Determining the Health-Exercise/ Physical Activity Levels of the Turkish University Students

Üniversite Öğrencilerinin Sağlık-Egzersiz/Fiziksel Aktivite Düzeylerinin Belirlenmesi

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ABSTRACT The purpose of this study was to determine the health-exercise/physical activity habits and consciousness level of School of Physical Education and Sports students and to compare the results with the results of those students at other faculties and departments. For this purpose, an 82-item questionnaire (31 of these items were related with personal information, 51 of them were related with exercise consciousness levels) developed by researchers was given to the students (n=91). The obtained data was analyzed by using the statistical package in order to get descriptive statistics and also comparisons were made in terms of department, gender and age. It was seen that students' exercise/physical activity habits and consciousness levels were not significantly different in terms of gender [t (89) =0.12, p>0.5] and age [t (89) =0.38, p>0.05] variables. Exercise/physical activity habits and consciousness levels of school of physical education and sports students were higher than the students of other departments [t (89) =3.55, p<0.05].

Key Words: Health; exercise/physical activity habit; university students

ÖZET Bu çalışmanın amacı, Beden Eğitimi ve Spor Yüksekokulu öğrencilerinin sağlık-egzersiz/fiziksel aktivite alışkanlıklarını ve bilinçlilik düzeylerini belirlemek ve diğer fakültelerdeki öğrenciler ile kıyaslamaktır. Bu amaç doğrultusunda, araştırıcılar tarafından geliştirilen 82 maddelik (31'i kişisel bilgilere, 51'i egzersiz bilinç düzeyine yönelik) bir anket ilgili öğrencilere (n=91) uygulanmıştır. Elde edilen verilerin istatistik paket programında betimsel (tanımlayıcı) istatistikleri yapılmış ve buna ek olarak bölümlere, cinsiyete ve yaşa göre kıyaslamalar yapılmıştır. Araştırma sonunda, öğrencilerin sağlık-egzersiz/fiziksel aktivite alışkanlıklarını ve bilinç düzeylerinin cinsiyete [t (89)=0.12, p>0.5] ve yaşa [t (89)=0.38, p>0.05] göre anlamlı bir fark göstermedikleri, beden eğitimi ve spor yüksekokulu öğrencilerinin ise sağlık-egzersiz/fiziksel aktivite alışkanlıklarının ve bilinç düzeylerinin diğer bölüm öğrencilerinden daha yüksek olduğu belirlenmiştir [t (89)=3.55, p<0.05].

Anahtar Kelimeler: Sağlık; egzersiz/fiziksel aktivite alışkanlığı; üniversite öğrencileri

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Health was being defined as not being ill in 1940's, but it was defined by the World Health Organization in 1947 as not only the absence of disease or injury but also physical, social and psychological well-being.[1,2] While 67% of the deaths were caused by heart disease, cancer and stroke in the United States of America, it was proven that the basic reasons for these deaths were related to life styles of the individuals and they were caused by being away from health consciousness.[3-5] In Turkey, the mortality rates are related to heart diseases (42%) and cancer related dis-

eases (11%).[6] It has been proven by most studies that healthy life styles, including regular exercise, nutrition and stress management have a preventive role for these diseases while lack of healthy life styles are related to increased rates of cardiovascular and psychosomatic disease incidence.[4,7-11] The university campuses, where the youngsters are prepared to take social responsibilities in the future, are the places of anxiety and stress. For this reason, it is important to determine the university students' health status and life styles.

Modern technology has decreased many daily work loads of physical activity such as, mowing the grass, going to work, cleaning the house and doing the dishes. Once, the effort necessary to do one-hour work is performed nowadays by simply pushing a button in a few seconds. As a result, it seems like people have more time to do leisure activities. However, many of those leisure activities are the ones that do not require physical effort.[12-17]

Even though the human body is designed for movements that require effort, exercise is not a typical part of life. If someone does not use his/her body properly or misuses it, the human body cannot stay healthy for a long time and cannot function at a high level. Thus, the absence of physical activity has caused hypo kinetic diseases such as, obesity, high blood pressure, cardio-vascular diseases and diabetes.[14] The incidence of cardiovascular diseases is related to obesity by statistically and physiologically. For example, risk of death an obese person has is 2.5 times higher than someone who has an average or below average body weight. Obese individuals have a higher rate of developing diabetes and hypertension.[18] This should also be pointed out that immobility and cigarette smoking which are pretty common in modern life, lead to the development of lung diseases.[19]

The most effective way and defense against the development of hypo kinetic diseases is to work the muscles, bones, joints, heart and inner organs with a systematic exercise program.[12,13] The role and the importance of exercise and sports in international area are being increased every day and because of their benefits, exercise and sports are gaining the function of important social phenomena. A good way of utilizing the leisure times for the university students is sports activities and regular exercise. Those university students who exercise regularly and participate in sports will have well-developed personality and will also develop the consciousness of taking social responsibilities and duties.

The basic purpose of exercise, physical education and sports activities is to help students to gain the habit of regular exercise. In this respect, to encourage the students who did not participate in any sports before starting the university and to provide the environment to those students who did sports before they started the university are pretty important. However, it can be discussed whether the exercise and physical education and sports activities being performed are enough to reach those goals at the universities. Regular exercise has an important role in creating healthy and dynamic societies. For this reason, regular exercise and sports are being scientifically evaluated by all the countries.[7,9-11]

Before the university students are directed towards physical activity and sports, it would be proper to determine their habits of health, exercise and physical activity and their consciousness levels related to these topics. This investigation has been carried out to reach this mentioned goal.

MATERIAL AND METHODS

SUBJECTS

The subjects of the investigation are a total of 91 students (39 females, 52 males) who were students at Ankara University in 2006-2007 academic year. The ages of the students ranged from 20 to 25 and 26 to 30. Forty-five of them were the students of School of Physical Education and Sports (PES) and the rest of them (n=46) were the students of other faculties (Pharmacy, Education, Engineering, Science, Agriculture, Law). Personal data about the subjects are given in Table 1.

COLLECTING DATA

In order to form the questions in the "Health-Exercise/Physical Activity consciousness level" questi-

onnaire, related literature was searched and opinions of the field experts were obtained. At first, a 90-item pool was formed. This form was given to 5 field experts and the number of items was decreased to 51. The Questionnaire was made up of a total of 82 items, 31 of them related to personal information and 51 of them related to exercise consciousness level. These items related to exercise consciousness levels were applied with the responses of "1: no idea, 2: heard of it, 3: I know very well". Cronbach alpha internal consistency was used to calculate the reliability of the points of 51 items related to exercise consciousness levels and alpha values was .95. The questionnaire was given to the students personally by the investigators at the beginning of the lesson.

ANALYSIS OF DATA

Obtained personal data was taken as descriptive statistics while the data related to health-exercise/physical activity habits and consciousness levels of two groups were analyzed with independent samples t-test. Statistical significance was accepted at $p< 0.05$.

RESULTS

In this part, data related to physical measurements, nutrition, exercise habits, stress status, age, gender and the comparison related to the departments are given.

I. DATA RELATED TO PHYSICAL MEASUREMENTS, HABITS AND STRESS STATUS OF THE STUDENTS

The results related to physical and physiological measurements of the students are given in Table 2.

As can be seen in Table 2, 37 totally female subjects who responded the questionnaire had an average body weight of 56.37 kg and average height of 162 cm., while a total of 51 males who responded the questionnaire had an average body weight of 75.08 kg and average height of 173 cm. Female students had an average heart rate of 72.13 beats/min. and an average systolic/diastolic blood pressures of 113.3/71 mmHg., while male students had an average heart rate of 70.29 beats/min. and systolic/diastolic blood pressures of 133.1/76.5 mmHg. The drink habits of the students are given in Table 3.

TABLE 1: Personal data about the subjects.

	Women			Men	
	n	%		n	%
Age			Age		
20-25	37	94.9	20-25	37	71.2
26-30	2	5.1	26-30	15	28.8
Total	39	100	Total	52	100
Department			Department		
PES	15	38.5	PES	30	57.7
Other	24	61.5	Other	22	42.3
Total	39	100	Total	52	100

TABLE 2: Results related to physical and physiological measurements of the students.

	Female			Male		
	n	X	Sd	n	X	Sd
Body Weight (kg)	37	56.37	7.73	51	75.08	11.46
Height (cm)	37	162	18.56	51	173	28.19
Heart Rate (beats/min)	15	72.13	7.71	34	70.29	23.27
Systolic Blood Pressure (mmHg)	18	113.3	1.32	29	133.1	11.65
Diastolic Blood Pressure (mmHg)	19	71	1.52	29	76.5	2.04

TABLE 3: Data related to drink habits of the students.

Drink Habits	n	%	Daily	n	%
Do you drink alcohol?					
Yes	33	36.3	1 bottle bear	24	26.4
No	55	60.4	1 glass wine	5	5.5
No response	3	3.3	1 glass raki	4	4.4
Do you smoke cigarettes?					
Yes	21	23.1	1 package	11	12.1
No	69	75.8	more than	10	11
No response	1	1.1	1 package		
Do you drink coffee?					
Yes	67	73.6	1 cup	22	24.1
No	23	25.3	2-3 cups	18	20
No response	1	1.1	4 cups	27	29.5
Do you drink tea?					
Yes	79	86.8	1-3 cups	44	55.6
No	11	12.1	4 cups and more	35	31.2
No response	1	1.1			
Do you drink cola?					
Yes	67	73.6	1-3 glasses	31	34
No	22	24.2	4 glasses and more	36	39.6
No response	2	2.2			

TABLE 4: Data related to nutritional habits of the students.

Nutritional Habits	n	%
Do you have breakfast regularly?		
Yes	56	61.5
No	35	38.5
No response	-	-
Do you have fast food at least one time in a week?		
Yes	74	81.3
No	16	17.6
No response		
Do you have fish at least once a week?		
Yes	42	46.2
No	48	52.7
No response	1	1.1
Do you consume red meat?		
Yes	84	92.3
No	7	7.7
Do you drink water regularly?		
Yes	91	100
No	-	-
Do you think you are overweight?		
Yes	35	38.5
No	55	60.4
No response	1	1.1
What do you do to lose weight?		
Do exercise	32	91
Diet	22	63
Skipping meals	5	14
Fastening	2	6

As can be understood from Table 3, 36.3% of the students drink alcohol, 23.1% of them smoke cigarettes, 73.6% drink coffee, 86.8% drink tea and 73.6% of them drink cola. Nutrition habits of the students are given in Table 4.

According to Table 4, 61.5% of the students have regular breakfast, 100% of them drink water regularly and 46.2% of them eat fish at least once a week. On the other hand, 81.3% of them eat fast food type of meal at least once a week and 92.3% of them eat red meat. 38.5% of the students stated that they are overweight and for this reason they exer-

TABLE 5: Data related to television and computer habits of the students.

Television – Computer Habits	n	%
How many hours a day do you watch television?		
1-3 hrs.	53	58
4-5 hrs.	19	21
6 hrs. and over	17	13
No response	2	8
How many hours a day do you use computer?		
1-2 hrs.	49	54
3 hrs. and over	31	34
No response	11	12

TABLE 6: Results related to exercise habits of the students.

Exercise habits	n	%	Weekly	n	%
Do you exercise regularly?					
Yes	56	61.5	3 times	28	30.75
No	35	38.5	4 & more	28	30.75
			monthly		
			in 0-3 months	13	14.3
			in 4-7 months	13	14.3
			in 8 month & more	30	32.9
What types of exercises do you do?					
Jogging-walking	45	80	1-2 times	11	24.0
			3 & more	34	76.0
Swimming-fitness-biking	11	20	1-2 times	7	64.0
			3& more	4	36.0
How long do you exercise?					
0-45 minutes	17	30			
46-90 minutes	33	59			
91 minutes and more	6	11			

cise and go on a diet. The results related to their television and computer habits are given in Table 5.

58% of the students watch television 1-3 hours a day while 54% of them use computers 1-2 hours a day. The exercise habits of the students are given in Table 6.

Most of the students (62%) stated that they exercise regularly, especially go jogging-walking (80%) and the duration of exercise is between 46-90 minutes (59%).

The results related to stress status and stress management methods of the students are given in Table 7.

Most of the students (62%) stated that being a student is stressful and they often feel themselves tense/stressful (53%), tired (60.4%) sleepy. On the other hand, 34% of them stated that they have stress management strategies, the first of which is exercise.

TABLE 7: The results related to stress status and stress management methods of the students.

Stress status and stress management methods	n	%
Do you think the students have stress?		
Yes	56	61.5
No	32	35.2
No response	3	3.3
Do you often feel yourself tense and stressful?		
Yes	48	52.7
No	43	47.3
Do you have regular sleep?		
Yes	52	57.1
No	39	42.9
Do you often feel yourself tired?		
Yes	55	60.4
No	36	39.6
Do you have a stress management technique?		
Yes	31	34.1
Doing exercise	18	19.8
Other (alcohol, praying, music, book, trip, shopping, sleep)	13	14.3
No	57	62.6
No response	3	3.3

II. HEALTH-EXERCISE/PHYSİCAL ACTIVITY HABITS AND CONSCIOUSNESS LEVELS OF THE STUDENTS' DESCRIPTIVE STATISTICS AND COMPARISONS OF THE VARIABLES

Descriptive statistics of the students' health-exercise/physical activity habits and consciousness levels are stated in Table 8.

Except the items 49, 50 and 51, the mean of all items are above average. This means that the students are aware of the benefits of exercise/physical activity. As a matter of fact, the consciousness levels of the students related to the benefits of exercise/physical activity are high.

TABLE 8: Mean values of health-exercise/physical activity habits and consciousness levels of the stunedts (n=91).

Regular Exercise/Physical Activity	x	Sd
1. Helps to reduce body weight, especially body fat.	2.83	.42
2. Develops body posture (stance) and physical appearance.	2.80	.45
3. Helps you to relax.	2.80	.45
4. Helps to prevent back ache and stomach fat and when they develop, helps to get rid of them.	2.78	.48
5. Helps heart, respiratory, circulatory and digestive systems work regularly and more productive.	2.76	.42
6. Improves the quality of life significantly (environmental sensitivity, being happy, etc.)	2.75	.50
7. Develops balance and coordination.	2.73	.51
8. Helps to develop general health consciousness.	2.72	.54
9. Generally affects your psychology positively.	2.67	.55
10. Prevents developing arteriosclerosis by diminishing the levels of lipids, cholesterols and low density lipoproteins.	2.65	.54
11. Reduces the risk of heart disease.	2.64	.54
12 Helps to have new friends and to socialize.	2.63	.69
13. Develops your muscles to receive oxygen from the blood and to utilize it.	2.61	.61
14. Increases the effectiveness of intelligence by increasing the oxygen flow to brain.	2.60	.63
15. Helps you for your muscle balance .	2.56	.60
16. Improves oxygen diffusion from lungs to blood.	2.55	.65
17. Improves the work of your immune system.	2.54	.62
18. Helps us to get a better, easy and good quality sleep.	2.53	.62
19. Improves your self confidence.	2.52	.67
20. Improves your resistance to injuries.	2.51	.69
21. Increases maximal oxygen uptake (the best measure of body work capacity).	2.49	.68
22. Helps to organism to utilize fats as energy sources during physical activity.	2.49	.62
23. Increases your productivity at work and decreases absence from job.	2.49	.65
24. Helps you to recover from extreme fatigue.	2.48	.67
25. Eliminates the negative effects on bone health and improves bone density.	2.46	.71
26. Contributes to the decreased incidence of heart dysrhythms.	2.45	.65
27. Helps you to exercise more intensely and longer without getting tired (without collecting lactic acid) by increasing the anaerobic threshold.	2.45	.72
28. Helps skin nutrition by improving the blood flow to it.	2.41	.70
29. Helps you to have a life style on your own without depending on others.	2.41	.79
30. Develops coroner arteries which feed the heart muscle.	2.38	.69
31. Helps you to manage stress more effectively.	2.38	.68
32. Decreases heart beats (pulse) at the maximal levels.	2.37	.69
33. Develops group thought, interpersonal relationships, and the concept of mutual respect.	2.36	.74
34. Decreases the risk of osteoporosis.	2.36	.72
35. Helps and improves your resistance against drug abuse .	2.34	.73
36. Helps you to get rid of depression.	2.33	.70
37. Decreases the risk of hypertension (high blood pressure).	2.30	.71
38. Increases the resistance of organism against upper respiratory problems.	2.29	.67
39. Contributes to lean body tissue.	2.29	.79
40. Helps the healing of general disorders during pregnancy (for example headache, stomach burn, constipation)	2.25	.74
41. Increases your chances of staying alive if you have a heart attack (myocardial infarction).	2.24	.70
42. Contributes the decrease of resting heart rate.	2.21	.80
43. Develops sexual desire (lipido), performance, and satisfaction.	2.21	.85
44. Eases adaptation to the conditions of cold and hot weather.	2.20	.78
45. Increases stroke volume (the amount of blood pumped at each beat of the heart muscles).	2.20	.79
46. Decreases the level of anxiety.	2.16	.79
47. Increases good cholesterol (HDL).	2.14	.81
48. Develops glucose (sugar) tolerance.	2.04	.74
49. Helps to ease light headaches.	1.98	.73
50. In type I (insulin dependent) diabetes helps to lowering insulin by controlling blood sugar level.	1.94	.83
51. Decreases the risk of constipation and colon cancer.	1.79	.82

The health-exercise/physical activity habits and consciousness levels of the students were compared in terms of age, gender and department. There was no significant difference in terms of age (t 89) = 0.38, p>0.05) and gender (t (89) =0.12, p>0.5). On the other hand, when the data related to the health/exercise/ physical activity habits and consciousness levels of the PES students and the other students are compared, PES students revealed higher scores (t (89)=3.55, p<0.05) than the other students. T-test results in terms of department variable are given in Table 9.

TABLE 9: T-Test results in terms of department variable.

Department	n	x	Sd	Df	t	p
PES	45	130.91	16.72	89	3.55	0.001
Others	46	117.80	18.36			

p< 0.05

CONCLUSION AND RECOMMENDATIONS

This study was carried out to determine the health, exercise and physical activity and consciousness levels of the students. It was concluded that 36.3% of the students had alcohol, 23.1% of them smoked cigarettes, 81.3% of them had fast food habits, 92.3% had red meat and 52.7% of them did not have fish even once a week. 38.5% of the students stated that their body weights were high and they did exercise and go on a diet to lose weight. 58% of the students watched television 1-3 hours a day while 54% of them spent 1-2 hours with the computer. On the other hand, 61.5% of the students had regular breakfast and exercise and consumed water regularly on daily basis. These results showed that the students did not display a consistent behavior about health and nutrition and their behaviors were related to the previous habits they had before the university years.

When the stress status of the students were examined, it was seen that 60.4% of them felt tired, 52.7% of them felt themselves tense-stressful, and besides that only 34.1% of them had strategies to manage stress. Among these strategies, regular exercise took the first place. It is obvious that programs should be designed for the university students to educate them for increasing their consciousness levels.

When the health-exercise/physical activity habits and consciousness levels of the students were compared in terms of age, gender and departments, no significant differences in terms of age and gender were observed. On the other hand, when the data was analyzed in terms of departments, it was concluded that health-exercise/physical activity habits and consciousness levels of the PES students were higher than those students in the other departments. These results suggest the importance of selective physical education courses in increasing the consciousness levels of the students in the other departments. In these courses, the importance of fitness and nutrition habits, also stress management by means of physical activity should be emphasized.

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