

# Examination of Nutritional Knowledge Levels and Nutritional Attitudes of Badminton Athletes

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## ABSTRACT

**Aim:** This study aimed to examine the nutritional knowledge levels and nutritional attitudes of badminton athletes in Turkey.

**Method:** The screening model was used in our research. After giving preliminary information about the survey to the participants, a total of 207 volunteer athletes (92 (44.4%) female and 115 (55.6%) male athletes) participated in the study voluntarily. In the research, a personal information form was used in the first part, and a nutrition questionnaire consisting of two main parts was applied in the nutrition-related part. The first part of the nutrition questionnaire measured the nutritional knowledge level of the participants, and the second part measured their nutritional attitudes. The data obtained for the research were first transferred to the computer environment and then analyzed through the SPSS 22.0 package program.

**Results:** According to the results of the study, it was observed that the nutritional attitude values of the female participants were higher than the males, and this difference was found to be statistically significant ( $p < 0.05$ ). Considering the nutritional attitudes of the national athletes according to the being national athlete status variable of the participants, it was determined that the mean scores were higher than the non-national athletes and this situation was statistically significant ( $p < 0.05$ ).

**Conclusion:** When the results were examined, it was observed that the athletes who took nutrition lessons had higher nutritional knowledge and attitudes than those who did not, and national athletes had higher nutritional knowledge and attitudes than non-national athletes. The fact that national athletes can be in the camp environment at an early age and work with experts was inevitably beneficial for their nutritional knowledge and attitude.

**Keywords:** Badminton, Nutrition Knowledge and Attitude

## INTRODUCTION

Sports help to improve interpersonal relations and increase social participation. At the same time, sports help to increase cooperation and solidarity among people (Açıkada, 1994). It is seen that the importance of sports in society is increasing day by day (Duman, 2009). Sports includes the elements of social harmony, mental and physical health, and winning a competition. Moreover, it is a discipline recommended by educators in terms of personality formation and development, a view liked by the masses, a method used by administrators to shape energy and arouse a balanced and combative understanding, a game instinct bound to advanced rules that give pleasure and satisfaction to people (Fişek, 1978). Sports can be considered as team sports and individual sports. Badminton is one of the individual sports and one of the racquet sports.

Today, racquet sports are known as an expression that covers sports done by hitting a ball or other objects with a racket. To list these sports branches that are active in the world; Tennis, Table Tennis, Badminton and Squash are included (Taştan, 2019). Badminton, which is one of the Olympic sports, is a sport that is still developing in our country due to its extremely enjoyable and challenging situation. The branch of badminton aims to drop a ball made of goose feathers or plastic onto the opponent's court with a light racket held with one hand, and the game is a sportive game based on quickness, speed, dexterity, coordination and sudden decision-making (Demirci and Demirci, 2007:8). According to another definition, badminton is an Olympic sport with certain game rules (Çam, 2016:9). As in all sports, the importance of nutrition is important to be successful in badminton.

Adequate, regular and balanced nutrition, which is the most basic requirement of health, has vital importance in all phases of life, starting from the mother's womb for the continuation of life to the growth and development, productivity, health and well-being (Baysal, 2012). Nutrition also has an important place for the athlete to develop in his/her daily life or branch. Nutritional knowledge and nutritional attitudes of athletes are important both in terms of game performance and general health status.

Following all this information, our research, it was aimed to examine the nutritional knowledge levels and nutritional attitudes of badminton athletes in Turkey.

## MATERIAL AND METHOD

**Research Model and Participants:** The screening model was used in our research. After giving preliminary information about the survey to the participants, a total of 207 volunteer athletes, 92 (44.4%) female and 115 (55.6%) male athletes, participated in the study voluntarily.

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

On this scale, those who strongly agree with the correct information and attitudes were given +2 points, those who agree with it were given +1, those who are not sure were given 0 points, -1 point for those who disagree and -2 points for those who strongly disagree. In the questionnaire used in our research, there were 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.

**Data Analysis:** Research data were analyzed with SPSS 22.0 package program. At the same time, the Kolmogorov-Smirnov test was performed to determine whether the data showed normal distribution or not. As a result of the tests applied, it was determined that the data showed a normal distribution. In addition to frequency and percentage tables, Independent Sample T analysis, which is one of the parametric tests, was applied to the obtained data.

## RESULTS

Table 1: Personal Characteristics of the Research Group

	N	Age (year) (Mean±SD)	Height (cm) (Mean±SD)	Body Weight(kg) (Mean±SD)
Male	115	22,72±5,58	177,23±5,99	72,20±12,20
Female	92	163,81±11,65	163,81±11,65	58,06±8,63

When the personal characteristics of the research group were examined in Table 1; While the mean age of the female participants was 21.95±5.53 years, their mean height was 163.81±11.65 cm and their body weight was 58.06±8.63 kg, the mean age of the male participants was 22.72± 5.58 years, mean

height 177.23±5.99 cm and mean body weight was determined as 72.20±12.20 kg.

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

Variables	N	%	
Being National Athlete Status	Yes	58	28,0
	No	149	72,0
	Total	207	100,0
Have You Ever Taken a Nutrition Lesson?	Yes	107	51,7
	No	100	48,3
	Total	207	100,0
Educational Status	Primary School-Middle School	5	2,4
	High school	56	27,1
	Associate degree- Licence	137	66,2
	Postgraduate	9	4,3
	Total	207	100,0

When the demographic characteristics of the research group were examined in Table 2, 28.0% of the participants were national athletes, 51.7% of the participants had taken nutrition lessons before. Moreover, it was seen that 66.2% of the participants were associate degree graduates, and 2.4% of them reported that they were primary school-secondary-school graduates.

Table 3: Changes Between Groups by Gender Variable

Gender	N	Nutrition knowledge		P	Nutrition Attitude		P
		X	Sd		X	Sd	
Male	115	52,16	17,39	,458	22,00	10,21	,018
Female	92	50,48	14,37		25,33	9,60	

\*p<0,05

When Table 3 was examined, it was observed that the nutritional attitude values of female participants were higher than the males, and this difference was found to be statistically significant (p<0.05). In other words, it can be said that female participants were more conscious about nutrition attitudes than males. When the same table was continued to be examined, no statistical significance was found in the nutritional knowledge levels of the participants according to the gender variable (p>0.05).

Table 4: Changes Between Groups According to the Variable of Taking Nutrition Lessons

Have You Ever Taken a Nutrition Lesson?	N	Nutrition knowledge		P	Nutrition Attitude		P
		X Sd	Sd		X Sd	X	
Yes	107	53,64 15,35	,055	24,01 9,01	,472	Yes	107
No	100	49,34 16,67	14,37	23,00 10,96	25,33	No	100

\*p<0,05

Table 5: Changes Between Groups According to the Variable of Being National Athlete Status

Being National Status	N	Nutrition knowledge		P	Nutrition Attitude		P
		X Sd	Sd		X Sd	X	
Yes	58	52,56 20,05	,523	26,37 12,35	,010*	Yes	58
No	149	50,97 14,33	14,37	22,36 8,80	25,33	No	149

\*p<0,05

When Table 4 was examined, it was determined that the mean scores of the participants who took nutrition lessons were higher than those who did not take nutrition lessons, according to

the variable of participants having taken nutrition lessons before. Although the mean nutritional knowledge level of the participants who took the nutrition course was high, this situation was not found to be statistically significant (p>0.05). When we continued to examine the same table, it was observed that there was no statistically significant difference between the nutritional attitudes of the participants (p>0.05).

When we examine Table 5, when the nutritional attitudes of the national athletes according to them being national athlete variable of the participants were examined, it was determined that the mean scores of the non-national athletes were higher, and this situation was statistically significant (p<0.05). It is understood that national athletes act more consciously in terms of their nutritional attitudes and this situation creates awareness in their nutritional attitudes because they work with a dietitian or nutritionist in the national team camps. At the same time, when we look at the nutritional knowledge level result, it can be observed that there was no statistical significance (p>0.05).

### DISCUSSION

When we look at the results of the research examining the nutritional knowledge and attitudes of badminton athletes, it was seen that the nutritional attitudes of the female participants were better than the male participants, and it was determined that national athletes had a higher nutritional attitude mean than non-national athletes. It was concluded that these differences were statistically significant. Again, in our study, it was concluded that the nutritional knowledge and attitude means of the athletes who took nutrition lessons were higher than those who did not, but this difference was not statistically significant.

Vançelik et al. (2007) concluded in their study that the mean score of eating habits was significantly higher in boys than in girls. In another study, Aytekin (1999) conducted research on the effect of nutrition education given to university students on their nutritional behaviours and revealed that nutrition education had a positive effect on their nutritional behaviours. The results of this study, in which adequate and balanced nutrition attitudes were investigated, had a positive effect on individuals and had an importance on humans. Besides, we can understand that the result of the study was in parallel with the result of our study.

Cihangiroğlu and Devenci (2011) and Üstün et al. (2020), while their studies were similar to our research results, Onurlubaş et al. (2015), Ermis et al. (2015) revealed that the majority of university students (64%) had insufficient nutritional knowledge. In this context, considering the increasing obesity rates in the world (WHO), the high nutritional scores of university students were of great importance in terms of preventing future cardiovascular diseases and psychological diseases (Dinç, 2021; Dinç, 2020).

It was understood from the results of all these studies that nutrition knowledge and attitude can be improved by raising awareness on individuals and by necessary training. When we look at other studies performed, Bilgiç et al. (2001), Pular and Cicioğlu (2001) in their study on athletes mostly showed their trainers as nutritional knowledge and resources of athletes. It was understood from this that it would not be wrong to say that the reasons why national athletes had higher nutritional attitude scores than non-national athletes in our study were the national team trainers and opportunities.

In conclusion; as can be understood from our research, to disseminate the positive effects of having taken a nutrition course on the nutritional knowledge and attitudes of individuals, a more conscious nutrition level can be achieved in young people and adults in the later ages, by providing education to children in schools and by creating the necessary educational environment for parents. It is inevitable that national athletes can be in the camp environment and work with experts at an early age. To see the effects of these opportunities on non-national athletes, many trainings can be given or if club coaches are made more conscious

about this issue, we can experience the pride of raising a healthier and more aware generation in the coming years.

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