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Original article

YOUNG PEOPLE AND LEISURE-TIME SPORT ACTIVITIES

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Abstract

Objective The aim of the study was to investigate the sport activity level during the leisure-time and the body mass index of the young people.

Methods The work is a non-experimental study. It is a pilot study applied to some groups of high school and college students. The measurement research instruments used for the study were physical activity index and body mass index. In order to find out the physical activity index we applied the survey with three parameters (intensity, lasting and frequency) with four-five levels, quantified by figures and applied in a formula. The final score characterizes physical activities and fitness category of the subjects. An other instrument used is body mass index, that is a measure of relative weight based on an individual's mass and height. The samples of study were three groups of subjects, males and females: the first is high school students aged 16-19; the second group is college students aged 20-25 and the third group is college students 26-30 years old. The total number of subjects is 165.

Results The results indicate the average scores 40-60 points for 21-25 years male category. The other categories of gender and age scores are included at 20-40 points. Calculated body mass index is about 18.8-25 kg/m² for males, age 16-25 years and females aged 21-25. For the others subjects the body mass index is 25-30 kg/m².

Conclusions Most subjects had an inadequate physical activity that means sedentary persons with poor fitness. Almost the same majority is slightly overweight.

Key words: young people, leisure-time sport, physical activity index, body mass index.

Introduction

The health benefits of physical activity are widely recognized. The literature provides information about the implications of different age and gender population groups in physical activities. Global recommendations of World Health Organization on physical activity for health for adults aged 18-64, includes leisure time physical activities that improve cardiorespiratory and muscular fitness and bone health. People should do at least 150 minutes of moderate intensity aerobic activities throughout the week.

Regular physical activity for young people improves health and fitness as strength and endurance, helps growing up with healthy bones and muscles, helps control weight and increases self-esteem. Overweight and obesity, which are influenced by physical inactivity and poor diet, can increase one's risk for diabetes and poor health status. Guidelines recommend that all young people should participate in physical activity, of at least moderate intensity daily. Children and young people aged 5-18 need to maintain a basic level of health practicing at least 60 minutes of physical activity every day. Physical activity should be moderate to intensity activity that means working hard enough to raise heart rate and break a sweat.

Physical inactivity is an important health risk factor. Health is related with factors of people who are

inactive.

According to Bota (2006) population must be educated to turn to account free time in their own benefit. Thus, education becomes leisure education component of integrate education. Education is based on deep positive people's psychology.

Physical activities practiced rhythmic high or moderate intensity related with decreased importance of psychological tension. Aerobic activities last 15-45 minutes are effective means of lowering a psychological tension Roman, Rusu (2008).

Since 1982 Baecke and colleagues said that evaluation of physical activity is often found to be important in reach out healthy especially in the area of cardiovascular disease and obesity. They showed that level of education was positively related to the leisure-time index in both sexes. The subjective experience of work load was inversely related to the sport index, and the leisure-time index in both sexes. The lean body mass was positively related the work index, and the sport index in males, but was not related to the leisure-time index in either sex. These differences in the relationships support the subdivision of habitual physical activity into the three components (intensity, duration, frequency).

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Methods

The work is a non-experimental study. It is a pilot study applied to some groups of high school and college students. The measurement research instruments used for the study were physical activity index and body mass index. In order to find out the physical activity index (PAI) we applied the survey with three parameters (intensity, lasting and frequency) with four-five levels, quantified by figures and applied in a formula (Intensity x Duration x Frequency = Score Total).

The final score characterizes physical activities and fitness category of the subjects.

Another instrument used is body mass index (BMI), that is a measure of relative weight based on an individual's mass and height (kg/m²). The samples of study were three groups of subjects, males and females: the first is high school students aged 16-19; the second group is college students aged 20-25 and the third group is college students 26-30 years old. The total number of subjects is 165 (table 1).

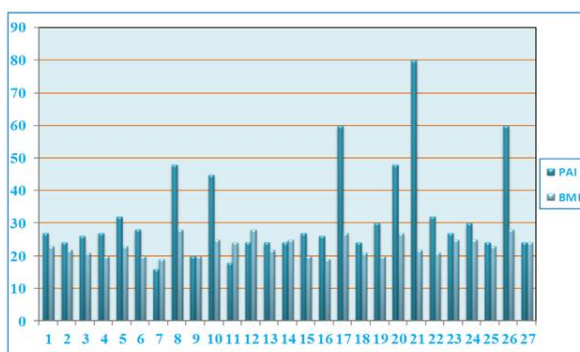
Table 1 Subjects on pilot study

Groups/Gender	Males (n)	Females (n)
Group 1 (16-19)	27	-
Group 2 (20-25)	26	-
Group 3 (26-30)	22	-
Group 4 (16-19)	-	33
Group 5 (20-25)	-	31
Group 6 (26-30)	-	26

Results

In graph 1 it is presented the group regarding the physical activity index and body mass index for young males aged 16-19. The average value of this parameter is 32.40 that means a evaluation at not good enough activity score. The best personal value of PA Index is

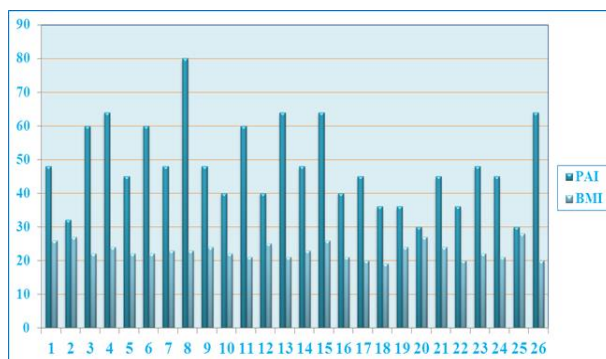
80 and the lowest personal value is 16. Regarding the level for body mass index the average value is 23.03. This shows a normal weight for the young males 16-19 year old. The maximum value of BMI is 23.03 and the minimum value BMI is 16.



Graph 1 Physical Activity Index & Body Mass Index for Group 1

In graph 2 there are the results for group 2 males 20-25 year old. We notice an average of 48.30 units for PA Index that represents an acceptable evaluation score. The values range goes between minimum 30

units and 80 units for group 2. The BMI average shows 22.96 a normal value for healthy people. The maximum value of BMI is 28 units and the minimum value is 19 units.

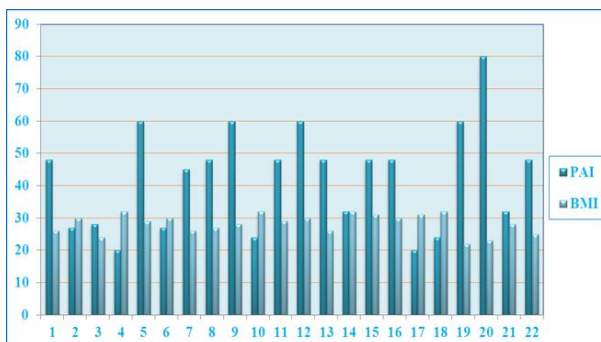


Graph 2 Physical Activities Index & Body Mass Index for Group 2

In graph 3 there are represented the personal values for group 3 of males 26-30 years old. The PH Index range of values extend from the lowest value 20 units up to the highest value 80 units. The average value for

that age is 42.50 units that shows acceptable evaluation score for whole group. Regarding BMI the average of the group is 28.31 units that means overweight

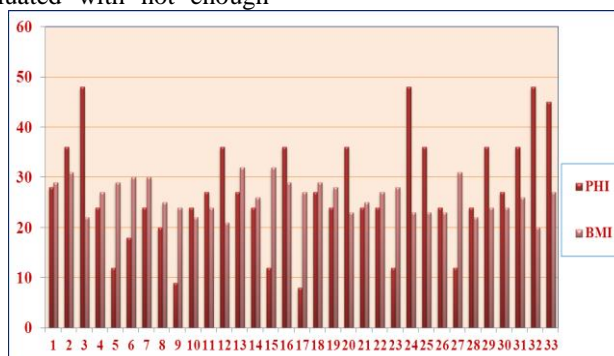
category of young males people. The range of values runs from 22 up to 32 units.



Graph 3 Physical Activities Index & Body Mass Index for Group 3

In graph 4 there are individual values of the group 4 females aged 19-20. The average value of PH Index is 27.15 units. The range of values for this parameter is large and goes from the lowest 8 units up to the highest 48 units. The group is evaluated with not enough

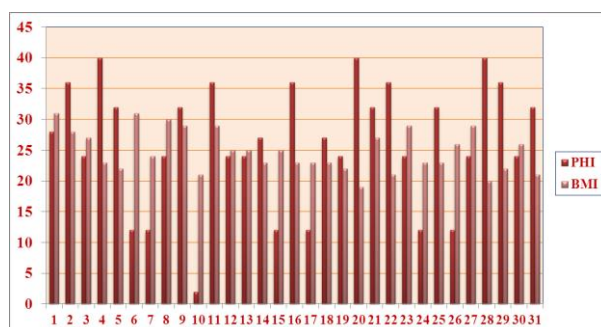
activity score. Looking at the BMI values of we find a range from 32 units to 40 units, with an average values of 26.15, that means a group with overweight near by the beginning of the range.



Graph 4 Physical Activities Index & Body Mass Index for Group 4

The graph 5 presents the individual values for two parameters of subjects aged 20-25. The PH Index average is 26.06 with a large range of values from 2 up to 40 units. The evaluation shows a not enough activity score. Looking at BMI we find out an average of 24.83

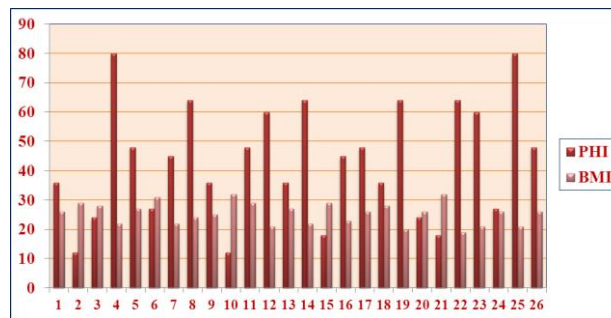
that places the group of young females 20-25 at normal category of weight, very close to overweight category. The range of BMI values goes from 19 up to 31 units scores.



Graph 5 Physical Activities Index & Body Mass Index for Group 5

The graph 6 presents the results for group 6 of females aged 25-30. The range of individual PAI values is very large and score goes from 12 to 80. The PAI average value is 43.23 that places the young females at the score evaluation of acceptable but could

be better. The BMI amplitude goes from 19 to 32 and the calculated average value is 25.46 units, that indicates an overweight category for young females aged 25-30.



Graph 6 Physical Activities Index & Body Mass Index for Group 6

Discussions

There is growing concern on physical inactivity in young adults. Experts are interested on the reasons of the levels of physical activity and with changes in physical activity levels will help to develop specific prevention strategies. Some study describes the prevalence and potential determinants of physical activity behavior and behavior changes of young adults.

A large study made by Marinez-Gonzales and his equip (2001) seems to be the first study determining the prevalence and amount of leisure-time physical activity, which is the first step to define strategies to persuade populations to increase their physical activity. So, Northern European countries showed higher levels of physical activity than southern ones. A higher percentage of men practiced any leisure-time physical activity. Also, an inverse association between body mass index and leisure-time physical activity was found. The prevalence of any physical activity during leisure time in the adult European population was similar to the U.S. estimates. Nevertheless, the amount of activity is low, and a wide disparity between countries exists.

Data from Australia, the United States and Europe collected by Stubbs and Leeshow, 2004 increased self-reported energy intake associated with obesity, in contrast to earlier suggestions that the obesity epidemic has occurred despite minimal or increase in per capita energy intake from food. The effect of increased energy intake is compounded by sedentary lifestyles. Both physical activity and nutrition must be addressed to reduce the prevalence of obesity and improve the health. At an individual level, physical activity is clearly important for weight control. Physical activity is an effective adjunct to dietary management for weight loss and maintenance.

Zimmermann-Sloutskis and colleagues' study (2010) based on the Swiss Household Panel, for subjects 14-26 years old, found out that in both young males and young females, the prevalence of inactivity was increasing with age. Women were less active than men of the same age. The most important findings were the strong effects of sport club membership on

general physical activity. The correlation between sport club membership and exercise was not surprising in its nature, but in its strength.

Australian Bureau of Statistics (2006) published provides a brief overview of the prevalence of physical activity in Australia. So adults aged 18 years and over who were sedentary or exercised at a low level were more likely to be classified as having a high or very high level of psychological distress than those who had moderate to high exercise levels.

According to Sirard (2013) physical activity levels suffer a marked decline during adolescence, especially for girls, with the most dramatic decline occurring between ages 15 and 18 years. Physical activity for female adolescents was associated with their male and female friend's physical activity including their male and female best friends. Male adolescents' physical activity was associated with their female friends' physical activity.

The data obtained by Negru (2012) shows that the most of the subjects (pupils, students and employees) do sportive activities for short time less than 30 minutes. In the same time the majority of young people prefer open air activities on workout programs without the guidance of a specialist. The study shows that a great number of women do not practice any sports. The employed young people recognize physical activities related with health.

In a study on students aged 18-23, that evaluate the physical activities Vanvu, Radu (2012) conclude that the Physical Activity Index indicate a rising line between the range reasonable and superior, 60% of subjects having chosen an acceptable lifestyle towards an active and healthy one. Getting more practice on physical activities guidance by specialists the attitude of the young students became more positive. They became aware of the effects of physical activities for a healthy lifestyle.

Options for students in rural areas relating to sport activities indicate boys preference for soccer and girls preference for aerobic gymnastics. Physical activities attract children from rural areas. Favorite sports activities are the school (Ciortianu, Rata, 2010).



Conclusions

Regarding the young males attitude for physical activities it seems that males aged 20-25 are more active and conscious in this field. They have a fair activity and a normal (healthy) weight. Is it possible to be a more open mind and interest of good and healthy looking?

The young males aged 16-19 have a poor activity and a normal weight yet. Maybe the next range of age will bring new and healthy attitude for physical activity.

Young males that reach on other range of age, 26-30 keep on the habitude to practice physical activities, but something happened because they get more heavy and became overweight, it is true very close by normal weight. It seems to be an important signal to have more control on their weight.

For females there is no range of age with a balanced relation between physical activities and weight. So, at the adolescents age 16-19 the girls have a poor physical activity and they are overweight, very close by normal, but the figures calculated get in overweight range.

Young females 20-25 years old have a normal weight, but very close by overweight. They have a poor physical activity that can push very easy the girls very in the range of overweight.

The same unstable situation have the young females aged 26-30. They are more conscious on practicing physical activity and realize an acceptable (fair) activity, but this is not enough, because they are overweight.

The data shows that males are more active than females and they show to be more carefully at age 20-25.

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