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Full Length Research Paper

An investigation into university students' physical activity levels: Case of Amasya

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ABSTRACT

The purpose of this study was to determine and assess the physical activity levels of university students. A total of 762 healthy students (410 of whom were female, and 352 of them were male) studying at departments in Amasya University participated in the study on a voluntary basis. The data in this paper were collected through the Pyhsical Activity Assessment Questionnaire (PAAQ). All data on the physical activity levels of the participants were analyzed via descriptive statistics, such as frequencies and percentages, while the correlations on the physical activities and Body Mass Index (BMI) were evaluated by means the Pearson Correlation Analysis method. Following the analysis, it was found that 63.6% of students perform physical activity for 2-4 hours daily, whereas 31.8% spend 5-8 hours daily, doing physical activity. The so-called activities were found as: 46.5% several walks, 36.2% house chores, 41.7% different hobbies, 14.2% jogging, and 21.8% sports activities. Further, it was concluded that as the number of the days of physical activity increases, the BMI statistically significantly decreases ($P<0.05$), but the duration for house chores increases, the BMI statistically significantly increases ($P<0.01$). Additionally, there was a linear correlation between physical activity and house chores and hobbies ($P<0.01$). Based on the findings, it can be noted that the majority of the students in Amasya University are engaged in physical activity, but the activities are generally found as walks, hobbies, and house chores.

Keywords: Physical activity, university students, body mass index.

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INTRODUCTION

Physical activity is defined as any body movement that results in energy consumption, and the level of physical activity is considered to be closely associated with lifestyle. The level of physical activity is impacted by several factors, including daily working conditions, tools and equipment used, leisure time and way of transportation, geographical region, climate and weather conditions (Cengiz and Delen, 2019; Tunc and Isler, 2007). The World Health Organization (WHO) (2020) draws attention to the importance of physical activity in terms of cardiovascular health and muscle fitness, protecting bone health, noninfectious diseases, and decreasing the risk of depression.

In a study published by WHO (2020) on physical activity for health in developing countries, it has been highlighted that physical activity is of vital importance in preventing and controlling noninfectious diseases, and that appropriate programs, policies and rules are needed in the implementation of physical activities in developing countries. Further, it has been stated that there are a few studies which can be performed on physical activity in these countries. Additionally, physical activity is beneficial for health at all ages, and regular physical activity has an important role in the healthy growth, development, socialization of children and young people and getting rid of unwanted bad habits. It is also important in protecting adults from various chronic diseases, in the treatment and support of the treatment, and in helping the elderly have an active old age. For this reason, it has an incontrovertible priority in increasing the quality of life, leading to important affirmative differences regarding physical, mental and psychological health, increasing the level of knowledge of the society and gaining awareness on regular habit of physical activity to individuals (Baltacı,

2008; Cengiz and Delen, 2019).

A lifestyle which lacks physical activity in daily routine has an important place in terms of injury, illness and death. A lifestyle devoid of physical movement, especially obesity may lead to muscular weakness, high blood pressure, osteoporosis, joint calcification and loss of function, diabetes and cancers. In addition, there may occur coronary risk factors, a decrease in bone mineral density, a decrease in respiratory capacity due to decreased elasticity of the rib cage, digestive and excretion difficulties due to weakening of the abdominal muscles. What is more, there are some health problems such as endurance disorders, easy injury, diabetes and fat deposition, obesity and disfigurements, anxiety and depression, due to the loss of function due to the loss of function in basic motoric features such as strength, strength and flexibility in all muscles (Aydin and Yaliz Solmaz, 2016; Cengiz and Delen, 2019). Therefore, each adult must do moderate or more physical activity for at least 30 minutes every day of the week.

In past research on the participation in lifelong physical activity, it has been concluded that the engagement rates in physical activities have decreased especially based on age. It is reported that the age groups in which this decline is most prominent are the adolescence process, high school, and university periods (Anderssen et al., 2005). It is important for university students, who make up the majority of the young population, to gain healthy living and physical activity habits both in terms of protecting their health and being an example to future generations (Şahin et al., 2017).

In this study, it was attempted to determine the physical activity levels of university students with the purpose of creating an awareness of the university students in order to lead a healthy, peaceful and successful life in the future.

MATERIALS AND METHODS

Participants

A total of 762 healthy students (410 of whom were female, and 352 of them were male) studying at departments in Amasya University participated in the study on a voluntary basis.

Data collection

Physical Activity Assessment Questionnaire (PAAQ) was employed to obtain the data (Karaca, 2000). Official permission was obtained from the Rectorate of Amasya University in order to be applied in faculties and schools. The questionnaires were applied to the students in all departments in classrooms, sports fields and canteens. It has been carried out to the side of the participants when completing surveys.

Data analysis

All data on the physical activity levels of the participants were analyzed via descriptive statistics, such as frequencies and percentages, while the correlations on the physical activities and Body Mass Index (BMI) were evaluated by means the Pearson Correlation Analysis method. The level of significance was set at 0.05.

RESULTS

When the weekly physical activity levels of the research group are examined, it is seen that 12.3% of them performed physical activity for 2 days, 9.4% of them for 3 days, 44.9% of them for 4 days and 26.8% of them for 5 days (Table 1).

As shown in Table 2, 63.6% of students are engaged in physical activity 2-4 hours daily, and 31.8% in 5-8 hours daily.

46.5% of the research group mainly do walking, 36.2% house chores, 41.7% hobbies, 14.2% jogging and 21.8% doing sports activities (Table 3).

As shown in Table 4, it is seen that 74% of the study group mostly participate in physical activity for 2 to 8 months in a year.

When Table 5 is examined, Body Mass Index (BMI) decreases significantly ($P < 0.05$) as the number of physical activity days increases, but Body Mass Index increases significantly ($P < 0.01$) as the time allocated for house chores increases, It is seen that there is a statistically significant ($P < 0.01$) linear relationship between physical activity and house chores and hobbies.

Table 1. Participants' daily physical activity distributions

Day	*N*	%
2	100	12.3
3	77	9.4
4	366	44.9
5	219	26.8
Total	762	93.3

Table 2. Participants' physical activity durations.

Hour	*N*	%
2-4	519	63.6
5-8	243	31.8
Total	762	94.4

Table 3. Participants' physical activity distributions.

Activities	*N* = 762	%
Walking	354	46.5
House chores	276	36.2
Hobbies	318	41.7
Cycling	35	4.6
Running	108	14.2
Aerobic	30	3.9
Exercise	166	21.8

Table 4. Participants' physical activity distributions (monthly ıntervals).

Months	n	%
1	22	2.7
2	98	12
3	100	12.3
4	112	13.7
5	85	10.4
6	52	6.4
7	84	10.3
8	80	9.8
9	31	3.8
10	23	2.8
11	3	0.4
12	1	0.1
Total	691	84.7

Table 5. The distribution of the relationship between the number of physical activity days, participation in physical activity, doing house chores, participation in hobbies, and Body Mass Index (BMI).

Variable	BMI		Number of days		Activity		House chores		Hobbies	
	n	r	n	r	n	r	n	r	n	r
BMI	762	1	762	-.077*	693	.105**	762	.109**	233	.097
Number of days	762	-.077*	762	1	693	.042	762	-.048	233	-.010
Activity	693	.105**	693	.042	693	1	693	.148**	223	.195**
House chores	762	.109**	762	-.048	693	.148**	762	1	233	.037
Hobbies	233	.097	233	-.010	223	.195**	233	.037	233	1

*(P < 0.05); **(P < 0.01).

DISCUSSION

It is of great importance to delve into physical activity accurately and reliably in order to prove the effects on health (Vanhees et al., 2005). In many countries, it is a crucial problem that physical activity cannot be performed regularly and satisfactorily. Therefore, increasing the active lifestyle is an important component of national and international public health recommendations.

In a study conducted on students studying in the Faculty of Sport Sciences of Istanbul University, it was concluded that the physical activity levels of the students were generally sufficient (Sahin et al., 2017). In another study conducted on students studying in the Faculty of Sports Sciences, between physical activity levels, and its relations with other variables investigated and it was found that the students' physical activity levels were at a sufficient level. In the same study, 59.1% of the students stated that they participated in a sufficient level of physical activity and 40.9% of them participated in low level physical activity or were not active (Aydin and Yaliz Solmaz, 2016). In addition, in a study by Savci et al. (2006), the levels of physical activity of university students were found to be significantly low and it was suggested that the required support, education and opportunity must be given to increase physical activity levels for the protection and improvement of health. In this study, it was emphasized that only 18% of the students performed physical activity at a sufficient level, 68% of the students had low physical activity level and about 15% of them did not had any physical activity. In the study by Olçüçü et al. (2015) on university students, it was revealed that 36% of the students were physical active at a satisfactorily level, 43% were at a low level and 21% were not physically active, and it was found that the majority of the students were not physically active. In another study report in which 5cases were examined together, 51% of university students were found to have inadequate physical activity (Martin et al., 2000). Serel Arslan et al. (2018), in a study in which young people were investigated in terms of the effect of physical activity on academic achievement and depression, only 15% of young people attending undergraduate education were reported to be active at satisfactorily level and over 52.1% were defined as various levels of depression. In this study, 63.6% of the students are in 2-4 hours daily, 31.8% in 5-8 hours daily physical activity (Table 2), 46.5% of the activities are several walks, 36.2% different

house chores, 41.7% of different hobbies, 14.2% of running and 21.8% of some sports activities (Table 3). Although the frequency of the physical activity is low in this study, it can be noted that the students are physically active and are at the level of physical activity that can be considered sufficient. Although there was participation in low-intensity physical activities, this study is supported with the studies of Sahin et al. (2017) and Aydin and Yaliz Solmaz (2016), but do not match with the findings previous studies. In general, the physical activity levels of the students in the Faculty of Sport Sciences, one of the research groups in the literature, are observed to be high. The fact that these students have applied lessons in their curriculum, have the opportunity to do physical activity and participate in sports activities can support their physical activity levels to be at a sufficient level. According to the literature, it is seen that the students studying in the Faculty of Sport Sciences are better when compared the students studying in other faculties. In this study, as the day and duration of physical activity of university students increases, Body Mass Index decreases significantly ($P < 0.05$), but as the time allocated for house chores increases, Body Mass Index increases significantly ($P < 0.01$). It was concluded that there was a significant ($P < 0.01$) linear relationship between the house chores and hobbies (Table 5). This shows that mostly physical time is spent for house chores and hobbies are considered as physical activity. However, it may not be sufficient as an activity only household chores and hobbies in terms of health protection (Bek, 2008).

It has been stated by WHO (2020) that physical activity in adults between the ages of 18-64 encompasses leisure activities such as walking, playing, dancing, gardening, walking, swimming, transportation activities such as walking or cycling, professional and business activities, house chores, several sports games, daily is stated as sports or planned exercises in the context of family and community activities. In a study, it was determined that most energy is consumed by sleeping and the energy consumption by doing physical activity is in the fourth place and if it is not considered, health problems may be encountered in the later stages of life (Vaizoglu et al., 2004). In this study, 46.5% of the research group is walking, 36.2% are house chores, 41.7% are hobbies, 14.2% are jogging exercises and 21.8% are doing sports (Table 3). This result was found to be more time spent on house chores and hobby rather than physical activity of students and display similarities with the findings of this research.

Although it is suggested in the guide of American Sports Medicine Association (ACSM) and the American Dietetic Association guideline to perform moderate intense activity at least for 30 minutes of during adulthood (Perin et al., 1995; Driskell et al., 2005). On the other hand, in the studies by Savcı et al. (2006) on physical activity levels of university students and by Hallal et al. (2003) on the Brazilian adults, it was concluded that there is no significant a relationship between BMI and physical activity and inactivity in their research. In this study, as the day and duration of physical activity of university students increases, BMI decreases significantly; however, as the time allocated for house chores increases, BMI increases significantly ($P < 0.01$). It is significant between activity, house chores and hobbies ($P < 0 .01$). It was observed that there was a linear relationship (Table 5), and this result was determined by Pate et al. (1995); Driskell et al. (2005) corroborated with the study results, but Savci et al. (2006) and Hallal et al. (2003) did not find similar findings. In general, factors such as the economic situation of university students and the lack of awareness due to insensitivity to physical activity appear in the cities they study.

In conclusion, it can be noted that the most of the university students in Amasya have enough physical activity, but the activities are mostly in the direction of walking, hobby and house chores. It is suggested that researchers on examining health and physical activity must delve into effective education-training approaches in increasing the physical activity behaviors and motivation of all students.

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