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PHYSICAL ACTIVITY OF STUDENTS OF OSRESS "SUMMER SCHOOL" PARTICIPANTS DIAGNOSISED BY IPAQ QUESTIONNAIRE

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Abstract

Introduction. The problem of health behaviours of students in Europe has been noticeable for several decades, which is why in the EU the issues of this particular sociological group are the subject of numerous studies and analyses. The aim of this research was to obtain knowledge about health behaviours and selected lifestyle elements of students from EU countries.
Materials and methods. The study group consisted of 24 students of EU countries. We used as the research methods of a semi-structured interview and IPAQ.
Results. The results are not satisfactory and are close to the European average of this type of university. However, in order for the relative value of the results to increase and be more beneficial for health, it would be necessary to make students aware of the need to increase their level of activity.
Conclusion. . Participation of students from selected Physical Education universities from the EU as part of the OSRESS project enabled us to obtain the necessary information on a healthy lifestyle. The experiences on teaching social skills and getting to know various forms of physical activity as matches and games specific to each country Physical Education students in the OSRESS project, can be used in other projects or as an academic discipline and be configured as successful strategies to enhance the university student's interpersonal development in the future.

Key words: students, physical activity, lifestyle, IPAQ, health behaviour, OSRESS

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Introduction

The physical condition of individuals is a testimony to the biological value of society. In the sport sciences, the manifestation of the physical condition of young people is the course of the processes of growth and maturation, as well as the level of physical fitness and efficiency of the body (1). In our society, in the field of physical activity, serious neglect is observed, which also characterizes young people. Recreational and tourist forms of recreation for young people, especially academic ones, apart from undoubted health benefits, culturally and cognitively enrich them by shaping the lifestyle and creating appropriate patterns of spending free time (2-4). According to Karski (5) positive health is the ability to cope with one's environment and living conditions, it is the ability to manage one's own life and maintain a constant ability to work and socially integrate despite possible obstacles, allowing to maintain one's mental balance.

The World Health Organization (WHO) has recommended various interventions to prevent and control noncommunicable diseases, such as creating community programs for physical activity and nutrition, establishing healthy eating environments in schools, introducing school - based physical activity programs, and providing nutritional information and counselling (6).

Contemporary youth is exposed to lifestyle diseases, including obesity, and weight gain caused by excess body fat increases the risk of cardiovascular complications and coronary heart disease. In addition to proper nutrition, physical activity is also important as well as systematic training to improve the efficiency of the respiratory and circulatory systems (7,8). Many authors, both in Poland and abroad, have noticed a tendency where people do less physical activity in almost all age categories, which is considered the main reason for the increase in the prevalence of obesity among university students and adults (9-11).

The issue of health behaviours of students in Europe has been noticeable for several decades, which is why in the EU the issues of this particular sociological group are the subject of numerous studies and analyses (12,13). The aim of this research was to obtain knowledge about the health behaviours and selected lifestyle elements of students from EU countries.

Material and methods

The OSRESS project involved 24 students, 5416 % (n = 13) of which were males and 4583 % (n = 11) females, from a total of 6 universities based in 5 countries (St. Cyril and St. Methodius University of Veliko Turnovo, Bulgaria; Latvian Academy of Sport Education (LASE), University of Malaga (Spain), University of Klaipeda University and Vytautas Magnus University (Lithuania). The coordinator of the project is the Jozef Pilsudski University of Physical Education in Warsaw, Faculty of Physical Education and Health in Biala Podlaska (Poland). The development project OSRESS was implemented from September 11, 2019 to September17, 2019. The research was conducted using a case study methodology in 2019. The following research methods were applied, analysis of scientific literature, semi-structured interview and IPAQ (14), development OSRESS project, and qualitative data analysis.

Results

The level of physical activity is a positive measure of the health of various social groups.

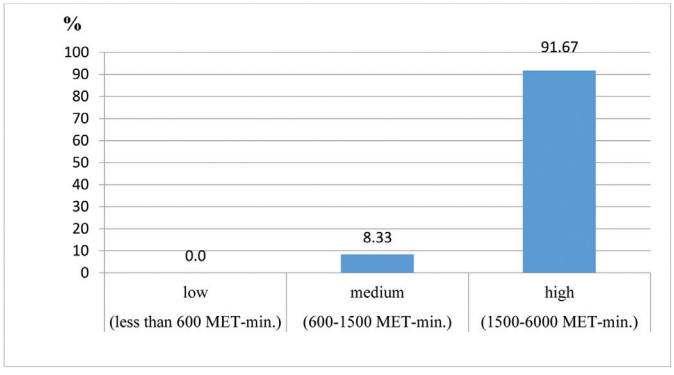

Fig. 1: The level of physical activity of OSRESS students related to work (study)

Analysing the results obtained from the IPAQ, it was found that among the surveyed persons studying PE in the field of part 1 concerning professional work (studies), 8.33% of students do an average amount of physical activity, while only 91.67% do high physical activity within the study (Fig. 1).

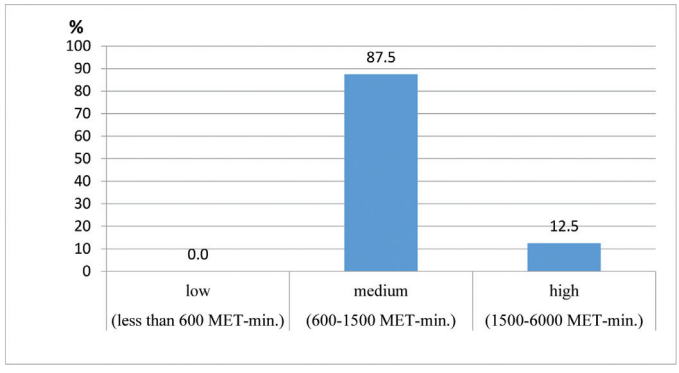

Fig. 2: The level of physical activity of OSRESS students related to moving from place to place

Next, the results concerning the level of physical activity related to movement were analysed. It was found that students to a large extent choose a means of transport, which is evidenced by the fact that as many as 87.5% of the surveyed students do an average amount of activity in this area. However, only 12.5% of the respondents engage in a high-level physical activity as part of "moving" (Fig. 2).

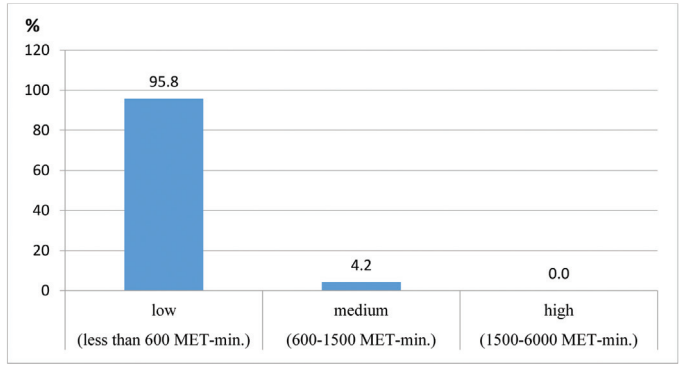

Fig. 3: Level of physical activity of OSRESS students depending on the intensity of work related to work in and around the home

On the other hand, when analysing activity related to housework (at home and its vicinity), students do a low amount of physical activity, as many as 95.8% of them declared themselves to be in this group, and the remaining 4.2% to be in the medium activity level range (Fig. 3).

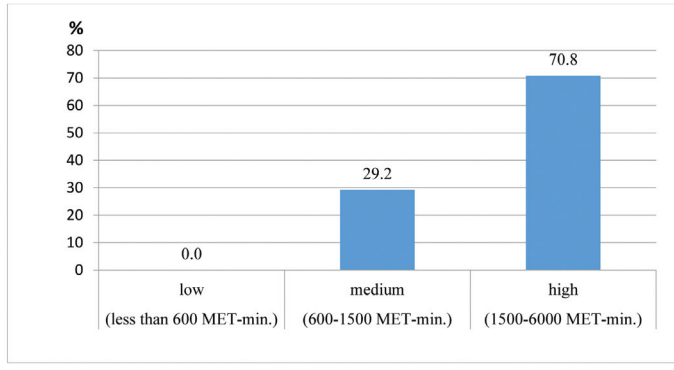

Fig. 4: The level of physical activity of OSRESS students related to leisure time

The last part of the IPAQ questionnaire was related to recreational and sports activity. The research showed that 70.8% of PWSIiP students do a high level of physical activity in their free time, which means that these are people who spend their free time very actively, which results from the field of study and probably from the personal interests of the respondents (Fig. 4) .

Table 1. Statistical summary of diagnosed physical activity IPAQ students OSRESS

Part of IPAQ	Descriptive statistics					
	M	Min.	Max.	Lower quartile	Upper quartile	Quartile range
Part 1.	2487.00	990.00	5310.00	1696.00	4158.00	2462.00
Part 2.	742.50	66.00	2430.00	396.00	990.00	594.00
Part 3.	420.00	0.00	1260.00	90.00	622.50	532.50
Part 4.	2674.50	279.00	4716.00	1024.50	3480.00	2455.50
∑ MET-min.	6547.50	2727.00	10776.00	5583.50	7644.75	2061.25
∑ inactive	912.50	510.00	1850.00	780.00	1050.00	270.00

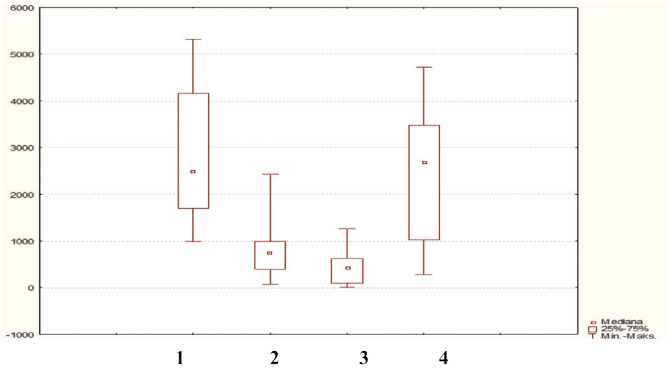

Fig. 5: Statistical picture of physical activity of OSRESS students

Figure 5 and Table 1 above present the physical activity of the respondents in a statistical manner based on the fundamental parameters of descriptive statistics.

Discussion

The optimal level of physical activity has been gaining in significance in in times of widespread hypokinesis of the members of not only European countries, rising health threats connected with the development of civilization diseases. [15] Physical activity as one of the most important components of a healthy lifestyle and adapted to individual human needs has a positive effect on maintaining optimal health and physical fitness in adulthood, prevents loss of muscle mass and bone density, and delays osteoporosis [16].

Further, previous studies conducted with academic students have shown that well - planned health promotion programs can effectively promote a healthy diet and physical activity (17-21). The health promotion model is one of the most frequently used models for the acquisition of health behaviours (22). On the other hand, only the measurement of physical activity and fitness can contribute to the creation of very good pro-social and pro-health programs (23-27). At different ages, there are different motives for doing physical exercise.

Initially, people practicing physical activity want to have an impact on their own appearance and weight loss, while older people, i.e. students, treat it as an increase in life energy.

Conclusions

Participation of students from selected Physical Education universities from the EU as part of the OSRESS project enabled us to obtain the necessary information on a healthy lifestyle. The experiences of teaching social skills and getting to know various forms of physical activity as matches and games specific to each country Physical Education students in the OSRESS project, can be used in other projects or as an academic discipline and be configured as successful strategies to enhance the university student's interpersonal development in the future. Well-prepared students at the University of Physical Education for the profession of physical education teacher are a great chance for the physical activation of European society. The relationship between the awareness of physical activity, and health has been proven many times, and the need to use programs that activate people of all ages. One of the additional programs to prepare for the profession of physical education teacher is the Summer School OSRESS.

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Literature

[1] Buchard C., Shepard R.J. The model and concepts in: Physical activity, fitness, and health C. Bouchard, R. J. Shepherd, T. Stephens ed. *International proceeding and consensus statement. Champing.* Human Kinetics, 77-89, 1993.

[2] Woynarowska B. *Edukacja zdrowotna.* Podręcznik akademicki. Warszawa. Wydawnictwo Naukowe PWN, 2017.

[3] Kuński H. *Trening zdrowotny osób dorosłych.* Wydawnictwo MedsportPress, Warszaw, 2002.

[4] Litwiniuk A. Physical activity as a factor determining men's well-being health. In: OSRESS Outdoor sports and recreation education Summer School. Bula-Biteniece I.B, Grants J. (eds.). Ryga, Latvian Academy of Sport Education, 35-41, 2014

[5] Karski J.B. *Promocja zdrowia.* IGNIS Warszawa, 1999.

[6] World Health Organization (WHO). Global Action Plan on Physical Activity 2018 - 2030: *More Active People for a Healthier World.* Geneva: WHO, 2019.

[7] Blair S., Cheng Y., Holder J. Is physical activity or physical fitness more important in defining health benefits? *Med. Sci Sports Exerc*, 33, (379), 2001.

[8] Haskell WL, Lee IM, Pate RR, Powell KE, Blair SN, Franklin BA et al. Physical activity and public health: updated recommendation for adults from the American College of Sports Medicine and the American Heart Association. *Med Sci Sports Exerc.* 39(8): 1423-34, 2007.

[9] Litwiniuk A. Physical activity as a factor determining men's well-being health. In: OSRESS Outdoor sports and recreation education Summer School. Bula-Biteniece I.B, Grants J. (eds.). Ryga, Latvian Academy of Sport Education, 35-41, 2014.

[10] Czeczelewski J., Raczyński G. Food intake, somatic traits and physical activity of adolescents. *Human Movement*, 7(1):58-64, 2006.

[11] Eisenenmann J.C., Katzmarzyk P.R., Tremblay M.S. Leisure-time physical activity levels among Canadian adolescents 1981-1998. *J.Phys.Act.Health*, 1, 2, 2004.

[12] Eurobarometer. TNS Opinion& Social; *Avenue Herrmann Debroux*, 40, 1160 Brussels, Belgium, 2018.

[13] Polish Population's Health Condition in 2016. *GUS*, Warszawa, 2018.

[14] Sjostrom M., Ekelund U, Poortvliet E., Hurting-Wennlof A., Yngve A. Assessment of physical activity using IPAQ – version 4 – and activity monitors – CSA", Measurement. Physical Education Exercises Sciences, 4, 263-264, 2000.

[15] Kuński H. *Trening zdrowotny osób dorosłych, stosowany w praktyce.* Medicina Sportiva , 7(1), 15-25, 2003.

[16] Raczyńska B., Długołęcka B. Physical activity in osteoporosis prevention and treatment. Pol. J. *Sport Tourism*, 16, 1-14, 2009.

[17] Cotten, E., & Prapavessis, H. (2016). Increasing nonsedentary behaviors in university students using text messages: Randomized controlled trial. JMIR mHealth and uHealth, 4(3), e99.

[18] Duan, Y. P., Wienert, J., Hu, C., Si, G. Y., & Lippke, S. (2017). Web - based intervention for physical activity and fruit and vegetable intake among Chinese university students: a randomized controlled trial. Journal of Medical Internet Research, 19(4), e106.

[19] Heeren, G. A., Jemmott, J. B., Marange, C. S., Rumosa Gwaze, A., Batidzirai, J. M., Ngwane, Z., Mandeya, A., & Tyler, J. C. (2018). Health - promotion intervention increases self - reported physical activity in Sub - Saharan African University students: a randomized controlled pilot study. Behavioral Medicine, 44(4), 297 – 305.

[20] Stephens, J. D., Althouse, A., Tan, A., & Melnyk, B. M. (2017). The role of race and gender in nutrition habits and self - efficacy: Results from the young adult weight loss study. Journal of Obesity, 2017, 1 – 6.

[21] Whatnall, M. C., Patterson, A. J., Chiu, S., Oldmeadow, C., & Hutchesson, M. J. (2019). Feasibility and Preliminary Efficacy of the Eating Advice to Students (EATS) brief web - based nutrition intervention for young adult university students: a pilot randomized controlled trial. Nutrients, 11(4), 905.

[22] Pender, N. J., Murdaugh, C. L., & Parsons, M. A. (2010). Health Promotion in Nursing Practice. ed 6. Pearson: Boston, MA. Sevinç, S., & Argon, G. (2014). Turkish Validity and Reliability of Self -Efficacy Scale in regulation of nutritional habits in heart patients. Journal of Ege University Nursing Faculty, 30, 19 – 33.

[23] Blair S.N., W.L.Haskell, P.Ho, R.S.Jr.Paffenbarger, K.M. Vranizan, J.W.Farquhar, Wood P.D. Assessment of habitual physical activity by a seven-day recall in a community survey and controlled experiments. *Am.J.Epidemiol.* 122:794-804, 1985.

[24] Booth M. Assessment of physical activity: an international perspective. *Res.Q.Exerc.Sport* 71:114-120, 2000.

[25] Bouchard C., R.J.Stephard, T.Stephens, eds. Physical Activity, *Fitness, and Health. Human Kinetics Publishers*, Champaign IL, 1994.

[26] Craig C.L., Marshall A.L., Sjøstrom M., Bauman A.E., Booth M.L., Ainsworth B.E., Pratt M., Ekelund U., Yngve, Sallis J.F. Oja P. International A. Physical Activity Questionnaire: 12-country reliability and validity. *Med.Sci.Sport Exerc.*, 35: 1381-1395, 2003.

[27] Pate R.R., M.Prat, S.N.Blair, W.L.Haskell, C.A.Macera, C.Bouchard et al. Physical activity and public health. A recommendation from the centers for Disease Control and Prevention and the American College of Sports Medicine. *Journal of American Medical Association*, 273(5):402-407, 1995.

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