

Physical Activity of University Students with Various Study Profile

Authors' Contribution:

A - Study Design
B - Data Collection
C - Statistical Analysis
D - Manuscript Preparation
E - Funds Collection

Dana Masaryková^{1ABCD}, Jana Labudová^{2BCDE}, Ivan Matúš^{3BCD}

¹ Trnava University, Faculty of Education, Trnava, Slovakia

² Comenius University, Faculty of Physical Education and Sport, Bratislava, Slovakia

³ University of P. J. Šafárik in Košice, Institute of Physical Education and Sport, Košice, Slovakia

Abstract

Introduction. The current problem of physical inactivity in population is analysed by professionals in various age categories. One of the groups, not that often observed, are university students, who should be able to present their attitude to regular physical activity as well as its contribution to healthy lifestyle. The aim of the research was to find out the structure of physical activities in university students in various study programmes (teacher programmes, sport programmes) and also to determine their attitude to physical activity and the reasons for (not) including physical activity in daily regimen. **Methods.** The research group involved students of the Faculty of Physical Education and Sport, Comenius University (n=53, 26 men and 27 women), Faculty of Education, University of Trnava (n=53, only women) a University of P. J. Šafárik in Košice (n=45, 30 men, 15 women). The data were collected by questionnaire with open, semi-open and closed questions. The data were analysed by MS Excel and non-parametric Chi-square test. **Results.** The students with sports profile presented more positive attitude to physical activity than the other students of other study profile. On the other, hand students of the teacher study profile were least satisfied with the offer of physical activities at their faculty and they would like to perform more activities in their leisure time if they had better conditions. The reasons for not performing physical activity were also various. Students with teacher profile chose not enough time (52%), however, students with sports profile chose their health condition as the priority (37%). The reasons for including physical activity in daily regimen were in the group of teacher students supporting health and body forming, the other groups of students preferred fun and challenge. The time spent with sedentary activities was not different regarding the study profile but regarding sex. The results showed a clear difference between men and women, where the most men chose 1-2 hours of sedentary activities every day, whereas women suggested 3-4 hours of sedentary activities. **Conclusion.** Our research data confirm the importance of analysing the reasons for performing or not performing physical activities by university students, which could help to create an optimal model of a physical programme for various study profiles. The results suggest that the students of teacher programmes will prefer health-oriented activities with emphasizing body forming, whereas students of sports programmes will prefer activities focused on performance, challenge and experience.

Keywords: university students, physical activity, physical inactivity, healthy lifestyle,

Address for correspondence:

Dana Masarykova - Trnava University, Faculty of Education, Priemyselna 4, Trnava, Slovakia, email: dana.masarykova@truni.sk

Received: 25.05.2016; Accepted: 4.06.2016; Published online: 5.08.2016

INTRODUCTION

The importance of physical activity is highlighted in every professional discussion focused on healthy lifestyle, physical education or sport. Physical inactivity has been linked with chronic disease and obesity in most western populations. However, a prevalence of inactivity, health beliefs, and knowledge of the risks of inactivity have rarely been assessed across a wide range of developed and developing countries [7]. There has been carried out various research focused on physical activity, physical education and sport and current problem of physical inactivity in population is analysed by professionals in various age categories. One of the groups, not that often observed, are university students, who should be able to present their attitude to regular physical activity as well as its contribution to healthy lifestyle. In research findings of Kwan [7] the prevalence of inactivity in leisure time varied with cultural and economic developmental factors and the likelihood of leisure-time physical activity is positively associated with the strength of beliefs in the health benefits of activity and with national economic development. However, in their research, the knowledge about activity and health of university students (n=19298) was disappointing, with only 40–60% being aware that physical inactivity was relevant to risk of heart disease. According to some authors [4, 7, 9, 10, 12] physical activity decline is evident during early adulthood with the steepest decline occurring at the time of entering a university. Bray and Born [1] agree that one third of active students in high school became insufficiently active upon transitioning to university life.

According to Ivaschenko [6], there lies a strong relation between physical education as a subject and performed physical activity of students. General problems of physical education as a subject that is not appropriately acknowledged in education process usually cover the number of teaching hours, specific content, quality of teacher education and others. Hardman [5] names some of the problems that physical education encounters these days: number of teaching hours, various contents, a large gap between official policies and regulations and real practice, exemption practice from physical education classes etc. According to Haag [3], physical education is currently understood as a „service“ from three basic points of view: medical-natural, social-behavioral and political-economical. Despite the fact that the various research findings prove the importance of PE for developing regular physical activity, there has not been done enough to improve the situation. It is known that physical activity affects also quality of life. There are some factors e.g. self-esteem, self-efficacy or self - enhancement that can indirectly show this relation. As Rodney et. al [9] state in their findings, health education programmes, as well as physical education can promote importance of physical activity and thus develop healthy lifestyle specifically in university education in all education programmes.

Physical education at universities in Slovakia is usually part of the study profile (PE teachers, primary teachers etc.) and sometimes it is offered as an obligatory or facultative course at the university. Also, there is the possibility to perform sport on a professional level in university sports teams however; this is not considered as sport for all or physical education. Regular physical activity is usually performed by students in their free time or in relation to their study profile it can be performed during physical education lessons. Some of the studies in Slovakia [2, 8, 11] suggest that the physical activity of university students is not appropriate, however most of the studies were focused on the level of physical condition and motor performance and they were less oriented on the content of usually performed activities or preferences of students to increase regular physical activity. Therefore, we believe that there is an interesting research problem in the attitude of university students to physical activity, their regular habits and preferences of physical activities and this problem is presented in our research.

METHODS

Participants

In our research we focused on the structure and extent of physical activities of university students of three different universities and with different study profile in Slovakia – Comenius University in Bratislava (UKB), Trnava University (UTT) and the University of P.J Šafárik in Košice (UKE). The research group involved students of the Faculty of Physical Education and Sport, Comenius University (n=53, 26 men and 27 women) studying physical education and sport - sport profile, Faculty of Education, University of Trnava (n=53, only women) studying pre-primary and primary education – teacher profile and University of P. J. Šafárik in Košice (n=45, 30 men, 15 women) studying sport and recreation. The age of the students was 20.6+0.1 years.

Measures and procedures

The data were collected by a questionnaire with open, semi-open and closed questions to receive information about the students' attitude to physical activity, regularity, content, preferences and needs. The questionnaires were distributed in the winter semester 2015/16 (September-December). All the questionnaires were printed and distributed in print form.

Statistical analysis

The data obtained by means of a questionnaire were firstly organized and sorted in MS Excel. We used graphs with percentage for presenting all the data related to questionnaire items. We used non-parametric Chi-square test for stating significant relations among the data.

RESULTS

There was found statistically significant difference ($p < 0.01$) between group of students with sports profile and the other observed groups, in more positive attitude to physical activity than the other students. This result suggests the relationship between regular physical activity and the attitude to perform the activity. None of the students suggested negative or very negative attitude to physical education (fig. 1).

Our next question was focused on the amount of physical activity performed per week. We supposed that the students with sports profile will choose more physical activities per week than the students of other study profiles. Almost 50% of female students from UTT with teacher profile chose physical activity only twice per week, on the other hand, more than 50% of male students from UKB perform physical activity five or more times per week. The female students from UKB are the most homogenous group with more than 40% choosing five times per week and more and 50% choosing four times per week. The amount of performed physical activity per week is shown in fig.2

A very important factor influencing regular activity is the motivation or reason for doing the activity. The motivation is often based on the external influence of the society. This was also the case in the group of female students with teacher profile who chose the reasons for including physical activity in daily regimen specifically supporting health, weight reduction and body forming as the main reasons, however, the other groups of students preferred fun. An interesting fact is that the female students of UKE were not interested in weight reduction at all (tab. 1).

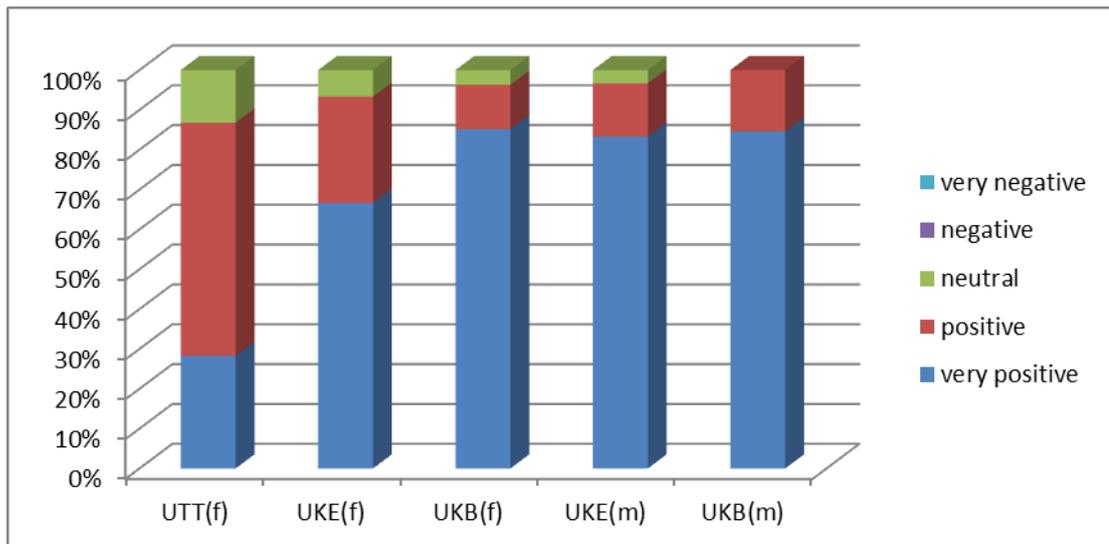


Fig.1 The attitude to physical activity. UTT(f) - Trnava University female, UKE (f) - University Košice (female), University Bratislava (female), UKE (m) - University Košice (male), UKB (m) University Bratislava - (male).

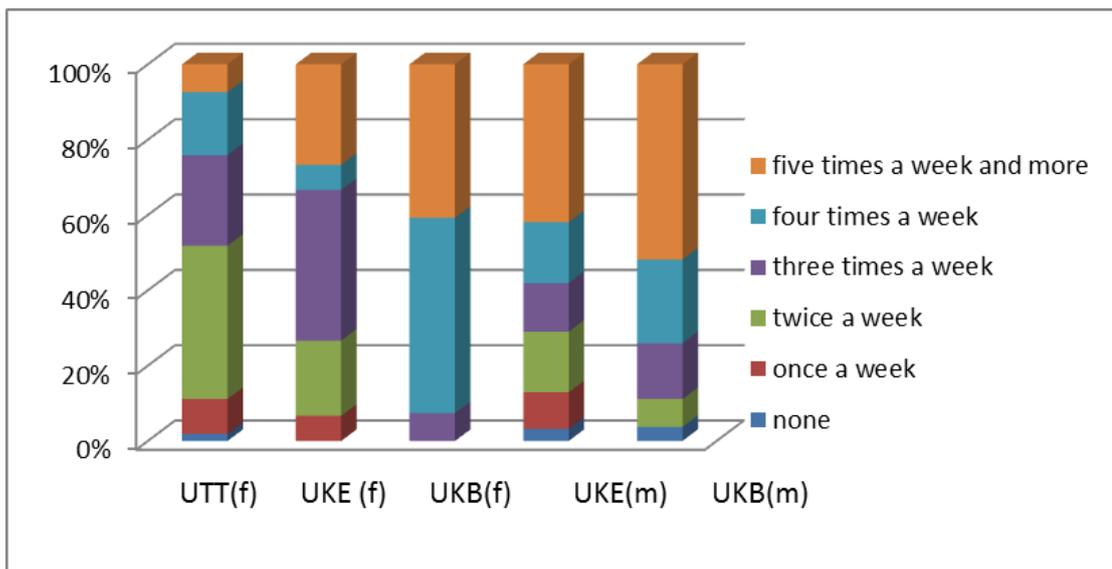


Fig. 2 The amount of physical activity (min. 30 min) per week

Tab. 1 The reasons for doing regular physical activity

	sex	health support (%)	weight reduction (%)	fun (%)	body forming (%)	study (%)	work (%)
UTT	F	56	35	43	52	37	5
UKE	F	46		33	33		13
UKB	F	62	18	77	59	74	29
UKE	M	46	13	8	30	13	23
UKB	M	73	19	84	73	46	7

Tab. 2 Reasons for not doing regular physical activity

	sex	time (%)	money (%)	health (%)	sparing partner (%)	nothing (%)
UTT	F	53	4	17	17	9
UKE	F	46	14	33		7
UKB	F	29	19	41	4	7
UKE	M	30	7	23	7	33
UKB	M	19	11	31		39

Tab. 3 Preferences of physical activities in students

	sex	individual sports (%)	games (%)	fitness activities (%)	activities in water (%)	activities in nature (%)	combat sports (%)	rhythm and dance activities (%)
UTT	F	38	41	32	20	34	2	40
UKE	F	33	4	2		13	6	13
UKB	F	40	62	40	18	40	11	37
UKE	M	46	60	36	6	1	6	
UKB	M	50	73	46	23	23	7	3

On the other hand it is important to know what the reasons for not doing regular activity are. The most students in all the observed groups suggested not enough time for physical activities, but interesting is that many students chose health problems as the reason for not doing activity on a regular basis (tab. 2). This factor varied from 20%-40% in all the groups of students. Students with teacher profile chose not enough time (52%) as the main reason, however, students with sports profile chose their health condition as the priority (37%). This may be in relation with a larger presence of injuries in professional sport.

An important part of the research was the structure of physical activities that are preferred by the students (tab. 3). The most preferred activities in all the groups were team sports - sports games, followed by individual sports. There was found no statistically significant relation in preferences, which is quite interesting because this result suggests that the level of physical skills probably does not influence the preference of performed physical activity in leisure time. It was assumed that the students with sports profile would choose more skilful activities, however, this was not proved in the research.

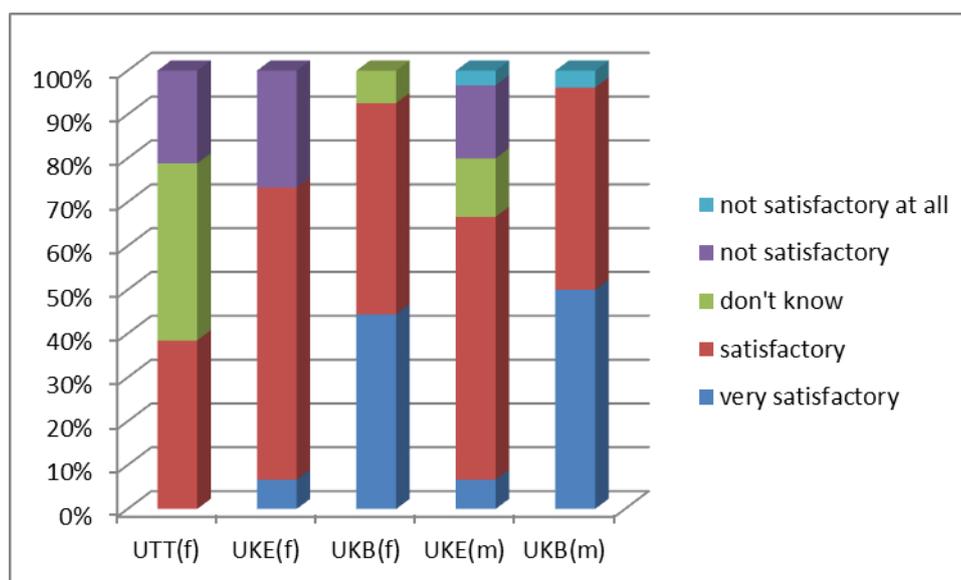


Fig. 6 The offer of physical activities at the faculty

Tab. 4 Physical activities that could be added to faculty's offer

	sex	individual sports (%)	games (%)	fitness activities (%)	activities in water (%)	activities in nature (%)	combat sports (%)	rhythm and dance activities (%)	none (%)
PDF	F	6	26	17	26	19	6	19	7
UPJS	F	2		33	6	13	2		
FTVŠ	F	19	7	11		4	26	26	11
UPJS	M	23	20	20	3	13	46	3	
FTVŠ	M	15	8	8		4	23		57

The students of the teacher study profile were not very satisfied with the offer of physical activities at their faculty (fig.6), but they also admitted they did not know about all the offered activities at the faculty and this result was statistically significant ($p < 0.01$). On the other hand students with sport profile were very satisfied with the offer of physical activities at their faculty both men and women. This was also proved in the question of adding specific physical activities to the offer of faculties or universities (tab. 4). The male students of sports profile from UKB were very satisfied with the offer and more than a half of them (57%) would not add any other activities to faculty's offer. On the other hand, the female students of the same faculty were also satisfied with the offer but they would welcome more combat sports (26%) and rhythm and dance activities (26%). Also the male students in Košice would like to have more combat sports (46%) on the offer, but the female students would prefer more fitness activities.

Regarding the students of teacher profile (UTT) they suggested physical activities in water as the most wanted. The faculty itself is currently offering only three hours in pool per week (without supervision) and this counts for all the Trnava university (tab. 4). Therefore, this requirement is very objective and it would be good to consider more opportunities for students to participate in water activities. It is probably not a surprise that the male students would welcome more combat sports at the faculties, but this was also a request of female students with sports profile. It is interesting that the female students at the Košice University did not choose team sports to be added to faculty's offer in contrary to their preferences shown in tab. 3.

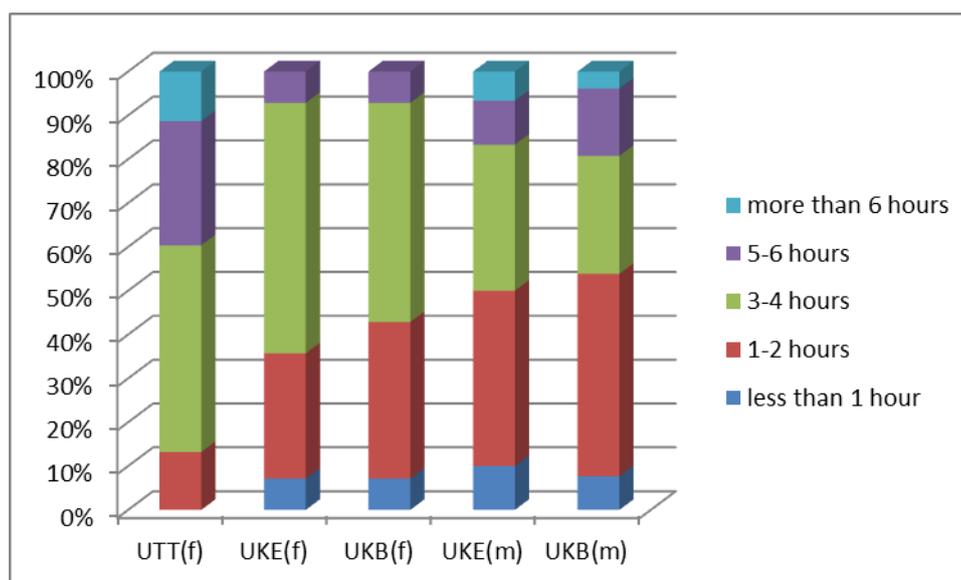


Fig. 8 Number of hours daily spent in sedentary activities

The time spent with sedentary activities was not different regarding the study profile but regarding gender. The results showed a clear difference between men and women, where the most men chose 1-2 hours of sedentary activities every day, whereas women suggested 3-4 hours of sedentary activities per day (fig. 8). In all the female groups of students more than a half of students (50-53%) answered that they spent 3-4 hours per day with sedentary activities.

DISCUSSION

University students are a specific group of the population regarding their daily regimen. The students are often overloaded by cognitive activities and the need for balance between physical and psychical load is even higher than in other groups of the population. In our research, we have purposely chosen three different groups of students with various study profiles. We expected that the group of students specialized in sport and physical education will have a more positive attitude to physical activity and will perform physical activity on a more regular basis. This hypothesis was correct, however, we found some interesting relations between students studying general teacher programmes and their reasons for performing physical activity in their free time. The reasons were far more connected to health and body whereas the PE and sports students were more focused on performance and challenge. In a case of longitudinal study there may be good to ask question which motivation is more longstanding. We also found statistically significant differences ($p < 0.01$) between sedentary activities of women and men, where most of the men suggested only 1-2 hours of daily sedentary activities and most of the women chose 3-4 hours of being not physically active.

CONCLUSION

Physical activity of students in universities varied according to study profile as well as their gender. In general, students with sport profile (PE teachers and coaches) have a more positive attitude to physical activity than the students of other study profiles and men are more active in terms of stating time for sedentary activities than women. Female students are more aware of a positive influence of physical activity on health, but they are also motivated by their

body impression.

Regular physical education lessons at universities seem to have a specific influence on physical activity of students. The students of PE who take courses at university in various sports are more satisfied with this offer than students who are offered only facultative courses or facultative activities. In the past, in Slovakia almost every university or even faculty had its own department of physical education and this department was responsible for students' regular physical activities. However, this has changed in the past years and every university and its faculties have a different system of including physical activity in regimen of students.

We also recommend offering different activities for men and women, because they have other preferences. However, there may be sometimes and interesting intersection as for example in the interest in combat sports by female students. Nevertheless, the offer of physical activities at the universities should be vast and variable and there should be part of the activities obligatory with no specific relation to study profile.

REFERENCES

1. Bray SR, Born HA: Transition to university and vigorous physical activity: Implications for health and psychological well-being. In *Journal of American College Health*, 2004; 52(4):181-188. Doi:10.3200/JACH.52.4.181-188
2. Cepková A: Pohybová aktivita, zdravie, zdatnosť vysokoškolákov, 2015
3. Haag H: Philosophical and anthropological justification for physical education in and outside of schools. In: *FIEP bulletin*, 2013; 83(3): 216-218
4. Haase A, Steptoe A, Sallis JF, Wardle J: Leisure-time physical activity in university students from 23 countries: associations with health beliefs, risk awareness, and national economic development. In *Preventive Medicine*, 2004; 39(1): 182-190
5. Hardman K: Worldwide survey on the state and status of physical education in schools: Foundations for deconstruction and reconstruction of physical education. In *Physical Education : Deconstruction and reconstruction – Issues and directions*, 2003
6. Ivaschenko S: Influence of individual training programs on learning effectiveness of students in higher educational institutions. In *Physical Education: Quality in Management and Teaching*, 2014
7. Kwan MY, Cairney J, Faulkner GE, Pullenavegum EE: Physical activity and other health-risk behaviours during the transition into adulthood: A longitudinal cohort study. In *American Journal of Preventive Medicine*, 2012; 42(1),14-20. Doi:10.1016/j.amepre.2011.08.026
8. Palovičová J: Pravidelná pohybová aktivita v dennom režime vysokoškoláčok. In *Súčasný stav a vývojové trendy vysokoškolskej telesnej výchovy a športu pred vstupom do Európskej únie*, 2003; 52 - 56
9. Rodney JP, Royse KE, Benitez TJ, Pekmezi DW: Physical activity and quality of life among university students: exploring self-efficacy, self-esteem, and affect as potential mediators. In *Quality of Life*, 2014; 23(2): 659-667
10. Sigmundova D, Chmelik F, Sigmund E, Feltlova D, Fromel K: Physical activity in the lifestyle of Czech university students: Meeting health recommendations. In *European Journal of Sport Science*, 2013; 13(6): 744-750. Doi:10.1080/17461.2013.776638
11. Šulc I: Telesná výchova a šport na vysokých školách. In *Zborník vedeckej konferencie „Perspektívy školskej telesnej výchovy a športu pre všetkých v SR“*, 2001; 162 - 166
12. Zhao Y, Sigmund E, Sigmund D, Lu Y: Comparison of Physical Activity between Olomouc and Beijing University Students Using an International Physical Activity Questionnaire. In *Acta Univ. Palacki. Olomuc., Gymn*, 2007; 37(4): 107-114