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NUTRITIONAL HABITS OF PHYSICAL EDUCATION AND SPORT SCHOOL STUDENTS OF AKSARAY UNIVERSITY

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Abstract

Purpose. The aim of this study was to determine the nutritional habits of Physical Education and Sport School students of Aksaray University.

Methods. The students in the Physical Education and Sport School of Aksaray University constitute the sampling of this research. Data were collected by performing a questionnaire including 33 items to 261 students and analyzed by using SPSS 15.0 software. For statistical analysis, frequency and percentage (%) distributions were calculated.

Results. It was determined that 84.2% of the students were passed meals because of time (43.8%) and unwillingness (40.4%). 44.2% of the students have two meals in a day and evening meals were more regular than breakfast and lunch. The frequency of consumption of milk, water, fruit and vegetables among students were under the necessary levels.

Conclusions. The results of this study indicated that university students often skip meals, the most leaving out meal was lunch and they had an unhealthy nutritional pattern in general.

Key words: Nutritional habits, university students' nutrition.

Introduction

Nutrition is the intake of food, considered in relation to the body's dietary needs. Good nutrition – an adequate, well balanced diet combined with regular physical activity – is a cornerstone of good health. Poor nutrition can lead to reduced immunity, increased susceptibility to disease, impaired physical and mental development, and reduced productivity.

Eating habits help a person to perform work especially for the young ones who are studying. With the right quality and quantity of the food taken into our bodies, our mental and physical capacities can be enhanced. This can improve our health and thus avoid risks for certain diseases and illnesses. On the other hand, nutrition education is a key element to promoting lifelong healthy eating and exercise behaviours and should start from the early stages of life (Perez-Rodrigo, Aranceta, 2001).

Since the effects of nutrition on school and sporting performance are well-known and nutrition habits of Physical Education and Sports School students has a

special significance, there are so many research studies carried out on this topic (Li, Conception, Lee et al. 2012; Rakıcıoğlu, Akal Yıldız, 2011; Sevindi, Yılmaz, İlbis et al. 2007; Ortega, Requejo, Sanchez Muniz et al. 1997; Yılmaz, Özkan, 2007; Yıldırım, Yıldırım, Tortop et al. 2011; Vançelik, Önal, Güraksın et al. 2007; Korkmaz, 2010).

Methods

The study was carried out during November-December 2012 and the universe of the study consisted of the students of Physical Education and Sports School of Aksaray University. The students studying in the Physical Education and Sport School of Aksaray University constitute the sampling of this research. There is not any sampling method used in this study. Data were collected by performing a questionnaire including 33 items to 261 students and analyzed by using SPSS 15.0 software. For statistical analysis, frequency and percentage (%) distributions were calculated.

Results

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In this study, the nutritional habits of Physical Education and Sport School students of Aksaray University were determined by performing a questionnaire including 33 items to 261 students and analyzing the data collected. The results obtained were summarized below.

The frequency and percentage (%) distributions of number of main meals and snack that students having per day are shown in Table 1. The number of the meals that participants had per day (one meal, two meals, three meals) were determined as 25.0%, 44.2% and, 28.1%, respectively. The results of our study showed that most of the students have irregular meals with two main meals per day. It is well known that eating three main meals per day is recommended by the

nutritionists. The term "snack" refers to all foods and drinks taken outside the context of the three main meals (De Graaf, 2006). Eating snacks was a common habit among students and daily snack consumption was reported as once a day by 57.6% and twice a day by the 30.7% of the participants (Table 1).

The frequency and percentage (%) distributions of students skipping meals are given in Table 2. The percentage distribution values of skipping breakfast, lunch and dinner are 86.4%, 80.7%, and 47.7%, respectively. Moreover, 52.3% of the students replied that they never missed dinner or missed dinner more rarely in 15 days period. Evening meals were more regular than breakfast and lunch (Table 2).

Table 1. The frequency and percentage (%) distributions of number of main meals and snack that students having per day

Meals	Number of Meals	N	%
Main	One meal	65	25.0
	Two meals	115	44.2
	Three meals	73	28.1
	Four meals	5	1.9
	Five meals	2	0.8
	Total	260	100
Snack	One meal	151	57.6
	Two meals	79	30.7
	Three meals	20	7.8
	Four meals	7	2.7
	Five meals	3	1.2
	Total	260	100

Table 2. The frequency and percentage (%) distributions of students skipping meals

Meals	Always	N	%
		91	42.7
Breakfast	1 or 3 times a week	93	43.7
	1 time and more rarely per 15 days	16	7.5
	Never	13	6.1
	Total	213	100.0
Lunch	Always	70	32.3
	1 or 3 times a week	105	48.4
	1 time and more rarely per 15 days	22	10.1
	Never	20	9.2
Dinner	Total	217	100.0
	Always	73	28.3
	1 or 3 times a week	50	19.4
	1 time and more rarely per 15 days	73	28.3
	Never	62	24.0
	Total	258	100.0

Eating breakfast is a good way to start the day. Many nutritionists have been concerned about the numbers of students arriving at school without having had breakfast. In this study, although irregular meals

consumption was reported in 69.2% of students, the majority of them (57.3%) have breakfast at least three times per week. According to the result of a study, 15% of the students surveyed on a weekday had not eaten



any breakfast (Mason, Savage, 1997). In another study, it was determined that breakfast and lunch were the most frequently skipped meals, with a total of 47.7% of students skipping breakfast and 25.2% of them skipping lunch (Rakicioglu, Akal Yildiz, 2011). According to Yildirim, Yildirim, Tortop et al. (2011), 61.5% of the students did not have the regular

breakfast and a very low proportion of students (38.5%) have regular breakfast. The frequency and percentage (%) distributions of the reasons of students skipping meals are presented in Table 3. It was determined that 84.2% of the students were passed meals because of time (43.8%) and unwillingness (40.4%).

Table 3. The frequency and percentage (%) distributions of the reasons of students skipping meals

Reasons of students skipping meals	N	%
Did not have time	114	43.8
Unwillingness	105	40.4
Wish to loose weight	24	9.2
Due to dissatisfaction of the food in workplace	17	6.5
Total	260	100.0

The frequency and percentage (%) distributions of the breakfast preferences of the students are presented in Table 4. The results have shown that most of the students (76.2%) preferred classic Turkish breakfast.

Only 11.7% of the students replied that they have no breakfast. Among them, 12.1% replied the same question as preferring breakfast cereals

Table 4. The frequency and percentage (%) distributions of the breakfast preferences of the students

Breakfast preferences	N	%
Classic Turkish breakfast	200	76.02
Breakfast cereals	31	12.1
Do not have breakfast	30	11.7
Total	261	100.0

In another study, it was determined that total percentage of the students passing meals was determined as 83.2%. Among them, 46.6% and 26.4%

passed meals because of time and anorexia, respectively (Yildirim, Yildirim, Tortop et al. 2011). The frequency and percentage (%) distributions of the lunch place preferences are given in Table 5.

Table 5. The frequency and percentage (%) distributions of the lunch place preferences

Lunch place preferences	N	%
Home	64	24.6
Refactory	70	26.9
Out	119	45.8
Brought with me	7	2.7
Total	260	100.0

Moreover, 45.8% of the students replied that they had lunch out and 26.9% of which preferred refactory for lunch place. One of the questions that has been asked was "how satisfied you are with the given workplace canteen meals". Most of the students answered that

question as "so glad" (9.7%, n= 25), "glad" (23.2%, n= 60), and "so-so" (52.1%, n= 135). The frequency and percentage (%) distributions of the students satisfaction with the workplace canteen meals are given in Table 6.

**Table 6.** The frequency and percentage (%) distributions of the students satisfaction with the workplace canteen meals

Satisfaction degree	N	%
So glad	25	9.7
Glad	60	23.2
So-so	135	52.1
Not glad	39	15.1
Total	259	100.0

The question “where do you eat when you eat out more often?” was replied as 40.4% of the students grilled, kebab, pide etc serving restaurants. The following answers were “at the restaurants that offer fast-food”

(35.0%) and “at the restaurants that offer homemade food” (16.5%). The frequency and percentage (%) distributions of the students preferences when they eat out are given in Table 7.

Table 7. The frequency and percentage (%) distributions of the students preferences when they eat out

Food preferences	N	%
At the restaurants that offer homemade food	43	16.5
At the restaurants that offer fast-food	91	35.0
At the restaurants that offer gril, kebab, pide, döner etc	105	40.4
At the restaurants that offer international cuisine	9	3.5
Other	12	4.6
Total	260	100.0

The answer for the question “how often do you consume fast food? once or 3 to 5 times or more per week was calculated as 65.4%. The frequency and

percentage (%) distributions of the students consuming fast-food is given in Table 8.

Table 8. The frequency and percentage (%) distributions of the students consuming fast-food

Fast-food consuming frequency	N	%
3-5 or more times a week	86	33.1
Once a week	84	32.3
Once a 15 days	39	15.0
Once a month or less	36	13.8
Never	15	5.8
Total	260	100.0

The question “what do you think about the health hazards of fast-foods?” was answered as “I don't think it's harmful if not consumed so often” by the 43.8% of the students. On the other hand, 52.4% of the

participants found fast foods as “very harmful” or “harmful”. The frequency and percentage (%) distributions of students thought about the health hazards of fast-foods are shown in Table 9.

**Table 9.** The frequency and percentage (%) distributions of the students thought about the health hazards of fast-foods

Health hazards of fast-food	N	%
Very harmful	48	18.6
Harmful	88	33.8
I don't think it's harmful if not consumed so often	114	43.8
No harmful	10	3.8
Total	260	100.0

40.5% of the students described their speed of eating as fast. The frequency and percentage (%) distributions of students speed of eating is given in Table 10.

Table 10. The frequency and percentage (%) distributions of students speed of eating
Speed of eating

Speed of eating	N	%
Fast	105	40.5
Slowly	59	22.8
Normal	95	36.7
Total	260	100.0

The question “what kind of changes occur in your diet when you are sad, tired, happy or excited” was answered as “eat less” by 45.4% of the students. Moreover, 60.4% of the students replied that they use foods as a reward to themselves.

The frequency and percentage (%) distributions of daily water consumption are given in

Table 11. The question “what is your daily water consumption” was answered as “3 or less glasses of water”, “4-6 of glasses of water” and “6-8 of glasses of water” by 26.5%, 37.7% and 18.5% of the participants, respectively (Table 11).

Table 11. The frequency and percentage (%) distributions of daily water consumption

Amount of daily water consumptions	N	%
3 or less glasses of water	69	26.5
4-6 of glasses of water	98	37.7
6-8 of glasses of water	48	18.5
8-10 of glasses of water	20	7.7
10 or more glasses of water	25	9.6
Total	260	100.0

The frequency and percentage (%) distributions of “consuming plenty amounts of water are beneficial to health” are given in Table 12. However, 78.1% of the

students believed that consuming plenty amounts of water are beneficial to health.

Table 12. The frequency and percentage (%) distributions of the result of “consuming plenty amounts of water are beneficial to health?”

Consuming plenty amounts of water are beneficial to health?	N	%
Yes	203	78.1
No	57	21.9



Total	260	100.0
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The question “do you use vitamin and mineral supplements?” was answered as “no” with the ratio of 51.5% and “yes” with the ratio of 17.3%. The answer “others” was chosen by 67.6% of the students for the question who suggested the vitamin-mineral supplement that you are using. The other answers for

the same question were medical doctor (19.0%), dietitian (8.6%), and pharmacist (4.8%). The frequency and percentage (%) distributions of the results of “who suggested the vitamin-mineral supplement” are given in Table 13.

Table 13. The frequency and percentage (%) distributions of the results of “who suggested the vitamin-mineral supplements?”

Who suggested the vitamin-mineral supplements?	N	%
Medical doctor	40	19.0
Dietitian	18	8.6
Pharmacist	10	4.8
Other	142	67.6
Total	260	100.0

The question “what is your reason for using vitamin and mineral supplement?” was answered as “to be fit and healthy” (36.2%).

“Which cooking method you prefer for preparing foods” was answered with the ratio of 46.5% of the students as frying, followed by 20.4% as boiled in

water. However, 23.1 % of the students replied the question “which cooking method/ methods is/are useful in terms of the food value” was boiled in water, followed by 23.1% as boiled in steam. The frequency and percentage (%) distributions of food types consumed at main meals are shown in Table 14.

Table 14. The frequency and percentage (%) distributions of food types consumed at main Meals

Food types	N	%
Red meat	57	21.9
White meat	60	23.1
Legumes	51	19.6
Vegetables	60	23.1
Dough Products	32	12.3
Total	260	100.0

According to the results of this study, most of the participants preferred meat at main meals (45.0%) with 21.9% of red and 23.1% of white meat, while 19.6% of students took legumes, 23.1% of vegetables, and only 12.3% of dough products. Moreover, 45.4% of the participants preferred chicken instead of turkey, lamp, fish, cow and sheep meats.

Most of the participants preferred francala (49.2%), instead of flat bread, home made bread, yufka and whole grain, rye or bran breads (38.8%). It was also found that 11.9% of participants do not eat any kind of bread.

Vegetable and fruit consumption values have shown that 54.9% of the participants consumed only one fruit and 27.2% of them consumed two fruits per day.

While the most preferred drink as snack was determined as coca-cola (36%), followed by water (20.2%), ayran and milk (16.3%) and fruit juices (15.1%), respectively. The frequency and percentage (%) distributions of the drink preferences of the students are presented in Table 15.

**Table 15.** The frequency and percentage (%) distributions of the drink preferences of the students

Drink types	N	%
Concentrated fruit juice	39	15.1
Coca-cola	93	36.0
Ayran, milk	42	16.3
Fruit juice	32	12.4
Water	52	20.2
Total	260	100.0

Salt (sodium chloride) is a modifiable risk factor and although controversial, its relation with blood pressure and cardiovascular disease has been largely documented (He, Burnier, MacGregor, 2011). Excessive salt consumption concerns many countries, so World Health Organization has promoted a less than 6 g daily intake to prevent stroke and heart disease (World Health Organization, 2007).

The results of our study showed that most of the participants (77.7%) have less or one tea spoonful of salt per day. The ratio of participants consuming more than two and three spoonful of salt was only around 22.3%.

Most of the students replied the question about the amount of fat consumption as normal (48.8%) or less (28.1%). Sun flower oil and corn oil were chosen the most preferred oils with the ratio of 67.7%.

Discussions

People are accustomed with the habit of eating three meals in a day. In general breakfast meals consist of lighter food as compare to lunch and dinner. As time passes by, they have indulged themselves into loads of work. Eating habits help a person to perform work especially for the young ones who are studying. With the right quality and quantity of the food taken into our bodies, our mental and physical capacities can be enhanced. This can improve our health and thus avoid risks for certain diseases and illnesses.

In this study, results indicated that university students often skip meals, the most leaving out meal was lunch. Most of the students have irregular meals with two main meals per day. The majority of the participants eat vegetables and fruits ones or twice daily. As well, about half of the students eat fast foods three times per week. The frequency of consumption of milk and water among students were also under the necessary levels. Similar results were also determined by Orak, Akgün, Orhan (2006) in relation with skipping meals and their preferences for drinks. According to the literature (Sakamaki et al., 2005),

medical students (540) from Beijing University (135 men and 150 women) in Northern China and Kunming Medical College in southern China (95 men and 160 women) participated in a study and results indicated that habits involving regular eating patterns and vegetable intake were reported and represent practices that ought to be encouraged. The university and college arenas represent the final opportunity for the health and nutritional education of a large number of students from the educator's perspective. Their findings suggest the need for strategies designed to improve competence in the area of nutrition. According to the results of Lin, Cobiac, Skrzypiec (2002), similar consequences were reported. In that study was undertaken on a sample of 180 students pursuing different academic programs in a Malaysian university. It was concluded that future studies on a larger sample size may help to unravel the extent to which psychological factors influence eating behavior of students, and the underlying psychosocial basis for some of the gender differences reported in this study.

Conclusions

Our findings showed that more attention to the nutrition course should be given in Physical Education and Sports Training Schools. In addition to theoretical and practical courses, information applicable in everyday life must also be given to the students.

These habits need to be corrected using educational programs to promote healthy eating habits of university students and this topic must be supported by new studies.

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