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The Level of Physical Activity of University Students

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Abstract

Many studies paid attention to the worldwide decline in physical activity (PA) and increase the sedentary and obesity. The inactivity at different ages it is a major problem for most countries. The aim of the study is to investigate the level of physical activity of university students. In according with the results will see how active they are and what kind of measure may propose to increase the data obtained. Self administrated International Physical Activity Questionnaire (IPAQ) were used to investigate how active are the university students. Questionnaires were interpreted as: 1) vigorous activity; 2) moderate activity; 3) walking, and 4) sitting in last seven days. A total of 334 students were participated at this study. Anthropometrics measurements were report as height, weight and body mass index (BMI). Most of students have a normal body weight. Physical activity was reported for all group and by genders. Male students are most active comparative with female students. The findings show reasonable basis for health and active life style among students.

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1. Introduction

Many studies took in consideration the worldwide decline of physical activities and the increase of obesity and other disease risks (World Health Organisation, 2010). Physical activity may reduce those risk and in the same time may build and maintain healthy bone and muscle, reduce obesity, reduce stress and anxiety and promotes well being and healthy life style (Chobaniev et al, 2003; Lee & Paffenbarger, 1998; El-Gilany et al, 2011). Physical activity

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decline was evident during young adults' transition into early adulthood with the steepest decline occurring at the time of entering a university (Kwan et al., 2012; Sigmundova et al., 2013). Bray & Born (2004) appreciate that one third of active students in high school became insufficiently active upon transitioning to university life. If we go to check the international literature in Physical activity, will find many studies focused in university population from USA, UK, Canada and other countries. It is very important to describe the Physical activity style from Romanian university population, because would be the first study that investigate the level of PA using The International Physical Activity Questionnaire (IPAQ). In his study about ideological challenges to developing leisure sport in Romania, Masiera et al. (2013) shows a survey from 2009 conducted by GfK Romania indicated that 60% of Romanians were not engaging in any sport, and TNS Opinion Social found 49% of Romanians never exercising or playing sports. Therefore the IPAQ is a challenge to us to find out the level of Physical activity in university level. The IPAQ was developed to address this concern by a group of experts in 1998 to facilitate surveillance of Physical activity based on a global standard (Craig et al, 2003). The IPAQ has since become the most widely used physical activity questionnaire (van Poppel, 2010).

2. Methods

2.1. Period and place of the research

The period of the survey was in the middle of first semester of the 2013-2014 academic year, during two weeks. The research was conducted at the Faculty of Physical Education and Sports, Alexandru Ioan Cuza University from Iasi, Romania, on undergraduate students from department of Physical Education and Sports. We have obtained the written consent of all participants for voluntary participation at this study. All procedures were approved by Ethics Committees from University of Pharmacy and Medicine and Alexandru Ioan Cuza University in according with Helsinki Treatment.

2.2. Subjects

The study was conducted on a total of 333 students, specialization physical education and physical therapy, with an age average between 21.05 ± 1.98 years..

2.3. Procedures

Before applying questionnaire, all subjects participated on anthropometric measurements as height and weight, according to standard methods proposed by the International Society for the Advancement of Kinanthropometry (ISAK, 2001). Based on these measurements, we have determined the body mass index (BMI) by using formula: $weight(kg)/height^2(m)$.

Evaluation of physical activity level was done applying the short form of International Physical Activity Questionnaire (IPAQ) in which respondents are asked to report the number of days and the duration of the vigorous (V), moderate (M), walking activity (W), and a combined total physical activity score. Questionnaires were translate from English in Romanian by two separate native speakers of Romanian language and back translation to English by another two translators who are native speakers of English language. The final form was applied.

All scores were expressed in MET-minutes/week (www.ipaq.ki.se). The following values has been used for the analysis of IPAQ data:

- Walking MET = 3.3 x walking minutes x walking days;
- Moderate MET = 4.0 x walking minutes x walking days;
- Vigorous MET = 8.0 x walking minutes x walking days;
- Total Physical Activity MET = sum of Walking + Moderate + Vigorous MET minutes/week scores.

2.4. Statistical analysis

Anthropometric measurements and characteristics of physical activity are presented as mean±SD by aged. The variable means for characteristics of physical activity were compared between gender by using Independent Samples t test adopting a significant level of 5%. For physical activity index the percentage were showed by group age. The statistical analysis was performed by using the SPSS 20.0 for Windows.

3. Results and Discussions

Table 1. Anthropometrics measurement by gender

Anthropometrics	Total (n=333)	Males (n=205)	Females (n=128)
Age (years)	21.05±1.98	21.19±1.87	20.84±2.14
Weight (kg)	67.19±12.63	74.46±10.07	8.58±0.75
Height (cm)	1.74±0.09	1.79±0.09	1.66±0.06
BMI (%)	22.20±2.65	23.13±2.38	20.70±2.34

Table 2. Interpretation of Total Physical activity MET according with IPAQ

IPAQ	Total (n=333)	Males (n=205)	Females (n=128)
Walking MET (min/week)	1395.18±936.54	1490.11±1026.97	1243.16±749.06
Moderate MET (min/week)	1111.12±835.64	1124.11±842.16	1090.31±827.94
Vigorous MET (min/week)	2867.34±1989.04	3435.22±2125.37	1957.84±1316.12
Total Physical activity MET	5343.92±2314.02	5993.69±2345.19	4303.285±1841.36

After studying Table 1 we can say that the body mass index (BMI) is higher to the male subjects than the female subjects.

From analysis of the physical activity (walking MET and moderate MET) there isn't significant differences between subjects

The analysis of physical activity (Vigorous MET and Total Physical activity MET) were obtained significant differences between genders.

In one of the European report is mention that participation in leisure sport and physical activity has remained relatively low in Romania, levels of obesity among Romanians aged 18 and older are among the lowest of all their EU counterparts: 8% of Romania's population was reported as being obese in 2008/2009 compared to the UK which was at the other extreme with 23.9% (Eurostat, 2011).

Similar study were made by Medina Barquera Janssen (2013), Awadalla et al. (2014), Soguksu (2011), Zhao et al. (2007), Martinez-Lemos, et al. (2014).

A number of studies conducted to evaluate the physical activity, diet, and fitness status of university students have revealed that the physical condition and nutritional habits of students are very much associated with their own attitudes toward health promotion and illness prevention (Haase et al., 2004; Nasui, Popescu, 2014).

4. Conclusions

This study highlights an important issue for the health and welfare of the health college students Physical activity was reported for all group and by genders. Male students are most active comparative with female students. Women perform less vigorous activity than men. The findings show reasonable basis for health and active life style among students.

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