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Original article

## EXAMINING NUTRITIONAL HABITS OF SOCCER PLAYERS AT YOUTH DEVELOPMENT TEAMS

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### Abstract\*

*Aim.* This study were carried out with the purpose of examining nutritional habits of soccer's players at youth development teams at Turkish Super League and First League, in the end of season 2013-2014.

*Methods.* 377 soccer players from Kayseri, Kütahya, Samsun and Sivas provinces were selected through random sampling method. A survey related to feeding styles and habits were conducted to players.

*Results.* According to the results of study, It was seen that the most participation of the soccer players was from Sivasspor team. It was determined that the majority of soccer players who were 13-19 ages were at secondary school level with 62,3% and had elementary family type. Soccer players were observed to have 3-4 years of sports age with 29,7% and trained three days per week. It was concluded that soccer players eat three times a day. Wheel considering the findings related to snack consumptions; It was found that they chose mid-afternoon with 35,5%. However it was seen that the majority of players were not seen to use protein powder, vitamins and minerals. It was determined that soccer players preferred the last main meal 2 hours before training or match, and they preferred soda water and water before 1 hour or during the game or half-time. When de examine the findings of voluntary participants to our research, it was determined that 40.6% of athletes consumed milk and dairy products.

*Conclusions.* As a result; It was suggested that soccer players and families who bring up them and trainers who train them need to have more knowledge about sports nutrition. As a result of researches, the most missing point is feeding habits were not acquired in any ways. We think about that training athletes and their relations about sports nutrition is significant with regard to athletic performance.

*Keywords:* sports, soccer, feeding habits

### Introduction

Sports can be defined as physical movements carried out individual or collective, generally cause to competition, and where some rules are applied and expected to be useful in later durations (Dündar, 1994).

As sportive performance can be improved by a balanced diet, it can be affected negatively with a malnutrition. Athletes should consider the advantages can be supplied by a balanced diet along with training. Indeed, high efforts have been made to train, and a balanced diet matters for not to disappoint these efforts (Şemşek, Yüktaşır, 2001).

Along with the increasing interest to sports, sports nutrition have become amore argued and researched issue (Süel, 2006).

Sports nutrition is a multidisciplinary field of study that is supported by exercise biochemistry and physiology. This field of study, contains developing nutrition rules and actualize them for a healthy life of athletes, being adapted to training programme, a rapid recovery after training, and to

optimize competition performance. In the achievement of an athlete, regular training, motivation and choosing suitable nutrition model are important as well as genetic predisposition. Correct nutrition programmes applied along with training programme, help athletes to develop their athletic performance. The amount of food needed and energy uptake, show difference according to the sports branch. The reason of this difference is that nutritional elements are different used according to the type of sports. Each food to take place in nutrition programme of an athlete should be special for each athlete. Applicability of nutrition programme by athlete; is highly depended on their nutrition habits, socio-economic status, and individual conditions. In addition, this nutrition programme prepared, provides self-confidence that athlete will be successful (Şakar, 2010). Nutrition is a significant factor in soccer. Ability to supply adequate energy to muscles have influence on performance. However, high performance can be reached by completing energy resources of soccer players with adequate and balanced diet. In order to

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regain strength that was lost due to high performance loads and competitions soccer players must give particular importance to nutrition. Nutrition is the most important factor affecting performance (Özmerdivenli, Karacabey, 2002).

Performance in soccer, can be improved through regular training and balanced diet, but can be negatively affected with malnutrition as well (Güneş, 2005).

In our country, it is well-known that some researches have been carried out examining some nutritional characteristics of individuals who have various characteristics and different age groups (Şanlıer, Konaklıoğlu, Güver, 2009, Güven, Özdemir, Ersoy, 2009). However, nutritional habits of athlete candidates at sub-structures of Professional teams were not revealed.

This research, were carried out with the purpose of examining feeding habits of soccer players at youth development teams at Turkish Super League and First League.

## Results

**Table 1.** Distribution of soccer players according to regions

| Region          | Number (n) | Percent (%)  |
|-----------------|------------|--------------|
| Kayseri Erciyes | 72         | 19.1         |
| Samsun          | 112        | 29.7         |
| Tavşanlı        | 74         | 19.6         |
| Sivas           | 119        | 31.6         |
| <b>Total</b>    | <b>377</b> | <b>100.0</b> |

When examining the distributions of athletes participated in study, maximum participants were from Sivasspor with 31,6% and Samsunspor with 29,7%, Kayseri ErciyesSpor with 19.1%, TavşanlıLinyitSpor with 19,6 (**Table 1.**)

**Table 2.** Distribution of soccer players according to ages

| Age          | Number (n) | Percent (%)  |
|--------------|------------|--------------|
| 13.00        | 13         | 3.4          |
| 14.00        | 35         | 9.3          |
| 15.00        | 62         | 16.4         |
| 16.00        | 82         | 21.8         |
| 17.00        | 105        | 27.9         |
| 18.00        | 66         | 17.5         |
| 19.00        | 14         | 3.7          |
| <b>Total</b> | <b>377</b> | <b>100.0</b> |

When examining age distributions of voluntary participants it was determined that they are at; 17.00 age with 27.9%, 16.00 age with 21,8%, 18.00 age with 17,5%, 15.00 age with 16,4%, 14.00 age with 9,3%, 19.00 age with 3,7% and 13.00 age with 3,4% (**Table 2**)

**Table 3.** Distribution of soccer players according to their education level

| Level            | Number (n) | Percent (%)  |
|------------------|------------|--------------|
| Primary School   | 50         | 13.3         |
| Secondary School | 235        | 62.3         |
| High School      | 92         | 24.4         |
| <b>Total</b>     | <b>377</b> | <b>100.0</b> |

## Methods

In this research Super League (18 teams) and First League (18 teams) were evaluated as layer. Teams at each layer were defined as clusters. Two clusters were chosen from Super League and First League teams with random sampling method. These chosen teams (Kayseri Erciyes Spor, Sivas Spor, TavşanlıLinyitSpor and Samsun Spor) were established as sample groups. A questionnaire form towards determining personal info, training durations, general nutritional habits and knowledge level of nutrition were conducted by interviewing with players. The questionnaire used in research were developed by taking examples from similar researches carried out before (Öztürk, 2006).

### Statistical Analysis

The data obtained in research, were analyzed by using SPSS (Statistical Package for Social Sciences). Frequency distributions were made as descriptive statistics in the evaluation of data.



When examining current educational level of football players, it was determined that 62.3 % of them in secondary school, 24.4 % of them in high

school and 13.3 % of them in primary school level (**Table 3**).

**Table 4.** Distribution of soccer players according to their family types

| Family            | Number (n) | Percent (%)  |
|-------------------|------------|--------------|
| Elementary Family | 288        | 76.4         |
| Extended Family   | 89         | 23.6         |
| <b>Total</b>      | <b>377</b> | <b>100.0</b> |

When looking at the findings composed in accordance with the answers given by students attended our study, it was determined that 76.4 %

gave the answer of elementary family and 23.6 % gave the answer of extended family (**Table 4**).

**Table 5.** Distribution of soccer players according to their sports ages/experiences

| Sports Age/Experience | Number(n)  | Percent (%)  |
|-----------------------|------------|--------------|
| Less than 2 years     | 56         | 14.9         |
| 3-4 Years             | 112        | 29.7         |
| 5-6 Years             | 101        | 26.8         |
| 7-8 Year              | 104        | 27.6         |
| More than 9 years     | 4          | 1.1          |
| <b>Total</b>          | <b>377</b> | <b>100.0</b> |

When examining the sports age of volunteers, it was determined that 3-4 years of 29.7 %, 7-8 years

of 27.6 %, 5-6 years of 26.8 %, less than 2 years of 14.9 % and more than 9 years of 1.1 % (**Table 5**).

**Table 6.** Distribution of soccer players according to their weekly training days

| Day          | Number (n) | Percent (%)  |
|--------------|------------|--------------|
| 2.0          | 72         | 19.1         |
| 3.0          | 166        | 44.0         |
| 4.0          | 66         | 17.5         |
| 5.0          | 50         | 13.3         |
| 6.0          | 16         | 4.2          |
| 7.0          | 7          | 1.9          |
| <b>Total</b> | <b>377</b> | <b>100.0</b> |

When examining the answers of volunteers attended to study in accordance with the weekly days of training, it was determined that 3 days of

44.0 %, 2 day of 19.1 %, 4 days of 17.5 %, 5 days of 13.3 %, 6 days of 4.2 % and 7 days of 1.9 % (**Table 6**).

**Table 7.** Distribution of soccer players according to their daily average sleeping durations

| Hours        | Number (n) | Percent (%)  |
|--------------|------------|--------------|
| 6.0          | 24         | 6.4          |
| 7.0          | 62         | 16.4         |
| 8.0          | 159        | 42.2         |
| 9.0          | 80         | 21.2         |
| 10.0         | 52         | 13.8         |
| <b>Total</b> | <b>377</b> | <b>100.0</b> |

When examining the findings related to daily average sleeping durations of athletes attended to questionnaire, 8 hours of 42.2 %, 9 hours of 21.2 %, 7 hours of 16.4 %, 10 hours of 13.8 % and 6 hours of 6.4 % (**Table 7**).



**Table 8.** Distribution of soccer players according to their average walking hours

| Hour/s       | Number (n) | Percent (%)  |
|--------------|------------|--------------|
| 1.0          | 164        | 43.5         |
| 2.0          | 93         | 24.7         |
| 3.0          | 74         | 19.6         |
| 4.0          | 46         | 12.2         |
| <b>Total</b> | <b>377</b> | <b>100.0</b> |

When evaluating the finding composed of the answer of attenders, 1 hour of 43.5 %, 2 hours of 24.7 %, 3 hours of 19.6 % and 4 hours of 12.2 % (Table 8).

**Table 9.** Distribution of soccer players according to number of meals

| Meal         | Number (n) | Percent (%)  |
|--------------|------------|--------------|
| 2.0          | 48         | 12.7         |
| 3.0          | 170        | 45.1         |
| 4.0          | 126        | 33.4         |
| 5.0          | 33         | 8.8          |
| <b>Total</b> | <b>377</b> | <b>100.0</b> |

In accordance with answers related to daily meal numbers of volunteer attenders, it was determined that 3 meals of 45.1 %, 4 meals of 33.4 %, 2 meals of 12.7 % and 5 meals of 8.8 % (Table 9).

**Table 10.** Distribution of soccer players according to snack consumption

| Snack                    | Number (n) | Percent (%)  |
|--------------------------|------------|--------------|
| Mid-Morning              | 42         | 11.1         |
| Mid-Afternoon            | 134        | 35.5         |
| At night before sleeping | 102        | 27.1         |
| No Snack Consumption     | 99         | 26.3         |
| <b>Toplam</b>            | <b>377</b> | <b>100.0</b> |

When examining the findings in accordance with answers of attenders to questionnaire in this study, it was determined that midafternoon of 35.5 %, before sleeping of 27.1 %, no snack consumption of 26.3 % and midmorning of 11.1 % (Table 10).

**Table 11.** Distribution of soccer players according to snack consumption preferences

| Snack Consumption Preference | Number (n) | Percent (%)  |
|------------------------------|------------|--------------|
| No snack                     | 45         | 11.9         |
| Chocolate                    | 112        | 29.7         |
| Pastries                     | 44         | 11.7         |
| Fruits                       | 125        | 33.2         |
| Snacks                       | 16         | 4.2          |
| Dried Fruits                 | 10         | 2.7          |
| Beverages                    | 14         | 3.7          |
| Other                        | 11         | 2.9          |
| <b>Total</b>                 | <b>377</b> | <b>100.0</b> |

When examining the findings in accordance with answers given by attendee athletes, it was determined that fruit of 33.2 %, chocolate of 29.7 %, no snack consumption of 11.9 %, pastry of 11.7 %, snacks of 4.2 %, beverage of 3.7 %, other of 2.9 % and dried fruit (Table 11).

**Table 12.** Distribution of soccer players according to vitamins and minerals usage

| Vitamins and Mineral Usage | Number (n) | Percent (%)  |
|----------------------------|------------|--------------|
| Yes                        | 33         | 8.8          |
| No                         | 282        | 74.8         |
| Sometimes                  | 62         | 16.4         |
| <b>Total</b>               | <b>377</b> | <b>100.0</b> |

When examining the findings composed in accordance with the answers to questionnaire



related to vitamin-minerals usage of football players, it was determined that no of 74.8 %, sometimes of 16.4 % and yes of 8.8 % (Table 12).

**Table 13.** Distribution of soccer players according to vitamins and minerals usage frequency

| Vitamins and Mineral Usage Frequency | Number (n) | Percent (%)  |
|--------------------------------------|------------|--------------|
| Never                                | 254        | 67.4         |
| Everyday                             | 13         | 3.4          |
| 2-3 Per week                         | 18         | 4.8          |
| Sometimes                            | 92         | 24.4         |
| <b>Total</b>                         | <b>377</b> | <b>100.0</b> |

When examining the findings composed as a result of the answers of attender athletes, it was determined that never of 67.4 %, sometimes of 24.4 %, 2-3 times of week of 4.8 % and every day of 3.4 % (Table 13).

**Table 14.** Distribution of soccer players according to protein powder usage

| Protein powder usage | Number(n)  | Percent (%)  |
|----------------------|------------|--------------|
| Everyday             | 7          | 1.9          |
| 2-3 Per week         | 11         | 2.9          |
| Sometimes            | 24         | 6.4          |
| Not using            | 335        | 88.9         |
| <b>Total</b>         | <b>377</b> | <b>100.0</b> |

When examining the findings in accordance with answers of volunteers, it was determined that no usage of 88.9 %, sometimes of 6.4 %, 2-3 times of week of 2.9 % and every day of 1.9 % (Table 14).

**Table 15.** Distribution of soccer players according to last meal before training or competition

| Hour           | Number (n) | Percent (%)  |
|----------------|------------|--------------|
| 1 hour before  | 21         | 5.6          |
| 2 hours before | 165        | 43.8         |
| 3 hours before | 155        | 41.1         |
| 4 hours before | 36         | 9.5          |
| <b>Total</b>   | <b>377</b> | <b>100.0</b> |

When examining the findings composed in accordance with the answers of attender youth setup athletes, it was determined that 2 hours before of 43.8 %, 3 hours before of 41.1 %, 4 hours before of 9.5 % and 1 hour before of 5.6 % (Table 15).

**Table 16.** Distribution of soccer players according to their consumption preferences an hour before competition

| Consumption Preferences | Number (n) | Percent (%)  |
|-------------------------|------------|--------------|
| Tea-Coffee              | 36         | 9.5          |
| Beverage-Coke           | 35         | 9.3          |
| Mineral Water-Water     | 172        | 45.6         |
| Chocolate-Sugar         | 41         | 10.9         |
| No consumption          | 93         | 24.7         |
| <b>Total</b>            | <b>377</b> | <b>100.0</b> |

When examining the findings composed in accordance with answers of volunteers, it was determined that water-mineral water of 45.6 %, no consumption of 24.7 %, chocolate-sugar 10.9 %, tea-coffee of 9.5 % and beverage-coke of 9.3 % (Table 16).

**Table 17.** Distribution of soccer players according to beverage consumption on half-time and during the competition

| Half-Time Beverage Consumption | Number (n) | Percent (%) |
|--------------------------------|------------|-------------|
| Water                          | 322        | 85.4        |
| Mineral Water                  | 19         | 5.0         |
| Tea                            | 1          | 0.3         |
| Juice                          | 3          | 0.8         |
| Cokes                          | 6          | 1.6         |
| No Consumption                 | 26         | 6.9         |



|  |            |   |
|--|------------|---|
| <b>Total</b>   | <b>377</b> | <b>100.0</b>  |
| When examining the findings composed in accordance with answers of volunteer attender athletes, it was determined that water of 85.4 %, no |            | consumption of 6.9 %, mineral water of 5.0 %, cokes of 1.6 %, juice of 0.8 % and tea of 0.3 % (Table 17). |

**Table 18.** Distribution of soccer players according to recovery preferences after competition

| Recovery Preference After Competition | Number (n) | Percent (%)  |
|---------------------------------------|------------|--------------|
| Meal                                  | 43         | 11.4         |
| Sleeping                              | 78         | 20.7         |
| Resting                               | 97         | 25.7         |
| Fruit                                 | 11         | 2.9          |
| Bath                                  | 75         | 19.9         |
| Other                                 | 73         | 19.4         |
| <b>Total</b>                          | <b>377</b> | <b>100.0</b> |

When examining the findings composed in accordance with answers of athletes at different ages, it was determined that resting of 27.7 %, sleeping of 20.7 %, bath of 19.9 %, other of 19.4 %, meal of 1.4 % and fruit of 2.9 % (Table 18).

**Table 19.** Distribution of soccer players according to milk consumption

| Milk Consumption | Number (n) | Percent (%)  |
|------------------|------------|--------------|
| Everyday         | 153        | 40.6         |
| Every other day  | 90         | 23.9         |
| Weekly           | 85         | 22.5         |
| Monthly          | 21         | 5.6          |
| Never            | 28         | 7.4          |
| <b>Total</b>     | <b>377</b> | <b>100.0</b> |

When examining the findings composed in accordance with the answers of volunteer attenders, it was determined that every day of 40.6 %, every other day of 23.9 %, weekly of 22.5 %, never of 7.4 % and monthly of 5.6 % (Table 19).

**Table 20.** Distribution of soccer players according to cheese consumption

| Cheese Consumption | Number (n) | Percent (%)  |
|--------------------|------------|--------------|
| Everyday           | 253        | 67.1         |
| Every other day    | 69         | 18.3         |
| Weekly             | 29         | 7.7          |
| Monthly            | 4          | 1.1          |
| Never              | 22         | 5.8          |
| <b>Total</b>       | <b>377</b> | <b>100.0</b> |

When examining the findings composed in accordance with the answers of attender athletes, it was determined that every day of 67.1 %, every other day of 18.3 %, weekly of 7.7 %, never of 5.8 % and monthly of 1.1 % (Table 20).

**Table 21.** Distribution of soccer players according to vegetable consumption

| Vegetable Consumption | Number (n) | Percent (%)  |
|-----------------------|------------|--------------|
| Everyday              | 73         | 19.4         |
| Every other day       | 80         | 21.2         |
| Weekly                | 143        | 37.9         |
| Monthly               | 31         | 8.2          |
| Never                 | 50         | 13.3         |
| <b>Total</b>          | <b>377</b> | <b>100.0</b> |

When examining the findings in accordance with the answers of soccer players; it is seen that their vegetable consumption; 37,9% weekly, 21,2% every other day, 19,4% everyday, 13,3% never and 8,2% monthly (Table 21).

### Discussion

Findings in this study which carried out with the purpose of examining nutritional habits of soccer

players at Youth Development teams in First League and Super League, were compared to



studies carried out in this field of study and there were no any similarities and differences seen.

When examining the distributions of athletes participated in this study, the most participants were from Sivasspor with 31,6%, and Samsunspor with 29,7%, Kayseri ErciyesSpor with 19,1%, Tavşanlı Linyit Spor with 19,6.

When examining age distributions of athletes it was determined that they were at; 17.00 age with 27,9%, 16.00 age with 21,8%, 18.00 age with 17,5%, 15.00 age with 16,4%, 14.00 age with 9,3%, 19.00 age with 3,7% and 13.00 age with 3,4%. In a similar study; athletes were seen to have under 19 age of 4,2%, 19-25 ages of 80,9%, 25-29 ages of 12,8%, 30 or above age of 2,1% (Saygın, Öngel, Çalışkan, Yağlı, Has, Gonca, Kurt, 2011). In an another study, they were seen to have 20-22 age of 30%, 23-25 age of 40% (Öztürk, 2006).

As our study and other studies are at different age groups, distributions show differences.

In these studies, it was determined that education levels of athletes were primary school with 13,3%, secondary school with 62,3%, high school with 24,4%. In studies carried out on different age groups; 70,8% of amateur soccer players were high school or similar, 16,7% of bachelor's degree, 12,5% of primary school (Göral, Çevik, Saygın, Öcal, 2006), in another study; players were found to have 67,5% of high school, 25% bachelor's degree, 7,5% primary school degrees (Öztürk, 2006). In studies, We are of opinion that education levels are different depending on the differences of age groups.

When we look at the family types of participants, it was determined that 76,4% had elementary family, 23,6% had extended family. In studies, while soccer players were determined to have 77,5% elementary family, 20,9% extended family, 1,6% fragmented family (Vançelik, Önal, Güraksın, Beyhun, 2007). Similarly it was determined that 95,0% had elementary family, 5% had extended family (Öztürk, 2006). Our study an other studies demonstrate that most of the athletes have elementary families.

Sports ages of participants were respectively 3-4 years with 29,7%, 7-8 years with 27,6%, 5-6 years with 26,8%, less two years with 14,9% and more than 9 years with 1,1%. In a similar study, 2-4 years with 20%, 5-7 years with 20%, 8-10 years with 25%, and 11-13 years with 35% (Öztürk, 2006). Athletes participated in study, were seen to have that they had 2 years or more sports ages. From this viewpoint, the research topic related to athletes nutrition came to the fore more frequently, and even though they show difference for different age or sports branches, researches are being carried out to acquire a balanced diet habit. According to the researches, an athlete knowledge about nutrition, must act being aware which foods are good for

performance and which are bad (Altıntaş, Akalan, 2008). When considering sports ages of athletes 2 years or more, it can be thought that these knowledges have been acquired by athletes.

When training days of athletes are examined; 44,0% of were 3 days, 19,1% of were 2 days, 17,5% of were 4 days, 13,3% of were 5 days, 4,2% of were 6 days, and 1,9% of were 7 days. Daily training hours of athletes were, 58,1% 2 hours, 31,8% 1 hour, and 10,1% 3 hours. When the values obtained are examined, they were seen that they trained at least 2 days. From this viewpoint, when considering that 44,0% of teams were 3 days, it can be thought that they apply convenient training programmes to loading elements.

Daily average sleeping durations of athletes were 42,2% 8 hours, 21,2% 9 hours, 13,4% 7 hours, 13,8% 10 hours, and 6,4% 6 hours. These results show that sleeping durations of habits are adequate and ordinary. When considering that nutrition is not only restricted with eating and drinking but also sleeping, in research athletes highly have this knowledge. In the question related to walking hours of athletes they were determined to walk 43,5% 1 hours, 24,7% 2 hours, 19,6% 3 hours, and 12,2% 4 hours. Being low of walking activity of athletes, may arise from too exhausting training sessions.

Daily meal numbers of athletes they eat three meals (45,1%) this is the highest rate and the lowest rate is 5 meals (8,8%). In literature research 59,6% of athletes were determined to have 3 meals, 24,9% 4 meals, 5,5% 5 meals (Arıkan, Şanlıer, 2006). In another study, 82,8% of soccer players had 3 meals (Atay, Kılınc, Kılıç, Çetinkaya, 2006). In another study, 55,0% of athletes were seen to eat more than 3 meals (Bozkurt, 2001). Similarly, in a study it was suggested that 88% of athletes should eat more than 3-4 meals (Bayraktar, Saygın, Karacabey, 2008). Literature studies support our findings. We can see that meal times of athletes in our community have 3-4 meals. In snack consumptions of athletes, they were seen to answer 35,5% midafternoon, 27,1% before sleeping, 26,3% no snacks, and 11,1% midmorning. In another study according to the results they were; 10,0% midafternoon, 50% no meal consumption at night (Öztürk, 2006). When we analyses these results; unlike the other studies, the differences in meal consumption of athletes may arise from age groups.

According to the values of snack consumption preferences of athletes, It was determined that the highest rate was fruit (33,2%), and the lowest rate was dried fruit (2,7%). In a similar study, 65,7% tea, 45,7% juice, 42,9% coffee, 33,7% soda, and 27,4% milk and yoghurt drink (Süel, 2006). When we analyses the results, the reason that our study show difference; our athletes consume solid food, and athletes in other studies consume liquids.



The answers related to Vitamin-Minerals usage of athletes, 74.6% were non-use, 17.0% were sometimes, and 8.5% were Yes. There is no sufficient literature research related to vitamin needs of athletes. According to the limited studies available, while an athlete who feeds balanced, has no need to use extra vitamins giving food support to athletes who has no lackness of vitamins and minerals have no any significant influences (Aydoğdu, 2006).

As parallel to this result, most of the athletes participated in our study, were seen not to take extra vitamins. When findings are analyzed related to protein powder usage of voluntary participants, they were determined to give answers as 88.9% no usage, 6.4% sometimes, 2.9% 2-3 per week, 1.9% every day. In other studies soccer players use additional sports food, (Swirzinski, Latin, Berg, Grandjean, 2000), in another study, 52.2% use sports food (Özdoğan, Özçelik, 2008). In a different study, soccer players were determined to use protein powders, amino acids and sports drinks (Ayça, Çiloğlu, 1997). These results show that 88.0% of our athletes do not use protein powder and the reason of this they were informed or directed about athletes nutrition.

When we analyze last meals of athletes in our studies, the highest rate was 2 hours before (43.8%), and the lowest rate was 1 hour before (5.6%). In a similar study, 100% of professional soccer players, and 92.5% of amateur soccer players (Göral, 2008) in another study, 100% of professional soccer players, and 95% of soccer players had 3-4 hours between the last meal and competition (Öztürk, 2006). 88% of athletes, have described that there must be 3 hours between the last meal and competition (Bayraktar, Saygın, Karacabey, 2008). 73.8% (Bayraktar, Saygın, Karacabey, 2008) and 72.2% of Athletes were mentioned to take care of their nutritions before training (Tekin, Arslan, 2005). From these results; we are of opinion that, the reason our study is different regarding other studies is there are differences in knowledges related to nutrition between pro and amateur athletes and amateur athletes have less knowledge about nutrition and as amateur athletes grow older their nutrition knowledge increases.

In this study, when we analyze the consumption of soccer players before 1 hour to competition, it was determined that the highest preference was water and mineral water (45.6%) and the lowest preference was juice and cokes (9.3%). It is very important for athletes to take adequate amount of liquids for keeping exercise capacity optimum.

Especially in warmer weather conditions dehydration (more than 2% of liquid loss of body) may affect exercise and mental performance (Sawko, Burke, Eichner, Maughan, Montain,

Stachenfeld, 2007). When we check the results, athletes were seen to use mostly water and mineral water. The reason of this is thought to be financial impossibilities of youth setup of teams and as trainers cannot provide something else to drink. When findings are examined related to half-time or during match beverage consumptions, It can be seen that the highest rate is water (85.4%) and the lowest rate is tea (0.3%). We are of opinion that this situation arise from dehydration during the game and players mostly prefer cold beverages.

When findings are examined related to milk consumption; they consume dairy products; 40.6% everyday, 23.9% every other day, 22.5% per week, 7.4% never and 5.6% per month. With regard to yoghurt consumption; 39.0% every other day, 28.1% per week, 23.9% every day, 4.5% never and per month; with regard to their cheese consumption; 67% every day, 18.3 every other day, 7.7% per week, 5.8% never, and 1.1% monthly. When we examine the findings of our participants; it is observed that most of the athletes have been consuming milk or dairy products. And this indicates that athletes have knowledge about the uses of dairy products.

In the questionnaire which we conducted to athletes; they gave answers as; in green vegetables 33.7% per week, 28.6% every other day, 20.2% everyday, 11.4% never, and 6.1% per month. When other findings are analyzed, 37.9% per week, 21.2% every other day, 19.4% every day, 13.3% never, and 8.2% per month.

### Conclusion

These results show that athletes participated in our study had weak vegetable consumption habits. As a result, It can be suggested that trainers and athletes needs to have more knowledge about sports nutrition. The greatest emptiness seen at researches, nutrition habits are not conscious. The people who deals with this subject; must educate themselves better and athletes must be supported by education. To make more researches with more repetitions and on many volunteers, is very important to establish norms. We are of opinion that these studies will clear up trainers and athletes in applied sports sciences.

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