	4	6,9
	Anorexia	3	5,3
	Do not be late	7	12,0
	Slimming desire	23	39,7
	Lack of habit	9	15,5
	Economic reasons	1	1,7
	Other	11	18,9
	Total	58	100,0

Can you consume meal main and snacks regularly?	Yes	74	27,6
	No	96	72,4
	Total	170	100,0
How do you calculate the calories you need to take daily?	With coach	80	47,0
	With the circle of friends	20	11,8
	According to written and visual media	19	11,2
	With the club doctor	5	2,9
	According to the book and the like	13	7,7
	With a dietitian	28	16,5
	Other	5	2,9
	Total	170	100,0
Eating fast / slow meals	I eat fast	103	60,5
	I eat slowly	67	39,5
	Total	170	100,0
Nutritional attention	I pay attention	123	72,3
	I don't pay attention	47	27,7
	Total	170	100,0
Is there a relationship between eating habits and doing sports?	No relationship	46	27,0
	There is a very close relationship	107	63,0
	No idea	17	10,0
	Total	170	100
How long before the training or competition do you eat?	1-2 hours	59	34,7
	3-4 hours	88	51,8
	I don't pay attention	23	13,5
	Total	170	100,0
What kind of food do you consume before training or competition?	Carbohydrate rich	47	27,6
	Protein rich	83	48,8
	Rich in vitamins	17	10,0
	Rich in oil	7	4,1
	I don't pay attention	16	9,5
	Total	170	100,0
Do you pay attention to fluid intake before and after training or competition?	I pay attention	103	60,5
	I don't pay attention	67	39,5
	Total	170	100,0
How much fluid do you take before training or competition?	0-500 ml	67	39,4
	500-100 ml	40	23,5
	1000 ml and over	63	37,1
	Total	170	100,0
How Much Fluid Do You Get After Training or Competition?	0-500 ml	44	25,9
	500-100 ml	34	20,0
	1000 ml and over	92	54,1
	Total	170	100

In order to determine the nutritional habits of the athletes participating in the research, frequency analysis was conducted in line with the responses

received. According to the analysis results given in Table 2, 80.5% of the athletes stated that they prefer only main meals, while 19.5% stated that they preferred both main meals and snacks. 34.1% stated that while the meal was skipped, 65.9% stated that they did not. Again, according to Table 2, athletes stated that they skipped meals in order to lose weight. Lack of time, lack of appetite, lack of habit, being late and economic reasons are other reasons for skipping meals. 72% of the athletes participating in the research stated that they do not consume main and snacks regularly, 47% of them stated that the calorie amount to be taken daily is determined by the trainer. While 60.5% of the athletes eat fast, 72.3% pay attention to their nutrition. In addition, 63% of athletes think that there is a relationship between eating habits and doing sports. It was concluded that 51.8% of the athletes participating in the research eat their meals 3-4 hours before training or competition and 48.8% eat protein-weighted. 60.5% of the athletes pay attention to fluid intake before and after training or competition. While athletes generally consume less fluid before training, they consume more fluid after training.

Table 3: Nutritional support product use

		f	%
Do you regularly use supportive products (vitamin, mineral, amino acid tablets, sports drink, etc.)?	Yes	102	60,0
	No	68	40,0
	Total	170	100,0
If you use it, for what purpose do you use the support product?	Body building	58	56,8
	Performance enhancement	36	35,3
	Other	8	7,9
	Total	102	100,0
How long have you been using these products?	0-6 month	23	22,5
	6 month - 1 year	27	26,5
	1 year - 2 years	22	21,5
	2 years and over	30	29,5
	Total	102	100,0
When do you use these products?	Passive period	29	28,4
	Training period	56	54,9
	Competition period	17	16,7
	Total	102	100,0
Have you seen the benefits of these products?	Yes	87	85,3
	No	7	6,8
	I do not know	8	7,9
	Total	102	100,0
Have you seen the damage of these products?	Yes	0	0,0
	No	90	88,2
	I do not know	12	11,8
	Total	102	100,0
How much lira do you spend on these products per year?	0-500 TRY	47	46,1
	5001-100 TRY	24	23,5
	1001 TRY and over	31	30,4
	Total	102	100,0
Where do you buy these products?	Shop	65	63,8
	Internet	25	24,5
	Person	8	7,8
	Other	4	3,9
	Total	102	100,0
Who was recommended by the nutritional supplement?	Coach	34	33,3
	conditioner	27	26,5
	At my own will	41	40,2
	Total	102	100,0

In Table 3, frequency analysis values are given to determine the level of support product use of athletes. According to the frequency values reached, 60% of the athletes use support products. 58% of athletes using supportive products stated that they use it to develop muscles and 36% use it to improve performance. 54.9% of the athletes have been using support products during the training period and 29.5% for more than 2 years. While 85.3% of the athletes participating in the research stated that they benefited from the support products, none of them stated that they were not harmed. While athletes usually purchase products from the store (63.8%), they predominantly (46.1%) spend between 0-500 TRY and 40.2% start with their own will.

Table 4: Correlation analysis for examining the nutritional habits and support product use levels of athletes

Variables	N	r	P
Number of main meals per day Number of snacks per day	170	0,335*	0,013
Time to eat before training or competition Time to eat after training or competition	170	0,452*	0,022
Types of food before training or competition Types of food after training or competition	170	0,441*	0,000
The amount of fluid before training or competition The amount of fluid after training or competition	170	0,391*	0,003
Attention to nutrition Regular support product use	170	0,564*	0,010

*<0,01

According to the findings obtained in Table 4, there is a positive relationship between the main and snack meals of the athletes, the nutritional habits before and after the training or competition and the nutritional levels of the athletes who use supplements.

4. CONCLUSION AND DISCUSSION

In this study, which was carried out to determine the nutritional habits and supplementary product use levels of individuals who do active sports, the main and intermediate meals consumption, nutritional habits before and after training or competition and the nutritional levels of athletes using supplementary products were examined. Correlation analysis was conducted to determine the relationship and the direction of the relationship between these variables. As a result of the analysis, a positive meaningful relationship was found. In the study conducted by Memiş (2004), it was found that the majority of university students (44.0%) fed three meals a day. In a study conducted by Vançelik et al. (2007) on the nutritional

knowledge and habits of university students, 60.1% of students fed 3-4 meals a day, 35.9% of them fed 2 or fewer meals, 87.4% of students skipped meals, and those who skipped meals It was found that 46.3% missed meals because they forgot or could not find an opportunity. In the study conducted by Arslan et al. (1994) in higher education youth, it was determined that the most skipped meal was breakfast with 31.5%. Research results are in line with these study findings. As can be seen, most students are fed 2-3 meals a day. However, the high number of meals gains more importance, especially due to the excessive energy expenditure of active sports students, especially breakfast and the number of meals should be increased. It has been determined that 31.8% of the athletes participating in the research of Bilgiç et al. (2012) skipped meals during the day, 36.6% of those skipping meals skipped the morning meal and 46.3% skipped the lunch meal. It was concluded that 24.8% of the athletes received ergogenic aid in order to increase their sports performance. Many studies draw attention to the importance of breakfast on school performance and academic success.

In their study on 243 university students, Şanlıer and Arıkan (2000) concluded that 3.7% of students prefer fatty foods after training and competition, 17.7% prefer protein foods, and 54.7% prefer carbohydrate foods. The literature findings obtained support our study. Özyılmaz (2013) examined 46% of the participants who took nutritional ergogenic in a bodybuilding sport and did not use nutrient ergogenic, and the chicken meat 4-5 times a week, 86.7% of the egg 6-7 times a week, milk and 86.7% of yogurt consumed once a week, and the participants who did not use food ergogenic, 53.3% of the egg 2-3 times a week, 66.7% of chicken meat 2-3 times a week, milk and yogurt 53%, It was found that 3 of them consumed 2-3 times a week. According to Çimen's (2012) study, 26.6% of athletes who are interested in table tennis, 24.5% of a meal during the day, two snacks, 8.5% of three meals, 2.1% of they stated that they consumed four snacks. It is thought that the reason for this difference is due to the formation of participant groups from different branches. In the study of Kim et al. (2011), they found that the main reasons for consuming food ergogenic are to accelerate the recovery process with 66% and secondly to increase muscle performance. It is thought that this difference, which arises between whether to use food ergogenic and whether to use food ergogenic, is caused by the difference of the sports nutrition needs and performance expectations of the participant groups. In the study of Cavadini et al. (2000), it was stated that 60-80% of

them consumed the morning snacks and 80-90% of the afternoon snacks in the adolescent period. Found that the frequency of consumption of cereals, fruit, juices and salads was higher, so that individuals doing physical activity in the adolescent period had higher micronutrient consumption than non-sports individuals. It is believed that the difference in the study of findings of this study in terms of snack consumption results from the formation of different feeding habits in different age groups.

As a result, we can say that individuals who do sports are paying attention to meal consumption, nutritional habits, and conscious use of supplements.

KAYNAKÇA

Aslan, P., Karaağaoğlu, N., Duyar, İ. & Güleç, E. (1994). Yüksek öğrenim gençlerinin beslenme alışkanlıklarının puanlandırma yöntemi ile değerlendirilmesi. *Beslenme ve Diyet Dergisi*, *22*(2), 195-208.

Baysal, A. (2015). Beslenme. Ankara: Hatipoğlu Yayınevi.

Bilgiç, P., Hamamcılar, O. & Bilgiç, C. (2011). Sporcuların beslenme bilgi ve uygulamaları. Beslenme ve Diyet Dergisi, 39(1-2), 37-45.

Birer, S. & Ersoy, G. (1998). Metropolitan bir kentte spor yapan üniversiteli kız öğrencilerin spor ve beslenme konusundaki bilgi tutum ve davranışları. Spor Hekimliği Dergisi, 23(2), 39-45.

Cavadini, C., Decarli, B., Grin, J., Narring, F. & Michaud, P. A. (2000). Food habits and sport activity during adolescence: differences between athletic and non-athletic teenagers in Switzerland. European Journal of Clinical Nutrition, 54(1), S16-S20.

Çimen, O. (2012). Elit masa tenisçilerin ve antrenörlerinin beslenme bilgisi ve alışkanlıklarının belirlenmesi. (Unpublished Doctoral Thesis), Gazi Üniversitesi Sağlık Bilimleri Enstitüsü.

Demir, M. & Filiz, K. (2004). Spor egzersizlerinin insan organizması üzerindeki etkileri. Gazi Üniversitesi Kırşehir Eğitim Fakültesi Dergisi, 5, 109-114.

Güneş, Z. (2005). Spor ve beslenme. (4. Baskı). Ankara: Nobel Yayın Dağıtım.

Kim, J., Kang, S. K., Jung, H. S., Chun, Y. S., Trilk, J. & Jung, S. H. (2011). Dietary supplementation patterns of Korean olympic athletes participating in the Beijing 2008 Summer Olympic Games. International Journal of Sport Nutrition and Exercise Metabolism, 21(2), 166-174.

Memiş, E. (2004). Üniversite öğrencilerinde şişmanlık (obezite) durumu ve diyet ürünleri kullanmaları üzerinde bir araştırma. (Unpublished Master's thesis), Gazi Üniversitesi Eğitim Bilimleri Enstitüsü, Ankara.

Ongan, D. & Ersoy, G. (2012). Vejetaryen sporcular: Özel gereksinimleri. Uluslararası İnsan Bilimleri Dergisi, 9(1), 261-270.

Özyılmaz, C. (2013). Vücut geliştirme ve bilek güreşi federasyonu milli sporcularının, ergojenik öğe kullanımının kan parametrelerine etkisinin saptanması. (Unpublished Master's thesis), Haliç Üniversitesi Sağlık Bilimleri Enstitüsü.

Sarıoğlu, Ö., İmamoğlu, O., Atan, T., Türkmen, M. & Akyol, P. (2012). Beden eğitimi bölümünde okuyan farklı branşlardaki öğrencilerin

beslenme alışkanlıklarının incelenmesi. Selçuk Üniversitesi Beden Eğitimi ve Spor Bilim Dergisi, 14(1), 88-94.

Sürücüoğlu, M. S., Özçelik, A. Ö. & Çakıroğlu, P. (1996). Yüzücülerin beslenme alışkanlıkları ve bilgi düzeyleri. Performans-Ege Üniversitesi Beden Eğitimi ve Spor Yüksek Okulu Dergisi, 2(1): 11-14.

Şanlıer, N. & Arıkan, B. (2000). Ankara'da çeşitli üniversitelerde beden eğitimi ve spor yüksekokullarına devam eden son sınıf öğrencilerin beslenme ve ek ergojenik yardımcıları kullanma durumlarının saptanması. 1. Gazi Üniversitesi Beden Eğitimi ve Spor Bilimleri Kongresi, 26-27.

Ünsal, G. N., Özdemir, G. & Ersoy, G. (2010). Tüketicilerin beslenme destek ürünü kullanım bilincinin değerlendirilmesi. Fırat Üniversitesi Sağlık Bilimleri Tıp Dergisi, 24(2), 81-88.

Vançelik, S., Önal, S. G., Güraksın, A. & Beyhun, E. (2007). Üniversite öğrencilerinin beslenme bilgi ve alışkanlıkları ile ilişkili faktörler. TSK Koruyucu Hekimlik Bülteni, 6(4), 242-248.

Yarar, H., Gökdemir, K., Eroğlu, H. & Özdemir, G. (2011). Elit seviyedeki sporcuların beslenme bilgi ve alışkanlıklarının değerlendirilmesi. Selçuk Üniversitesi Beden Eğitimi ve Spor Bilim Dergisi, 13(3), 368-371.

Yurttagül, M. & Sağlam, F. (1988). Yüksek öğrenime devam eden kız öğrencilerin fiziksel aktivitelerinin beslenme ve sağlık durumlarının saptanması. Diabet Yıllığı, 5.

Yücel, A. G. (2017). Hokey süper liginde oynayan sporcuların beslenme alışkanlıkları ve beslenme destek ürünü kullanma durumlarının incelenmesi (Unpublished Master's thesis), İstanbul Gelişim Üniversitesi Sağlık Bilimleri Enstitüsü.