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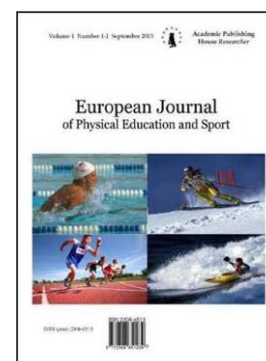
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## Leisure-Time Physical Activities among Adults

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### Abstract

This article presents the partial findings regarding leisure-time physical activities done by middle-aged adults. In our study group (742 respondents, including 403 women and 339 men) significantly ( $p < 0.01$ ) 56.3 % ( $n = 191$ ;  $\chi^2 = 103.2323$ ;  $df=4$ ) of the men and only 31 % ( $n = 125$ ) of the women stated that they like doing sports activities in their leisure time as a kind of active rest. The most popular leisure-time physical activity among the men was football (16.74 %;  $n = 107$ ), whereas the women prefer different kinds of dance (aerobic 16.45 %;  $n = 114$ , Zumba 13.71 %;  $n = 95$  as well as Pilates exercise 4.47 %;  $n = 31$ ). In terms of frequency of physical activity, as many as 33 % ( $n = 112$ ) of the men and 28.5 % ( $n = 115$ ) of the women carry out physical activities irregularly, while 21.5 % ( $n = 73$ ) of the men and 15.6 % ( $n = 63$ ) of the women do not do them at all. There was a significant difference ( $p < 0.01$ ) confirming lower intensity of sports activities in the women in comparison to the men. As far as the way of doing physical activity is concerned, both men (68 %;  $n = 231$ ) and women (53 %;  $n = 214$ ), with the highest percentage, chose the option “in an organised group”, with the significant difference ( $p < 0.01$ ) in favour of the men ( $\chi^2 = 22.3299$ ). The study is a part of the researched project VEGA 1/0795/15.

**Keywords:** adulthood, physical activity, leisure time.

### 1. Introduction

The World Health Organisation declared 10 May the World Move-For-Health Day. The purpose was to point to an increasing number of chronic diseases caused by a lack of physical activity (Müller et al., 2013; Dobay, Bendíková, 2014). Sports activities, which belong to significant social phenomena, play an important role in terms of disease prevention and health promotion (Kováč, 2000). They are becoming increasingly popular as leisure-time activities due to several objective and subjective reasons related to development of the society (Labudová et al., 2012; Kovács, 2004).

Physical activity in relation to lifestyle and health proves that the health status can affect leisure-time activities as well as common everyday activities that are important in our life (Bendíková, 2014). Even ancient doctors, including the Chinese ones (around 2600 B. C.) and Hippocrates (around 400 B. C.) believed that physical activity is beneficial for human health. However, the opinion that exercise could endanger people's health had been prevalent until the 20<sup>th</sup> century. J. Morris, whose work helped to change this general belief, was one of the pioneers in this field. He conducted the first precise epidemiological study focused on the relation between

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physical inactivity and the risk of chronic diseases. It was published in 1953 Blair et al. (2011). Since then, there has been more and more evidence that clearly proves health benefits of physical activity. McElroy (2002) states that the dislike for sports and physical activity can be understood as a battle between two contrasting ideologies. One ideology explains that the sedentary lifestyle is caused by an individual's failure to take responsibility for his/her health, while the other ideology claims that the sedentary lifestyle is the result of a larger social, cultural, political and economic structure of the contemporary society (Szökö, 2015, 2016). According to several studies (Pedersen, 2009; Blair et al., 2011), people who do not do regular physical activity are much more susceptible to diseases and disorders than those who do it regularly. Many centuries ago, Aristotle, a famous Greek philosopher, defined the ideas that are true even today. He defined physical activity as a leisure-time activity that provided space for human cultivation and self-fulfilment. This concept is very close to the contemporary one. The importance of leisure time at the beginning of the 21<sup>st</sup> century was increased by different documents and activities organised in the last decades of the last century. One of the most significant documents was the Charter for Leisure Education approved by the World Leisure and Recreation Association in December 1993 (Hofbauer, 2004).

The studies focused on physical activity among adult population found that the frequency of physical and sports activities decreases from 26 to 35 years of age. These studies also showed that the factors that influence leisure time in adult population include social status, occupation as well as health and family status (Eurobarometer, 2010).

## 2. Methodology

The aim of our study was to find out what leisure-time physical activities middle-aged adults do in terms of their content, frequency and intensity.

Our group consisted of 742 middle-aged respondents, 403 women and 339 men, who live in southern districts of Slovakia. Table 1 shows their primary characteristics. Selection of the respondents was intentional. They all completed secondary or higher education and they all worked in private or state-owned companies. None of the respondents was partially or totally disabled. They all were married (they had min. 1 child and max. 3 children).

**Table 1.** Group characteristics (n = 742)

Group	n	Age	Body height /cm	Body weight/kg
women	403	37.2 ± 3.04	167.9 ± 3.2	65.3 ± 6.8
men	339	36.5 ± 4.54	179.6 ± 6.3	89.1 ± 7.9

We conducted this empirical study in 2015 in three primary phases, including distribution and collection of data from the questionnaires, processing and evaluation of qualitative data and their interpretation. We obtained data by studying literary sources from different foreign and Slovak databases and using a standardised questionnaire. We processed the data by means of the frequency analysis (%) and the chi-squared test ( $\chi^2$   $p < 0.01$ ,  $p < 0.05$ ) as we wanted to assess the significance of different answers between the male and female respondents. We also used the Pearson correlation coefficient ( $r$   $p < 0.01$ ,  $p < 0.05$ ) to assess the relation between selected determinants of the group, using the Cohen's table. In addition, we used the logical analysis and synthesis methods, induction and deduction as well as comparison.

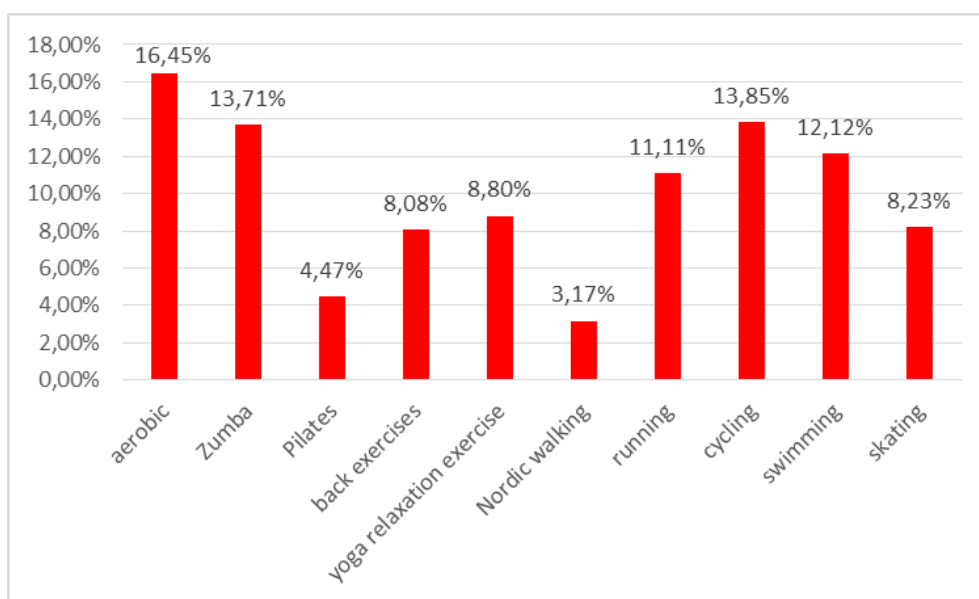
## 3. Results of the study and discussion

The rise in the standard of living provides more space for diverse leisure-time activities that should include also physical activity. Physical and sports activities should become the part of a lifestyle of the young generation. However, as many authors point out (Belej, 1992; Boržíková, 2006; Brtková, 1999; Chovanová, 2005, 2006, Bendíková, 2011; Müller, Rác, 2011; Nemček, 2012; Nagy, Müller, 2016), the daily routine of young people does not include sufficient amount of physical activity in regard to contemporary requirements.

At present, it is difficult for adults to do physical activities in their leisure time due to their being busy. In our study group, significantly ( $p < 0.01$ ) more men 56.3 % ( $n = 191$ ;  $\chi^2 = 103.2323$ ;  $df=4$ ) and only 31 % ( $n = 125$ ) of the women do physical activity in their leisure time as active rest, while 7.4 % ( $n = 25$ ) of the men and 22.8 % ( $n = 92$ ) of the women do not do and do not care for

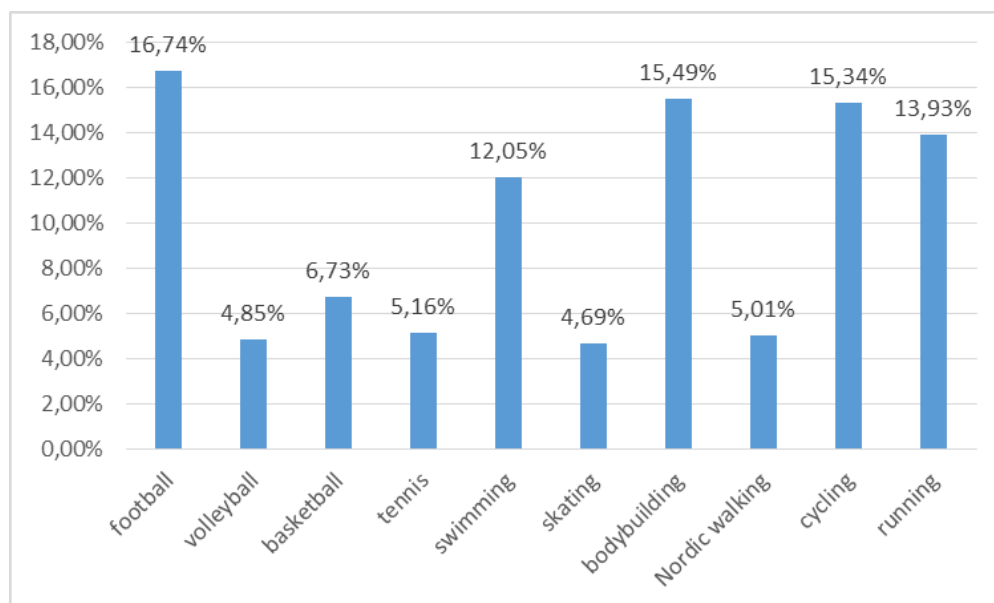
physical activity (3.2 %; n = 13 women and 9.1 %; n = 31 men). As many as 14.4 % (n = 58) of the women and only 1.5 % (n = 5) chose the option “rather not”, whereas 28.5 % (n = 115) of the women and 25.7 % (n = 87) of the men opted for “rather do” physical activity. The positive result is that 91.1 % (n = 309) of the men try to perform some physical activity in their leisure time. On the contrary, this percentage is lower in the women (62.7 %; n = 253), which may be caused by objective and subjective factors related to position of women in the society (taking care of the family, house chores, etc.).

The structure of the leisure-time activities in the women shows the stability as far as the most and least popular physical activities are concerned. The women are interested especially in different kinds of dance such as aerobic (16.45 %; n = 114), Zumba (13.71 %; n = 95) as well as Pilates exercise (4.47 %; n = 31), back exercises (8.08 %; n = 56) and relaxation physical activities (8.8 %; n = 61) (Figure 1). The most popular physical activities in the women focus on aesthetic perception of movement, which is characteristic from the psychological point of view. Other “active rest” activities were swimming (12.12 %; n = 84) and running (11.11 %; n = 77), which are available thanks to the environment and surroundings. Another popular activity among the women is cycling (13.85 %; n = 96).



**Fig. 1** Leisure-time physical activities among women (n = 403)

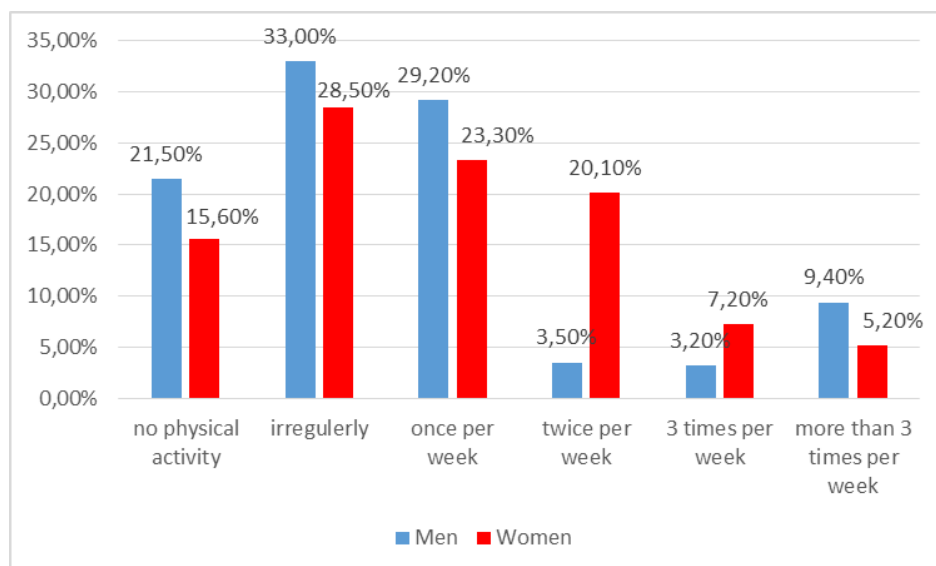
The most popular leisure-time physical activities that the men do are football (16.74 %; n = 107), bodybuilding (15.49 %; n = 99), cycling (15.34 %; n = 98), running (13.93 %; n = 89) and swimming (12.05 %; n = 77). The less popular activities include basketball (6.73 %; n = 43), tennis (5.16 %; n = 33), Nordic walking (5.01 %; n = 32), volleyball (4.85 %; n = 31) and skating (4.69 %; n = 30) (Figure 2).



**Fig. 2** Leisure-time activities among men (n = 339)

Our findings confirm the fact that female adolescents and adults prefer individual activities without direct contact that are focused aesthetically ( $\chi^2 = 33.2323$ ;  $p < 0.01$ ), while the men prefer dynamic and fitness physical activities ( $\chi^2 = 36.3239$ ;  $p < 0.01$ ).

The frequency of physical activities done by individual respondents was as follows (Figure 3): 33 % (n = 112) of the men and 28.5 % (n = 115) of the women carry out physical activity irregularly and 21.5 % (n = 73) of the men and 15.6 % (n = 63) of the women do not do any physical activity at all. This finding is shocking, considering the contemporary prevalence of lifestyle diseases that have far-reaching effects on people's health in adulthood and old age. In addition, Tóthová (2002) states that a lack of sports activities done by women is caused by insufficient willpower (64 %), taking care of family (50 %), a lack of free time (46 %) and occupational fatigue (36 %).

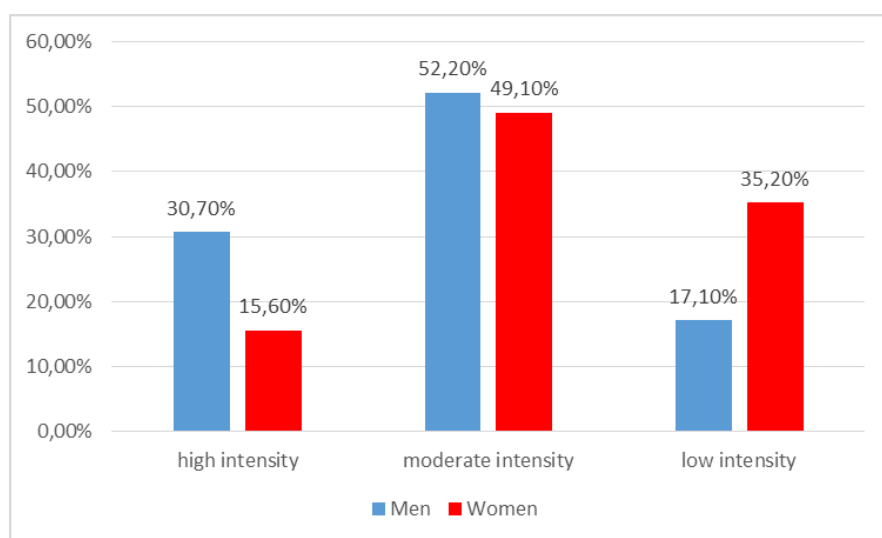


**Fig. 3.** Frequency of physical activity per week (n = 742)

On the contrary, 9.4 % (n = 32) of the men and 5.2 % (n = 21) of the women, with the 4.2 %, difference against the women, carry out physical activities more than three times per week. Furthermore, 29.2 % (n = 99) of the men and 23.3 % (n = 94) of the women (with the 5.9 % difference against the women) do physical activity once per week. Significant number ( $\chi^2 =$

57.3878;  $p < 0.01$ ;  $df=5$ ) 20.1 % ( $n = 81$ ) of the women do physical activity regularly twice per week, while only 7.2 % ( $n = 29$ ) do it three times per week. The men, with the 0.3 % difference, carry out physical activity twice a week (3.5 %;  $n = 12$ ) and three times per week 3.2 % ( $n = 11$ ). The findings reached by Dobay, Bendíková (2014) point to the fact that men do physical activities regularly two or three times per week in contrast to women. In this regard, Šimonek (2007) recommends that the adults aged 31-40 do five to seven hours of physical activity per week. What is more, there are other studies that emphasise the importance of 30-minute everyday physical activity in the daily routine of each individual (WHO, 2002).

Intensity and the abovementioned frequency of physical activity are important in terms of human health. Therefore, we were also interested in the intensity of physical activity. Both men (52.2 %;  $n = 177$ ) and women (49.1 %;  $n = 198$ ) stated mostly moderate intensity of doing physical activities. What is more, 30.7 % ( $n = 104$ ) of the men stated high intensity and only 17.1 % ( $n = 58$ ) of the women chose low intensity. Low intensity was prevalent in the women 35.2 % ( $n = 142$ ), while only 15.6 % ( $n = 63$ ) of them confirmed high intensity. There was a significant difference between the men and the women ( $\chi^2 = 41.309$ ;  $p < 0.01$ ;  $df=2$ ) as far as low intensity of physical activity is concerned (Figure 4). The findings reached by Dobay, Bendíková (2014) also confirmed significantly ( $p < 0.01$ ) lower intensity of physical activities performed by women in comparison to men.



**Fig. 4.** Intensity of physical activity ( $n = 742$ )

Concerning the way how the respondents perform physical activities, both men (68 %;  $n = 231$ ) and women (53 %;  $n = 214$ ) chose, with the highest percentage, the option “in an organised group”. There was a significant difference ( $p < 0.01$ ) in favour of the men ( $\chi^2 = 22.3299$ ;  $df=3$ ). The option “in an unorganised group” was chosen by 20 % ( $n = 67$ ) of the men and 25 % of the women ( $n = 101$ ). The option “on my own” was chosen by 7 % ( $n = 24$ ) of the men and 9 % ( $n = 36$ ) of the women, while 5 % ( $n = 17$ ) of the men and 13 % ( $n = 52$ ) of the women opted for “I do not care”. Considering also developmental psychology, we can confirm that as people get older, they prefer doing physical activity in organised groups. Furthermore, we believe that leisure-time physical activities, especially those which people carry out in groups, contribute to improvement of people’s health status as well as social inclusion, human relationships and social communication. It can be said that sports activities done in an organised or unorganised way present an effective tool that has a positive social and economic impact and serves for prevention in terms of health. Preventive measures are always less expensive for the society than the medical treatment itself (Willey et al., 2010; Labudová et al., 2012; Nemček, 2014).

#### 4. Conclusion

In terms of types of physical activities, there were significant differences ( $p < 0.01$ ) between the men and the women. Both sexes, with higher percentage in the men, prefer organised physical activities ( $p < 0.01$ ). There was also a difference ( $p < 0.01$ ) in favour of the men as far as the



frequency of physical activity is concerned. It was more regular. The intensity of physical activities is lower in the women than in the men ( $p < 0.01$ ).

## References

- Belej, 1992 – Belej, M. (1992). Vplyv pohybového režimu na zmeny všeobecnej pohybovej výkonnosti vysokoškoláčov. In *Acta Universitatis Palackianae Olomucensis. Gymnica XXII*. Olomouc, s. 107-110.
- Bendíková, 2011 – Bendíková, E. (2011). The current health status and reasons for student absence in physical and sports education classes. *Physical education and sport*, 21(1), 6-10.
- Bendíková, 2014 – Bendíková, E. (2014). Lifestyle, physical and sports education and health benefits of physical activity. *European researcher: international multidisciplinary journal*, 69(2-2), pp. 343-348.
- Blair et al., 2011 – Blair, S.N. et al. (2011). A tribute to Professor Jeremiah Morris: the Man WHO Invented the Field of Physical Activity Epidemiology. *Ann Epidemiol*, 20, pp. 651-660.
- Brtková, 1999 – Brtková, M. (1999). Pohybová aktivita a civilizačné ochorenia. *Zdravá škola*. Zborník prác z 5. vedeckej konferencie. Prešov, s. 60-65.
- Boržíková, 2006 – Boržíková, I. (2006). Diagnostika motorickej docility v školskej telesnej výchove. *Zborník prác z vedecko-pedagogickej konferencie učiteľov telesnej výchovy*. Minerva, Prešov, MPC.
- Dobay, Bendíková, 2014 – Dobay, B., Bendíková, E. (2014). Športové a rekreačné aktivity v životnom štýle dospelých. *Exercitatio Corporis–Motus–Salus*, 6(2), s. 19-31.
- Eurobarometer 72.3., 2010 – Eurobarometer 72.3. (2010). Sport and Physical Activity, [online]. Special eurobarometer 334/ Wave 72.3-TNS Opinion, Social, Avenue Herrmann Debroux, 40, 1160 Brussels, Belgium p. 98. [cit. 2015.03.12.]. URL: [http://ec.europa.eu/public\\_opinion/archi ves / ebs/ebs\\_334\\_en.pdf](http://ec.europa.eu/public_opinion/archi ves / ebs/ebs_334_en.pdf)
- Hofbauer, 2004 – Hofbauer, B. (2004). Děti, mládež a volný čas. Praha : Portál, 173 s.
- Chovanová, 2005 – Chovanová, E. (2005). Research on motoricity of children of the yonger school age. *Acta Universitatis Matthiae Belii, Physical education and sport*, 6(6).
- Chovanová, 2006 – Chovanová, E. (2006). Motorika detí mladšieho školského veku. Zborník z 5. ročníka konferencie s medzinárodnou účasťou, Telesná výchova a šport na univerzitách, SPU v Nitre, FZ a KI, Nitra.
- Kováč, 2000 – Kováč, S. (2000). Egészségnevelés. Liliium Aurum, Dunaszerdahely, 62 p.
- Kovács, 2004 – Kovács, T. A. (2004). A rekreáció elmélete és módszertana. Fitness Akadémia, Budapest, pp. 12-22.
- Labudová et al., 2012 – Labudová, J., Nemček, D., Antala, B. (2012). Pohyb pre zdravie. Bratislava: END, 104 s.
- Labudová et al., 2009 – Labudová, J., Nemček, D., Kraček, S. (2009). Pohybová koordinácia v každom veku. Bratislava : SZRTVŠ, 76 s.
- Mcelroy, 2002 – Mcelroy, M. (2002). Resistance to exercise. Kansas State University : Human Kinetics. 349 p.
- Müller, Rácz, 2011 – Müller, A., Rácz, I. (2011). Aerobic és Fitness irányzatok. Budapest, Pécs Dialóg Campus Kiadó. (TÁMOP – 4.1.2 – 08/2/A/KMR), 277 p.
- Müller et al., 2013 – Müller, A.B., Hidvégi, M., Váczi, P., Plachy, P., Juhász, J., Hajdú, I., Pál-Seres, J. (2013). Fitness trendek a rekreációban. In *Acta Academiae Agriensis*. XL., pp. 25-35.
- Nagy, Müller, 2016 – Nagy, Z.S., Müller, A. (2016). SJE Nemzetközi Tudományos Konferencia 2016. Szeptember 13-14, Komarno, Kézirat: The Quantification of the Derivation in the Volleyball Thematic Unit).
- Nemček, 2012 – Nemček, D. (2012). Aktívny životný štýl. In Labudová, Nemček, Antala (Ed.) Pohyb pre zdravie. Bratislava : END, s. 12-31.
- Nemček, 2014 – Nemček, D. (2014). Manažment aktivít športu pre všetkých v súčasnosti. In *Starogrécia kalokagatia a jej odkaz pre súčasnosť*. Bratislava: Kalokagatia na Slovensku, o.z., SAŠŠ a RA Santal, s. 7-13.
- Pedersen, 2009 – Pedersen, B. K. (2009). The diseasome of physical inactivity-and the role of myokines in muscle-fat cross talk. *Journal Physiol.*, pp. 5559-5568.

Szőkö, 2015 – Szőkö, I. (2015). Quality management system in educational process. In. Gómez Chova, L. López Martínez, I. Candel Torres, I. (eds.): 8th International Conference of Education, Research and Innovation. Seville (Spain) : IATED Academy, pp. 7282-7285.

Szőkö, 2016 – Szőkö, I. (2016). Educational evaluation in contemporary schools. Szeged: Belvedere Meridionale, 159 p.

Šimonek, 2007 – Šimonek, J. (2007). Celoživotná pohybová aktivita pre zdravie. In Labudová, J. a kol. Obsahová báza v programe šport a zdravie. Bratislava: UK FTVŠ, s. 30-31.

Tóthová, 2002 – Tóthová, D. (2002). Príčiny neúčasti žien na pravidelnej pohybovej aktivite. In Kolektív. Vybrané aspekty pohybovej činnosti obyvateľov SR. UK FTVŠ: Bratislava, s. 37-45.

Willey et al., 2010 – Willey, J. et al. (2010). Social Determinants of Physical Inactivity in the Northern Manhattan Study (NOMAS). *J. Community Health*, (35), pp. 602-608.

WHO, 2002 – WHO (2002). *Hýbte sa pre zdravie*. [online] [cit. 2015-02-12]. URL: <http://www.who.int/moveforhealth/end>