

## Original Article

### Opinions of primary school students on taking part in sport activities in selected regions of Slovakia

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#### Abstract

In this study we focused on primary school students; girls and boys of the 8<sup>th</sup> and the 9<sup>th</sup> grades in two selected regions in Slovakia (n = 2005, 1012 boys and 993 girls) and analysed their opinions on the amount of time, forms, motives and ways of taking part in sport activities (SA) in their spare time. The opinions were investigated using a questionnaire method in the academic year 2014/15. We assessed differences in terms of intersexuality (boys and girls), the place of school residence (town or village) and the region (the Central Slovak Region and the East Slovak Region). We found out that in accordance with modern tendencies, our respondents spend insufficient amount of time on SA. In terms of motives for taking part in SA, recreational sports in interest groups and collective sports with friends predominate. Their greatest stimuli come from their parents. The greatest differences in answers occurred when we examined motives which lead them towards taking part in SA. Despite this fact, the most frequent answer was “health improvement and body weight strength”. The most frequent negative aspect of taking part in SA was specified as “high financial demands”. Insignificant differences in answers occurred in forms of spending spare time, in factors preventing them from taking part in SA and in a choice of preferred location for SA. In terms of residence, insignificant differences were noted in the amount of time spent on SA and their forms during weekends. From a regional perspective, insignificant differences occurred in the amount of time spent on SA and their form and character during weekends.

**Key words:** amount of time, forms, motives, possibilities, primary school boys and girls from urban and rural schools

#### Introduction

Sport activities of children and young people performed at school and as extracurricular activities have changed significantly over the last ten or twenty years. Many children are unconcerned about physical education, sport activities and sport. Passive forms of spare time activities include watching TV and playing computer games, surfing the web or chatting on a mobile phone predominate. Favourite activities include meeting in peer groups and parties unfortunately; they do not always do appropriate activities, namely sports (Miklánková et al., 2009). There is strong evidence to demonstrate the physical and psychological benefits of sport activities. Despite the fact that people are aware of these positive benefits, the number of obese people, people with body posture problems and low motion literacy, the less psychologically resilient are all on the increase. At the same time, there are still more and more people who demand financial and material security and are concerned with their appearance. Numerous foreign and national studies prove that low or even sub-standard sport activities, altogether with obesity, are increasing. E.g. Ruston et al. (2004) in their research carried out at the turn of millennia noticed an alarming increase in obesity in Great Britain. According to their findings, as much as two thirds of adult men and more than a half of adult women are overweight and even obese. According to the data from the annual report of the Public Health Authority in Slovak Republic from 2013 ([http://www.uvzsr.sk/docs/vs/vyrocná\\_správa\\_2013.pdf](http://www.uvzsr.sk/docs/vs/vyrocná_správa_2013.pdf)), 13 – 15% of Slovak children aged from 11 to 15 years are obese and overweight. 20% of people are overweight in the age group from 18 to 24 years and 41.74% of people are obese in the age group from 55 to 64 years. 25.6 % suffer from obesity in the age group ranging from 18 to 64 years, and 36.2 % are overweight. As stated by Nadera et al. (2008) children at the age of 9 spend more than three hours on sport activities during the working week and weekend and their activity decreases with advancing age. At the age of 15 they participate only 49 minutes per day during the week and even less during the weekend – only 35 minutes per day. According to WHO (World Health Organization, 2010), a physical inactivity is the fourth greatest mortality factor in the world. WHO further mentions that the increase of lifestyle diseases shows a direct dependence of lifestyle on the lack of movement in most European countries. The study of Hagströmer et al. (2010) compares the level of sport activities in terms of intensity in Sweden (n=1172) and the US (n=2925) and states that their research group analysed greatly prefer sedentary and low intensity activities. The results of the international experimental study HBSC (The Health Behaviour in School) by Currie et al. (2012) show, that a large proportion of schoolchildren are not sufficiently active as far as sport

activities are concerned. As stated by the above mentioned study, almost 50% of girls intensively exercise less than five times a week and their activity even decreases with advancing age. Results of the survey STEM/MARK and VZP (T/N: the major health insurance company in the Czech Republic) in 2013 (n=2058) show that 55% of men's and 60% of women's waistline reaches hazardous levels and a significant increase was recorded between 2012 and 2013 (www.slideshare.net). The research results of Peráčková (2008) and Antala et al. (2012) show that PE lessons at schools are the only opportunity for many children to take part in sport activities – and this is considered alarming. Bendíková (2014) discovered in a group of high-school students that only 20% of girls take part in sport activities on regular basis, either recreationally or competitively. These facts have effect on the mild, but gradual decrease of physical fitness in the majority of the population. Similar figures on motion efficiency amongst schoolchildren are reported in the Raczek, Mynarski and Ljach's comparative study (2002). According to Frömel, Mitaš and Kerr (2009), sport activities have a wide spectrum of themes and they roughly reflect the need of motion, health prevention, and individual self-fulfilment and so on. The influence of those motives can differ depending on the age, sex, social aspect and so on. It could be said, that a natural need of motion is more typical for young people than for adults (so-called inner motivation impulse) (Sekot, 2009). According to Gúčík (2000), dominant factors of motivation for doing sport activities amongst adults are relaxation, exploring, health care and prevention, acquiring culture and sport experiences and social communication. The problems of motivation of children for the participation in sports activities were solved by Soares, Antunnes and Van Den Tillaar (2013), Da Costa, Hirota and De Marco (2015), Martins, Honório, Cardoso and Duarte (2014). Young people find school a very important factor, which significantly influences children's relationship towards sport and their knowledge on the matter. Children spend a significant amount of time at school, therefore it is essential and even inevitable to offer them possibilities, inform and lead students towards activities, which would effectively lay foundations of a healthy lifestyle (Fox, 2004, Sharma, 2006, Aghyppo, Tkachow and Orlenko, 2016). This analysis is a part of a project *KEGA 002UMB-4/2014 "Innovation of sport activities in primary school students carried out in natural environment through playful activities using a global positioning system"* launched at the Department of Physical Education and Sports at the Faculty of Arts at Matej Bel University in Banská Bystrica.

The goal of this study was to determine and analyse opinions of boys and girls in the 8<sup>th</sup> and the 9<sup>th</sup> grades from primary schools of two Slovak regions of the amount of time, motives, forms and possibilities of taking part in sport activities in their spare time.

### Materials and methods

**Research group** – 2485 primary school boys and girls in 8<sup>th</sup> and 9<sup>th</sup> grades from urban and rural schools from the Central and East Slovak Regions participate in the public survey carried out at the end of the academic year 2014/2015. The research consisted of 2005 correctly completed forms. In terms of sex, there were 993 girls and 112 boys with an average age of 14.72 years. We evaluated students from 28 primary schools from 8 towns and districts. Residential division of primary schools abode by individual statuses of municipalities in accordance with the Act of the National Council of the Slovak Republic No. 369/1990 Coll. on Municipal Establishment amended by National Council of the Slovak Republic, effective as from 1<sup>st</sup> of July 2014. In terms of the facts given above, our research consisted of 12 urban and 14 rural schools. In terms of the regional aspect, 18 schools were from the region of Central Slovakia and 10 from the region of East Slovakia. Of the total number of girls (n=993), 556 of them came from Central Slovakia and 437 from the East Slovakia. In terms of the school's residence 663 were urban and 330 rural schools. Of the total number of boys (n=1012), 575 came from the Central Slovak Region and 437 from the East Slovak Region. In terms of the school's residence 655 of them attended urban schools and 357 rural schools.

**Questionnaire** – the design was based on questions used in researches carried out by Antala et al. (2012), Bendíková (2014) a Nadera et al. (2008). It contained 10 closed questions. Students completed their answers in pre-printed forms.

**Data analysis** – students' answers were compared in three aspects:

- 1/ considering the intersexual differences (schoolboys and schoolgirls);
- 2/ considering the school residence (urban and rural schools);
- 3/ considering the geographical location (the Central Slovak Region and the East Slovak Region).

The results were quantified by means of percentage. A statistics analysis was carried out by the TAP 3 programme of the Gamo Banská Bystrica Company. The results were then evaluated by means of a Chi-Quadrat-Test. The level of statistical significance was set to  $p < 0.1$  and  $p < 0.5$ .

### Results

Firstly we wanted to determine what amount of time primary school boys and girls devoted to sport activities in their spare time during the working week. Evaluation of responses (as shown in Figure 1) showed the fact, that the girls spend less time doing sport activities than boys during the working week (46.73% of girls in intervals of 1 to 2 hours compared to 43.08% of boys, who take part in sport activities for more than two hours). With regard to the regional aspect we noted that the students from the Central Slovak Region spend more

time on sport activities than students from the East. All three compared characteristics showing statistical significance at a value of  $p < 0.01$  (as described in Table 1).

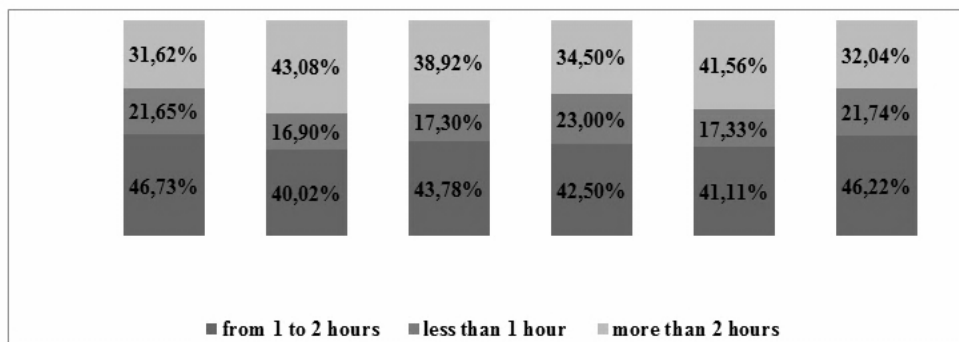


Figure 1 Amount of time devoted to sport activities during the working week (Hours)

Subsequently, we were interested in the amount of time primary school boys and girls devoted to sport activities during the weekend as part of their spare time. It was discovered (as shown in Figure 2) that more than 42.39% of students spend more than 5 hours on sport activities every day. The highest percentage was observed in the table field of 3 to 5 hours (41.79%). Significant differences were noted in students' responses with regard to school residence and Slovak regions. Considering statistics, the only significant difference in students' responses occurs at a value of  $p < 0,01$  (as described in Table 1).

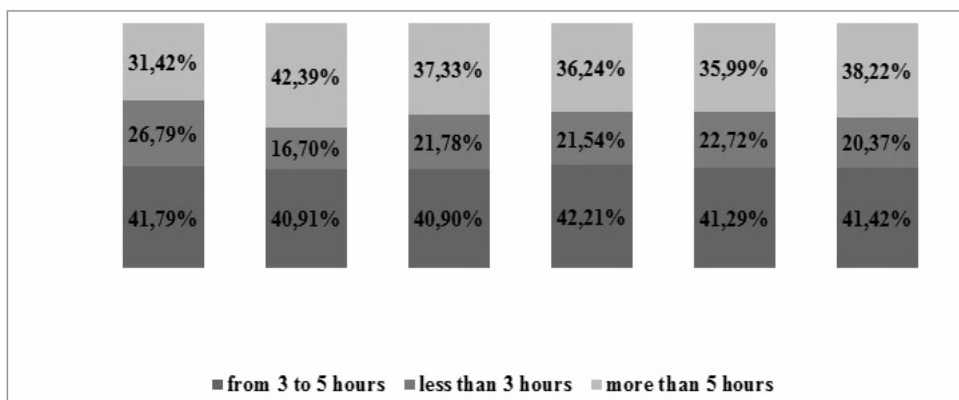


Figure 2 Amount of time devoted to sport activities at a weekend in one day (Hours)

In identifying forms of spare time (passively or actively) the results show (as shown in Figure 3) that approximately 18% of all respondents prefer a passive form of spending their leisure or spare time. More than 10% choose an active form and almost  $\frac{3}{4}$  of boys and girls mention that their spare time is spent equally passively and actively. There were no statistically significant differences in responses regarding urban and rural schools. On the contrary, the answers concerning the Slovak regions were statistically significant at a value of  $p < 0,01$  (as described in Table 1).

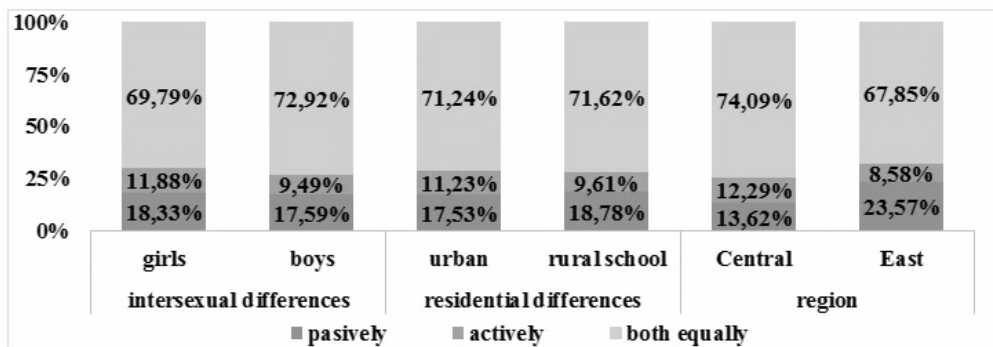


Figure 3 Forms of spare time activities

Furthermore, the research focused on the evaluation of students' opinions on whether they like to take part in their sport activities collectively or rather individually. Boys (as shown in Figure 4) prefer the collective form in more than 50% and in 47% of girls. Even with regard to residential and regional differences we

discovered, that the respondents mostly prefer collective form of taking part in sport activities. In conclusion in relation to the statistical evaluation, it can be stated, that only the criterion of sexual differences was statistically significant at a value of  $p < 0,05$ . The differences were insignificant in the other two criteria (as described in Table 1).

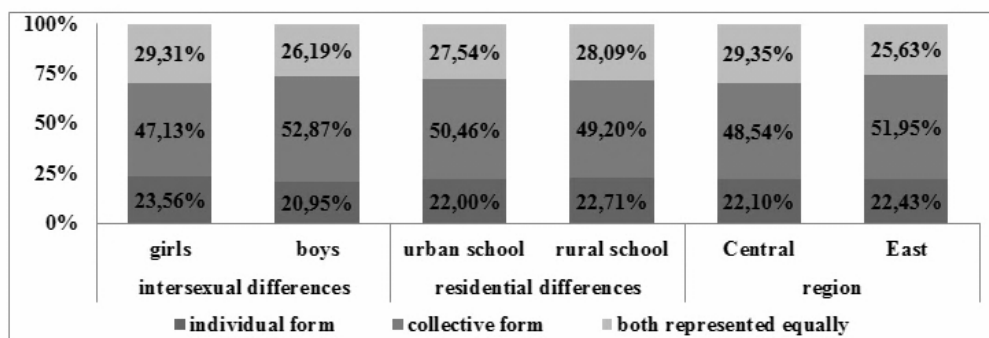


Figure 4 Individual and collective forms of sport activities

When ascertaining the character of sport activities we found out (as shown in Figure 5), that in general, the recreational nature of taking part in SA is most frequently represented. However, the boys prefer the competitive nature in comparison to the girls (33.20%). In respect of residential and regional factor, the responses are similar with a higher tendency towards the recreational nature of SA. With regard to the statistical evaluation it can be stated, that differences in responses with respect to boys, girls and residential factor show statistical significance at a value of  $p < 0,01$ , resp.  $p < 0,05$ . Regional differences do not prove any statistical difference (as described in Table 1).

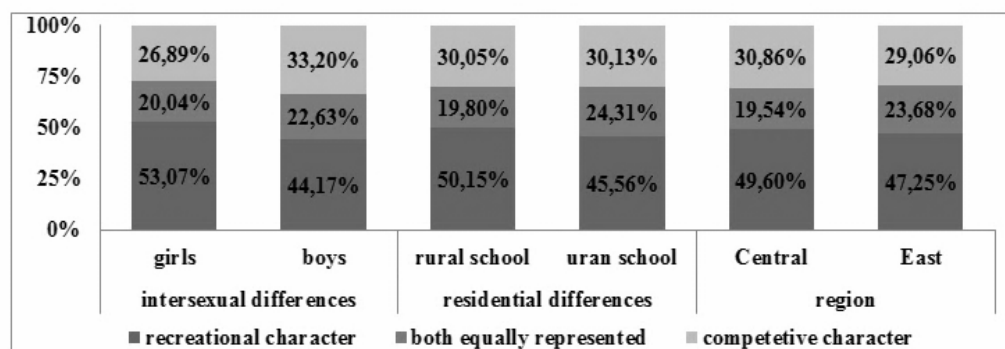


Figure 5 Features of sport activities

In terms of motives for taking part in sport activities the research was also focused on which person the respondents attach the most importance when participating in sport activities. We discovered that the least favourable is to take part in sport activities all alone, or with their parents. Boys and girls prefer taking part in sport activities with their friends, peers, school mates and so on. The response rate did not drop below 62% not even in a single criterion (as shown in Figure 6). In conclusion, with regard to the statistical evaluation it can be stated, that all the criteria of difference among the respondents show a statistical significance at a value of  $p < 0.01$  (as described in Table 1).

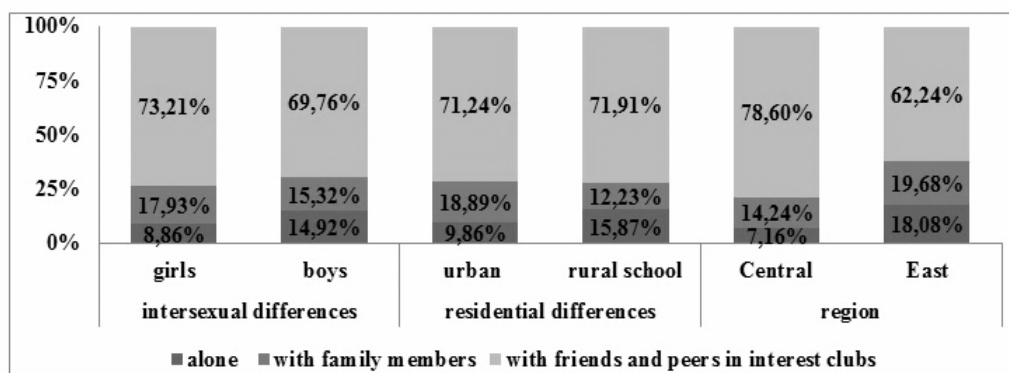


Figure 6 Companions at sport activities

Further research investigated what type of person are the respondents influenced by to a greatest extent when taking part in sport activities (as shown in Figure 7). The percentage of responses with regard to all evaluated criteria spoke against PE teachers. Only the 20% level was recorded in respondents from the East Slovak Region. The highest percentage was recorded in favour of parents. In respect of statistical evaluation it can be stated, that all evaluated criteria of the difference in responses show statistical significance at a value of  $p < 0.01$  (as described in Table 1).

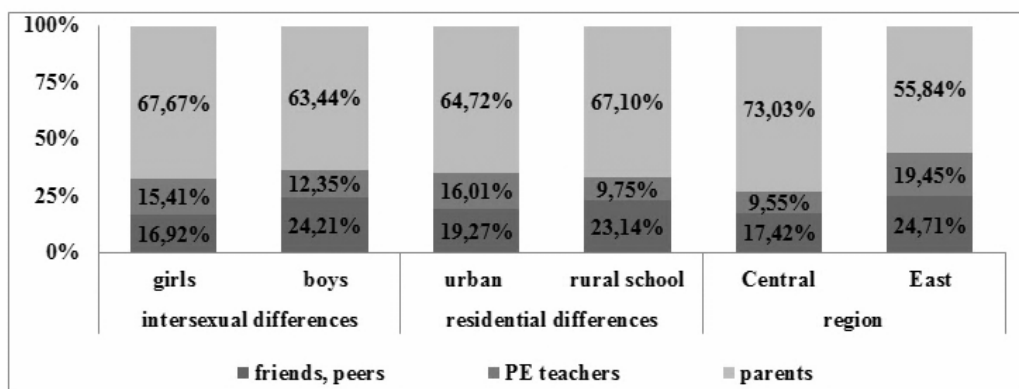


Figure 7 Influencers in taking part in sport activities

The last question of the research was to determine a motive which encourages the respondents to take part in sport activities (as shown in Figure 8). We found the greatest differences in percentage of responses in individually examined and compared criteria. The smallest difference occurred when comparing boys and girls. Both groups preferred health improvement, appearance was placed second, social contacts and relaxing was ranked at third place. The respondents from the countryside were in favour of health (up to 76%) in comparison to the respondents from the town who rate their appearance (45%). The East Slovak Region respondents' main motive for taking part in sport activities (64%) was their health improvement and physical fitness strength. The responses such as "bodyweight reduction and figure improvement", or "health improvement and physical fitness strength" were almost of the same frequency in respondents from the East Slovak Region (49% or 41%). In terms of statistical evaluation it can be stated, that all evaluated criteria of difference in respondents' responses show statistical significance. Comparison of sexes was at a value of  $p < 0.05$  and other criteria at a value of  $p < 0.01$  (as described in Table 1).

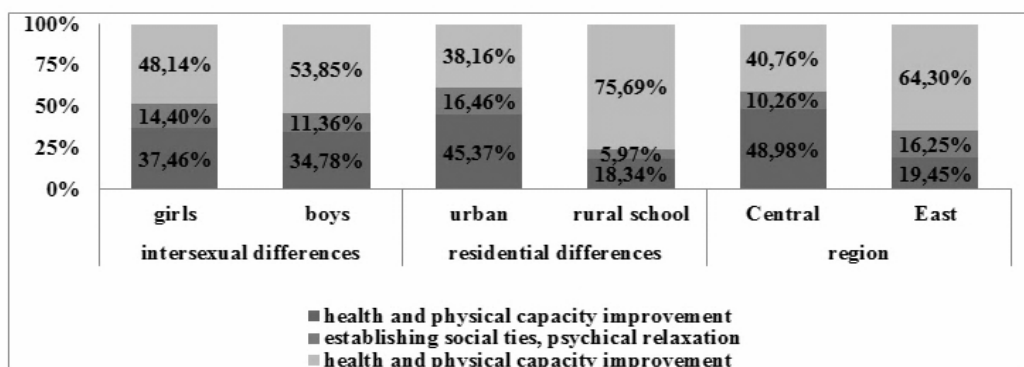


Figure 8 Motives for taking part in sport activities

At the end of our research we investigated the respondents' opinions on the possibilities of taking part in sport activities in their spare time. We firstly determined the main factor, which prevents them from participating in sport activities in their spare time. Both, boys and girls determined as a dominant factor (as shown in Figure 9) "high financial demands" when taking part in sport activities. Other two possibilities were represented at the approximately same level 27 – 29%. In regard to the residence we found out that economical factor dominates in towns, while in rural areas it is the poor availability of sport premises. Similar hierarchy, both economical and spatial, was assessed in comparison of the Central and East Slovak Region. Insignificant difference was found in statistical evaluation and confrontation between boys and girls. On the other hand, we found statistically significant difference in other two criteria at a value of  $p < 0.01$  (as described in Table 1).

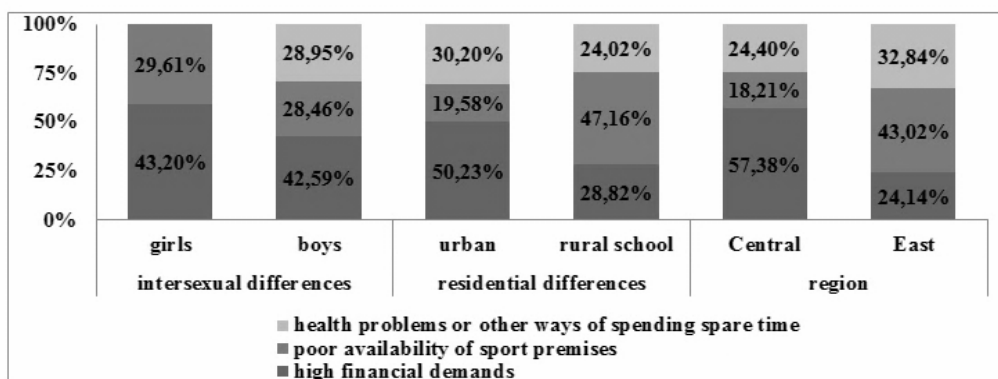


Figure 9 Factors preventing students from taking part in sport activities

The last section of our research was to investigate where the respondents can take part in sport activities (as shown in Figure 10).

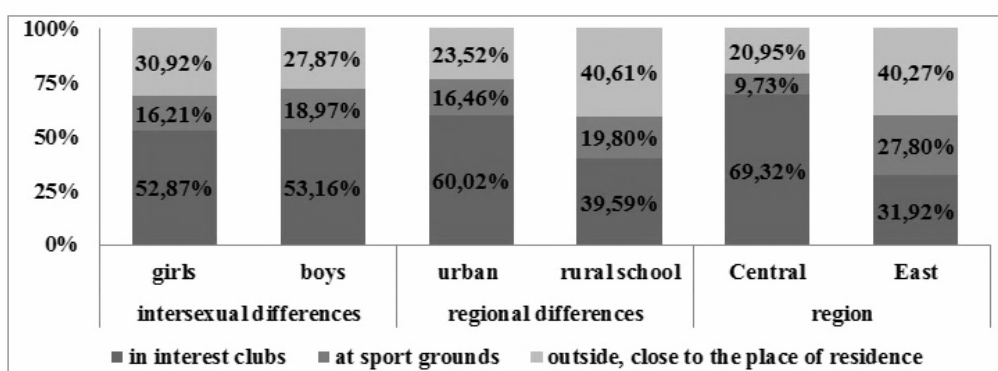


Figure 10 Location of the sport activities

We found out, that primary school girls and boys mostly take part in sport activities with their friends in interest groups. Evaluating the place of residence it was shown, that young people from rural schools prefer places close to their homes. In terms of regions similar results occurred in evaluation of responses. Respondents from the East Slovak Region also preferred activities close to their place of residence. Young people from the Central Slovak Region mostly participate in sports within their interest groups (69.32%). It can be stated that the residential and regional criteria with regard to the differences in responses show statistical significance at a value of  $p < 0.01$ . In terms of sex, no statistical significance was found (as described in Table 1).

Table 1. Statistical significance Chi –Quadrat-Test (value p)

Item	boys/girls	urban/rural school	Central/East
Question No. 1	** p= 5,85 E-07	** p= 6,24 E-03	** p= 4,78E-05
Question No. 2	** p= 2,13 E-09	n p= 0,84	n p= 0,38
Question No. 3	n p= 0,17	n p= 0,46	** p= 1,34E-08
Question No. 4	* p= 0,03	n p= 0,86	n p= 0,16
Question No. 5	** p= 2,75 E-04	* p= 0,04	n p= 0,07
Question No. 6	** p= 1,04 E-04	** p= 2,55 E-06	** p= 2,38E-17
Question No. 7	** p= 1,44 E-04	** p= 2,70 E-04	** p= 6,79E-16
Question No. 8	* p=0,02	** p= 4,92 E-56	** p= 3,37E-41
Question No. 9	n p= 0,66	** p= 3,01 E-38	** p= 1,03E-53
Question No. 10	n p= 0,15	** p= 8,24 E-19	** p= 1,93E-62

Legend: statistical significance -  $p < 0.01 = **$ ,  $p < 0.05, = *$ , n=statistically insignificant

## Discussion

Comparing our findings with other researchers it was proved, that the extent of spare time presented by our respondents corresponds with the findings of study by Nadera et al. (2008). As stated in their study, children of the age of 9-10 years spend more than three hours on sport activities during the working week and weekends and their activities decrease with advancing age. At the age of 15 years they participate only 49 minutes per day during the working week and even less during the weekend – only 35 minutes per day. Other authors such as Pratt et al. (1999), Sigmund et al. (2007), Biddle et al. (2009) also stated that the low percentage of sport activities in their spare time during the working week should be the reason for increasing parental support and e.g. lead to various interventions from the state, national and international institutions.

We agree with Suggs-Mc Intyre (2011) that in this case, legislative, political and economic climate in the state is a significant factor, which can promote and implement preventive programmes supporting healthy lifestyle by means of various institutions. Considering the form of sport activities taken part in the spare time (individual vs. collective) and primary school girls as a sample group, our research results are not in line with other authors' findings. "Our" girls incline towards collective sports, which is not in accordance with other researches such as Slezák and Melicher (2008), Lenková, et al. (2010), Nemeč and Adamčák, (2013), Beřák, (2014). These studies focus on interests of primary school boys and girls with regard to their favourite sport activities performed during PE lessons or in their spare time. They concluded that girls at this age prefer more individual sports such as aerobics, dance and so on.

When compared with Bendíková's research (2014) examining a group of high-school girls, it can be stated that more than 20% in our sample group participate in recreational sport activities. A relatively low percentage of boys and girls, who take part in sport activities professionally might indicate, that a current population is not willing to go through a regular training programme. The most interesting part of our research is the area of motives leading children to sport activities. As it was already mentioned when evaluating the question on the amount of time devoted to sport activities and also their preference it was proved that it is difficult for young people to find a motive for participating in sport activities within themselves. They much better respond to impulses coming from their environment and particularly from their peers. However, it is necessary to realise that the peer groups not always positively influence activities of an individual. In our opinion, the most important aspect is parental support.

Pařízková et al. (2007) holds the opinion, that if children spent their spare time walking with parents or participating in other sport activities, it would be only natural that they would adopt a positive attitude towards sport activities. Moore et al. (1991) found out that parental influence over sport activities was stronger on the part of active fathers than active mothers. The most powerful was the influence of families with both active parents, whilst the given difference was sixfold compared with children with both passive parents. The results of Rychtecký and Fialová (2004) are a little bit paradoxical compared with our findings. According to these researchers, a general stimulation for sport activities in primary school boys and girls comes from a wide range of verified sport activities, interventions from school, family, depending on social conditions, but also influenced by PE teachers. Stimulus from peers is completely absent and therefore with respect to our results, we cannot agree with the fact, that the school and the school environment is a dominant motivating factor.

With respect to the motives for sport activities "health and physical fitness improvement" predominate, which disagrees with Stackeová's findings (2008). According to her research on the greatest factor motivating people frequenting fitness centres, their primary motivation was bodyweight reduction. Supposedly, such a difference was caused by non-homogeneity of both research groups. In relation to the question on the form of a sport activity, a high number of boys and girls preferred the recreational form, which is not consistent with the low percentage of answer in favour of psychical relaxation. The lowest number of responses given to the option "establishing social relations and psychical relaxation during sport activities" might have a negative connotation. Several researches (Martinsen, 1994; Fox, 1999; Meyer & Broocks, 2000) have proved a positive and anti-depressive impact on the moderate-intensity of physical activities. Taking part in sport activities in interest groups was the most dominant option chosen in the question on opportunities of performing sport activities. Soares, Antunnes and Van Den Tillaar (2013) identified the effect of gender on the motivations for the practice of competition in school sports. Their results showed very positive scores for both genders with regard to the motives: fun and enjoyment. On the other hand "to be a sport star or sport champion", "to be popular" and "I like competition" were more important for boys than girls. Girls prefer friendship, fitness and sociability.

Interest groups are frequently offered at all schools, including primary schools examined in this study. The study by Reed and Philips (2006) also confirms our findings. It concludes that students who have appropriate and well-equipped sports grounds at their disposal in their close surroundings are more physically active. We consider this to be a very important fact. An important aspect to consider is that the respondents mention "high financial demands" as a dominant factor preventing them from taking part in sport activities.

We suppose that state of environment is another factor in which current generation can perform sport activities. Unfavourable economic situation in our society negatively influences quality and conditions for taking part in sport activities close to their surroundings (residence and school). Persistent financial shortage in schools causes problems in innovation, modernization of equipment or providing new teaching aids in appropriate number and quality. This is in contrast with various well-equipped sport centres, which usually satisfy high

standards, but their prices are often too high to be paid by the average population on a regular basis. The conditions for the movement of sport and exercise, meaning the place where young people go, play an important role in forming a positive attitude towards exercise and hence to a sport activity itself. In terms of respect of the differences among all the examined factors, insignificant differences occurred in the intersexual aspect, forms of spending spare time and factors which prevent children from taking part in sport activities and choosing places for SA.

In accord with studies carried out by Antala et al. (2012), the difference in the amount of time spent on sport activities in favour of boys is considered the most important. Insignificant differences were also found with regard to the residential aspect, more precisely in the amount of time spent on SA during weekends and in the forms of spending spare time. In their answers to the question on motives for taking part in sport activities, children from rural primary schools preferred health and children from urban schools a nice figure. These differences are considered the most significant. Opinions of urban children are probably more influenced by the environment they live in. Some authors (Kučera, 1999; Liba & Uherová, 2003; Biddle et al., 2009; Bebcáková et al. 2012) indicate that the lack or absence of exercise poses a threat to a human body. Therefore, it is important for children to perceive their motives for taking part in sport activities in accordance with those implications.

Physical inactivity and sedentary way of life double the risk of cardiovascular diseases, diabetes, and obesity; increase the risk of colon cancer, hypertension, osteoporosis, depression or anxiety (Ištoňová, 2008). In terms of the regional aspect, insignificant differences were found in the amount of time spent on sport activities during weekends and in forms and character of spending spare time. A significant contradiction occurred in answers to the eighth and ninth question. The fact, that rural children would prefer their surroundings (nature) to a room is absolutely reasonable. However, the finding that respondents from the Central Slovak Region would markedly tend to interest groups is very interesting. It can be explained by the fact that probably not even schools but also interest clubs and particularly institutions offer attractive spare time activities and more actively intervene into young people's lives.

As stated by Hofbauer (2004), specific institutions focused on offering spare time activities for young people to create favourable conditions if their concept and following practical implementation are open. Thus, their approach to various age groups with numerous interests can be complex and motivating towards diversified contents and methodologies. Another possible reason could be the fact that young people from the countryside grow up in closer contact and in conformity with their environment. It makes them contribute to its development and create even stronger ties. We experience more often, that urban children show rather neutral attitude towards their environment and are more liable to undesirable influences. That is the way in which parents intervene in this area and search for ways on how to change such an attitude. Therefore, they opt for a form of employment in the interest clubs.

## Conclusion

Our aim to discover what role sport activities play in young people's lives was carried out on a relatively wide spectrum of young people (2005 respondents). Based on our findings and regarding the fact, that their responses can be considered as relevant and acceptable, we can state the following conclusions:

1/ In regard to the extent of time devoted to sport activities it can be stated, that today's young people attending primary schools in the Central and East Slovak Region spend an insufficient amount of time on sport activities, while primary school girls spend less time weekly on SA than boys.

2/ In terms of the form of SA, primary school boys and girls tend to spend their spare time rather passively and mainly prefer a particular collective way of participating in sport activities.

3/ Primary school boys and girls highly prefer being motivated for sport activities by their friends, peers, school mates and so on. Parents are their greatest stimulus, in contrast to PE teachers. Only 13.7% of all respondents identified them as motivating. The main reason why students cannot participate in sport activities selected the option "high financial demands" (43%).

4/ With regard to the possibility of taking part in SA as the most convenient was the opportunity to perform a sport activity in interest clubs.

5/ The greatest differences between residential and regional criterion occurred in the area of motives for taking part in sport activities or more precisely, in the place preference for sport activities. Considering our findings it is supposed that a positive attitude towards a regular sport activity which is associated with the principles of a healthy lifestyle should be instilled in one's mind since early childhood. Therefore, there is a need to integrate sport activities into everyday life in the entire society. It is necessary to achieve the phase, when primary school boys and girls would take part in sport activities not only during PE lessons but also in their spare time. Seeing the motivators for sport activities are currently much poorer than before, in this respect it is very important to stimulate a new generation. Apart from the health aspect, taking part in sport activities improves physical fitness, boosts self-confidence, and gives feelings of satisfaction and relaxation. It was discovered that people's attitudes towards sport activities in their adulthood highly depend on the opinions and attitudes formed during their adolescent age.



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