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ORIGINAL ARTICLE

Exploring physical activity of female secondary school students from selected regions of Slovakia

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ABSTRACT

The aim of study was to analyse and compare physical activity of female secondary school students from selected regions of Slovakia. The study group consisted of 1,972 female secondary school students from grammar and vocational schools from five regions of Slovakia. The study data were analysed for each region by using chi-square test at $p < .01$, $p < .05$. During the work week, 52.43% of study group have on average 1 to 3 hours of leisure time. The most significant difference in the amount of leisure time, between the work week and the weekend, was recorded in the Banská Bystrica Region, Košice Region, Prešov Region and Žilina Region with 40% of the female students stating that they have more than 5 hours/ day of leisure time at the weekend. Within the Bratislava Region, the amount of weekend leisure time only increased by 11% ($p < .01$). The female students from the Bratislava Region predominantly (60.62%) spend their leisure time passively, while most of female students from the Banská Bystrica Region (56.57%) and Košice Region (60.25%) spend their leisure time actively. Significant differences between the female students from the Bratislava Region and female students from the other regions were also recorded in other areas ($p < .01$, $p < .05$).
Keywords: Physical education, Female students, Period of adolescence, Physical activity, Secondary school.

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INTRODUCTION

Physical activity is closely related to health, quality of life and lifestyle and its absence lowers physical performance, which has been stagnating in Slovakia (Nowák, 1997). This tendency has been observed not only in the general student population, but also in the actively sporting population (Antala et al., 2014). The lack of physical activity affects human health and has a significant impact on physical fitness and performance. Although regular physical activity can serve as a preventive tool, 70% of student population spends their leisure time in a sedentary behaviour, which leads to physical inactivity in adulthood and old age (Hallal et al., 2006, Belanger et al., 2009). Physical inactivity may trigger health risks, since it consumes little energy and leads to a deteriorating physical condition (Hills et al., 2007, Mackett, Paskins, 2008).

An inactive student population has a lower likelihood of being motivated to perform regular physical activity. Given this fact, it is necessary to identify the behavioural aspects which contribute to regular physical activity in the student population (Vašíčková et al., 2014). The identification of factors, which affects the movement behaviour and maintains an adequate level of physical activity, is crucial in developing strategies to support physical activities.

Moderate-to-vigorous physical activity is very important for health and it is indispensable in the period of personality development (Hendl, Dobrý, 2011) because healthy lifestyle based on regular physical activity tends to persist from the stage of adolescence into the other stages of personality development. Long-term moderate-to-vigorous physical activity improves academic performance (Basch, 2010) and health indicators, such as bone density, metabolism and body weight (Wiley, Blackwell, 2010). Based on the listed recommendations, it is very important to respect determinants of the general and actively sporting populations, mainly when it comes to adopting and maintaining positive attitudes towards physical activity (Hubinák, 2011; Uherová, 2012).

In the period of adolescence, the volume of physical activity tends to fall below the recommended amount to only 6 to 8 hours/ week, which is just 1 hour/ day (Teplý, 1995). Bendíková, Kostencká (2013) recommend that adolescents should be physically active for 3 hours/ day and World Health Organization (2010) explains that more than 1 hour/ day of moderate-to-vigorous physical activity provides many health benefits. However, aerobic physical activity should also be increased. Yet, in spite of these recommendations, the regular physical activity of the general student population has significantly decreased (Mitchell et al., 2012, Corder et al., 2015). Harding et al. (2015) point to the decrease in moderate-to-vigorous physical activity, predominantly in the male student population. This finding has been refuted by Currie et al. (2012) who have discovered that in Slovakia, the male student population was more physically active than the female student population. A positive fact is the increasing tendency for physical activity in the female population, which has increased by 5%, 3%, and 1% (for girls aged 11, 13, and 15), however, the volume of physical activity in the physical activity regimen of student population is still considered low (National Action Plan, 2017). During the period of adolescence, 81% of student population was physically inactive, performing moderate-to-vigorous physical activity for less than 1 hour/ day (World Health Organization, 2010).

Nonetheless, the physical activity affects 50% of health and it is considered as one of the basic biological needs. However, this need cannot be met due to the insufficient volume of physical activity, which tendency is now stagnating rather than increasing (Blažej, 2004). The failure to meet this need leads to increased incidence of diseases in the student population (Hills et al., 2007).

The aim of study was to analyse and compare physical activity of female secondary school students from selected regions of Slovakia.

MATERIAL AND METHODS

Participants

The study group consisted of female secondary school students with the Slovak as the language of instruction. 1,972 correctly filled-in surveys were included in the study data interpretation process. The study group consisted of the female final year (4th) students of grammar and vocational schools with the average age of 18.68 (±). A more detailed description of the study group from the point of view of each region is included in Table 1.

Table 1. Description of study group according to regions of Slovakia.

	Study group					
Region	B. Bystrica	Bratislava	Košice	Prešov	Žilina	Total number
Total number	426	292	161	606	487	1,972

Legend: B. Bystrica - Banská Bystrica.

Measures

When collecting the data, the method of survey was used. It was created purposely and consisted of 8 survey items, concerned with physical activity and secondary school students. Inspired by several authors, the survey was created and its content was related to the female secondary school students, attitudes about leisure time and physical activity (Nemec, Adamčák, 2013; Soares et al., 2013). The basic information about the identity was not taken, so that the survey was answered objectively. In addition, the survey was given to each female secondary school student who inscribed the answers, within the pre-printed forms. After inscribing the answers, the survey was given to authors of study.

Procedures

The study data were collected through the survey distributed from January to December, 2019. The study group consisted of female secondary school students from grammar and vocational schools from five regions of Slovakia:

- Western Slovakia - Bratislava Region (Ba);
- Northern Slovakia - Žilina Region (Za);
- Central Slovakia - Banská Bystrica Region (Bb);
- Eastern Slovakia - Košice Region (Ke), Prešov Region (Po).

Besides the geographical division of Slovakia, the decision of choosing these regions as the study group was also influenced by factors, such as:

- The region of the capital city - Bratislava, is the richest region in Slovakia. The gross domestic product in purchasing power parity is 2.5 times higher than the average in Slovakia, while the Prešov region has been the poorest region for many years. What is more, it amounts to 58%, while other regions are more lagging behind the average of Slovakia (Banská Bystrica Region - 70%, Košice Region - 77% (Doležal, 2016).
- The unemployment rate in eastern Slovakia differs significantly in Slovakia. Even though, the unemployment has declined, compared to the previous period (2017) (9.9 % - Prešov Region, 9.7% - Košice Region, 8.7% - Banská Bystrica Region), as the average unemployment rate in the other regions has been around 3.7% (Marcinčin, 2018).

Analysis

The survey was generated and interpreted using the Tap3 programme, designed by the company - Gamo Banská Bystrica. The method of percentage (%) and arithmetic mean (±) was used, while the difference between each region was evaluated by method of inductive statistics - chi-square test, at the level of significance of $p < .01$ a $p < .05$.

RESULTS

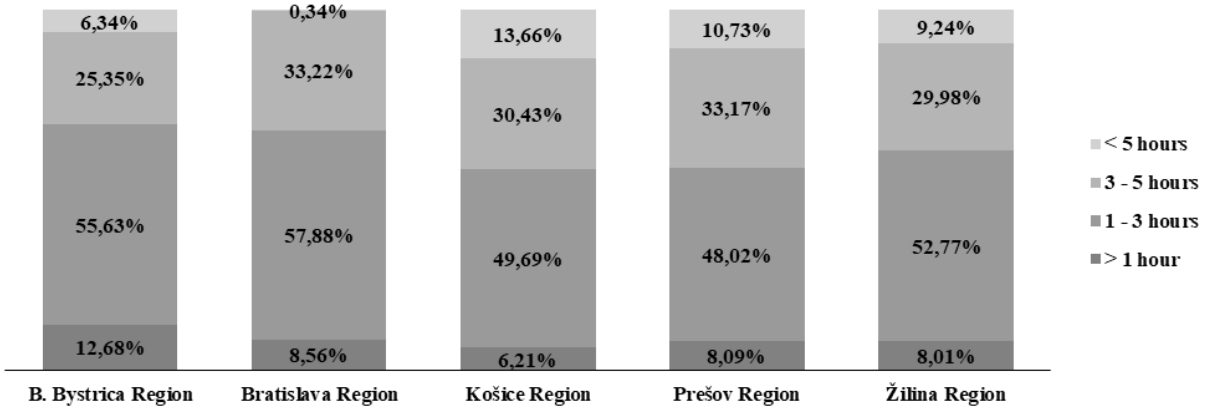

Figure 1. Average leisure time in the study group during the work week (hours/ day).

The first part of the survey focused on the number of hours/ days devoted to the leisure time in the study group from the selected regions of Slovakia (Figure 1). The response of more than 5 hours/ day was the most frequent in the study group from eastern Slovakia (Košice Region - 13.66% and Prešov Region - 10.73%), the least frequent in the study group from western Slovakia (Bratislava Region - .34%). The most frequent response in the study group (overall) was 1 to 3 hours, ranging from 48.02% (Prešov Region) to 57.88% (Bratislava Region). As many as 12.68% of study group (Banská Bystrica Region) stated that they had less than 1 hour/ day of leisure time during the work week. The study results of the statistical data processing included in Table 2 show that statistically significant differences were not recorded in the study groups from northern (Žilina Region) and eastern (Košice Region, Prešov Region) Slovakia ($p > .05$) (Table 2).

Table 2. Statistical interpretation of average leisure time in the study group (hours/ work week).

	Study group				
Region	B. Bystrica	Bratislava	Košice	Žilina	Prešov
B. Bystrica		5.02E-05**	3.07E-03**	2.46E-02*	3.27E-04**
Bratislava	5.02E-05**		2.18E-08**	9.42E-06**	3.73E-07**
Košice	3.07E-03**	2.18E-08**		3.86E-01	5.90E-01
Žilina	2.46E-02*	9.42E-06**	3.86E-01		4.44E-01
Prešov	3.27E-04**	3.73E-07**	5.90E-01	4.44E-01	

*Legend: B. Bystrica - Banská Bystrica; ** - Statistical significance at the level of p < .01; * - Statistical significance at the level of p < .05.*

In addition, the study focused on the number of hours/ day the study group had during the weekend (Figure 2). The most positive change in the amount of leisure time between the weekend and work week was recorded in the survey item - *"more than 5 hours/ day"* in the entire study group, while the increase recorded

in regions of Banská Bystrica, Košice, Prešov and Žilina was greater than 40 %. Within the Bratislava Region, the amount of leisure time increased only by 11%. It relates to the fact that the smallest change, in the amount of leisure time (work week vs. weekend) was recorded only in Bratislava Region. The statistical interpretation included in Table 3 shows that statistically significant differences were not recorded only in the study groups from northern (Žilina Region) and eastern (Košice Region) Slovakia ($p > .05$) (Table 3).

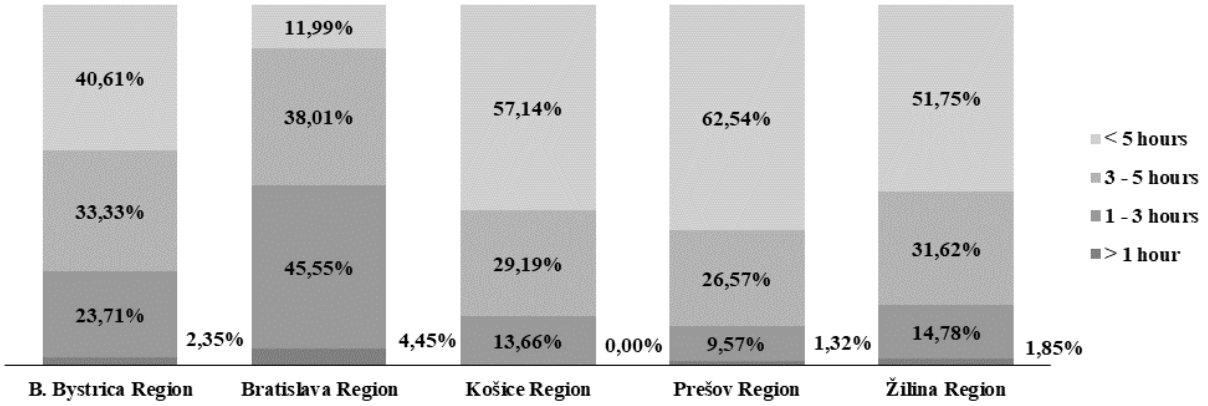

Figure 2. Average leisure time in the study group during the weekend (hours/ day).

Table 3. Statistical interpretation of average leisure time in the study group (hours/ weekend).

	Study group				
Region	B. Bystrica	Bratislava	Košice	Žilina	Prešov
B. Bystrica		8.98E-17**	6.74E-04**	1.09E-03**	4.92E-13**
Bratislava	8.98E-17**		6.20E-25**	2.01E-32**	4.93E-53**
Košice	6.74E-04**	6.20E-25**		2.64E-01	1.65E-01
Žilina	1.09E-03**	2.01E-32**	2.64E-01		2.30E-03**
Prešov	4.92E-13**	4.93E-53**	1.65E-01	2.30E-03**	

*Legend: B. Bystrica - Banská Bystrica; ** - Statistical significance at the level of p < .01; * - Statistical significance at the level of p < .05.*

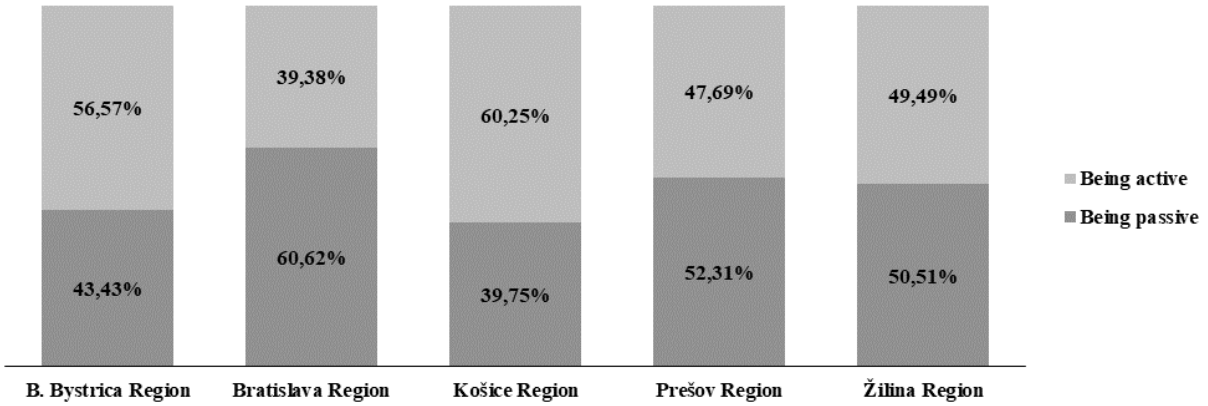

Figure 3. Main way of spending leisure time in the study group.

The Figure 3 shows that the study group' main way of spending the leisure time varies across the regions of Slovakia. Being passive predominated in the region of Bratislava, where 60.62% of the study group stated that they mostly spent their leisure time passively. On the other side, the opposite ratio was recorded in eastern Slovakia (Košice Region), where 60.25% of the study group stated that they mostly spent their leisure time actively. Another positive fact was that more than half of the study group from central Slovakia (Banská Bystrica Region - 56.57%) spent their leisure time actively, performing physical activity. In the other regions, similarly as Bratislava Region, a slight preference for being passive was recorded (Prešov Region, Žilina Region). The study results of the statistical data processing included in Table 4 show that statistically significant differences were not recorded in the study groups from central (Banská Bystrica Region), northern (Žilina Region) and eastern (Košice Region, Prešov Region) Slovakia ($p > .05$) (Table 4).

Table 4. Statistical interpretation of main way of spending leisure time in the study group.

	Study group				
Region	B. Bystrica	Bratislava	Košice	Žilina	Prešov
B. Bystrica		1.24E-28**	4.21E-01	3.24E-02*	2.19E-04**
Bratislava	1.24E-28**		2.05E-05**	6.14E-03**	1.91E-02*
Košice	4.21E-01	2.05E-05**		1.78E-02*	4.61E-03**
Žilina	3.24E-02*	6.14E-03**	1.78E-02*		5.55E-01
Prešov	2.19E-04**	1.91E-02*	4.61E-03**	5.55E-01	

*Legend: B. Bystrica - Banská Bystrica; ** - Statistical significance at the level of p < .01; * - Statistical significance at the level of p < .05.*

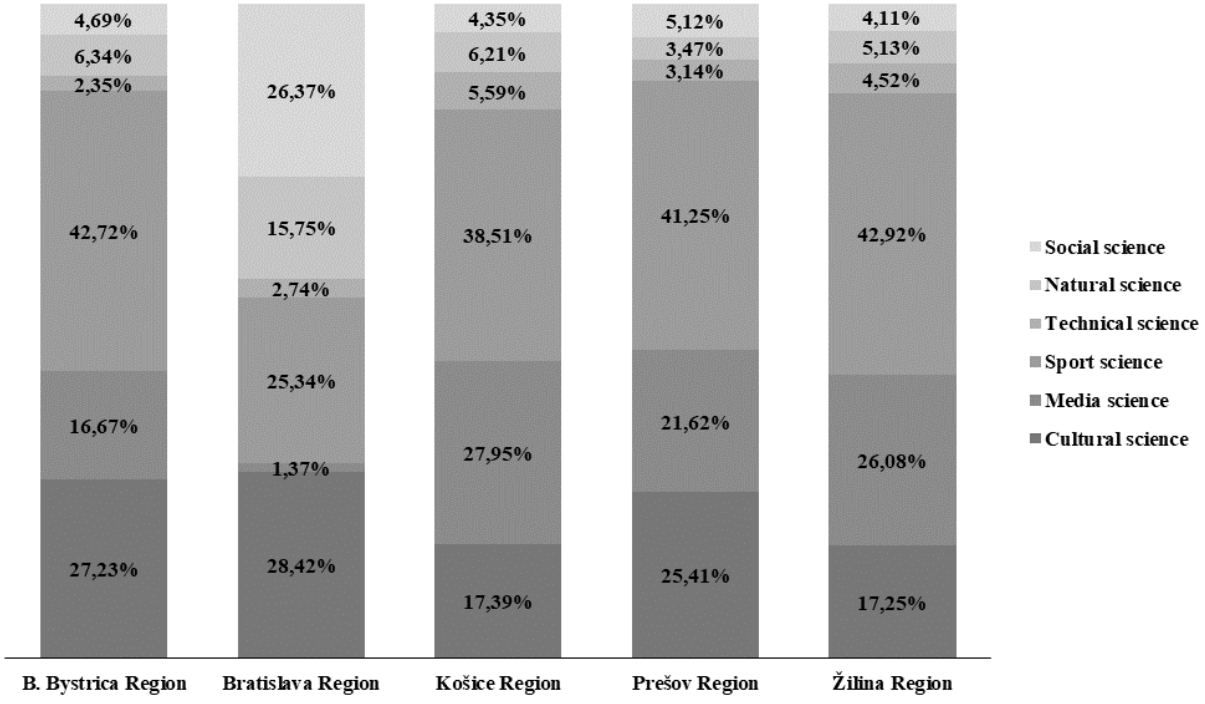

Figure 4. Main leisure time interest area in the study group.

The Figure 4 presents a positive finding was that in terms of main interest area, the sport science predominated among the study group from Banská Bystrica Region, Košice Region, Prešov Region and

Žilina Region. The frequency of response of this survey item across these regions ranged from 38.51% (Košice Region) to 42.92% (Žilina Region). In the study groups from eastern (Košice Region - 27.95%) and northern (Žilina Region - 26.08%) Slovakia, the media science was the second most common interest area. In the study groups from central (Banská Bystrica Region - 27.23%) and eastern (Prešov Region - 25. 41%) Slovakia, the cultural science was the second most common interest area, while in region of Bratislava; the distribution of interest areas was significantly different. The study groups' main area of interest was the cultural science (28.42%), followed by the social science. The sport science was ranked third with only 25.34% of responses. The technical science received the lowest number of responses (overall). The responses for this interest area did not surpass 6% in any of regions. The aforementioned significant differences between the regions of Slovakia manifested in the statistical interpretation (Table 5). Any significant differences were recorded between the regions of Banská Bystrica and Prešov, Košice, Žilina and Prešov ($p > .05$).

Table 5. Statistical interpretation of main leisure-time interest area in the study group.

	Study group				
Region	B. Bystrica	Bratislava	Košice	Žilina	Prešov
B. Bystrica		3.81E-26**	5.63E-03**	2.79E-04**	1.24E-01
Bratislava	3.81E-26**		2.24E-23**	5.86E-39**	1.78E-37**
Košice	5.63E-03**	2.24E-23**		9.36E-01	6.15E-02**
Žilina	2.79E-04**	5.86E-39**	9.36E-01		1.29E-02*
Prešov	1.24E-01	1.78E-37**	6.15E-02	1.29E-02*	

*Legend: B. Bystrica - Banská Bystrica; ** - Statistical significance at the level of p < .01; * - Statistical significance at the level of p < .05.*

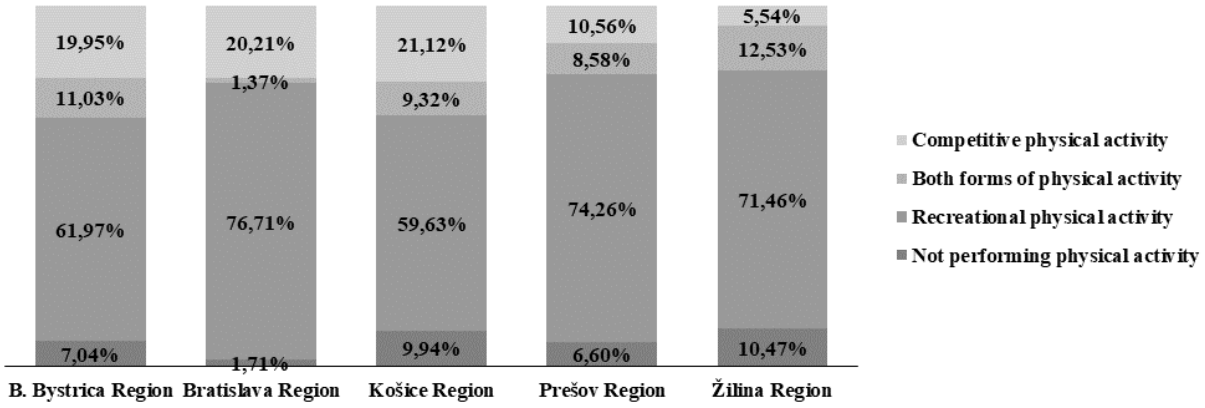

Figure 5. Main nature of leisure-time physical activity in the study group.

The Figure 5 presents the study groups' main form of physical activity and shows that recreational form of physical activity predominated in all study groups from the selected regions of Slovakia. The highest incidence was recorded in the study group from the Bratislava Region with 76.71% of responses. A preference for predominantly competitive physical activity was recorded in the study groups from central (Banská Bystrica Region - 19.95%), western (Bratislava Region - 20.21%) and eastern (Košice Region - 21.12%) Slovakia. A preference for both forms of physical activity was recorded in the study groups from western (Košice Region - 12. 53%) and central (Banská Bystrica Region - 11.03%) Slovakia. The study group from the Bratislava Region was, on the other side, the most stable study group with only 1.31%, preferring

these forms of physical activity. A positive fact was that only 1.71% of study group from western (Bratislava Region) Slovakia stated that they did not perform physical activity, which was much lower result, compared to the other selected regions of Slovakia. In the Žilina Region, for instance, it was 10.47%. In addition, the statistical interpretation revealed significant differences at $p < .01$, in the responses of the study groups from all of the selected regions of Slovakia, with the exception of mutual statistical comparison between the Banská Bystrica Region and Košice Region, where the difference was statistically insignificant ($p > .05$) (Table 6).

Table 6. Statistical interpretation of main nature of leisure-time physical activity in the study group.

	Study group				
Region	B. Bystrica	Bratislava	Košice	Žilina	Prešov
B. Bystrica		2,31E-08**	6.24E-01	9.48E-10**	5.44E-05**
Bratislava	2,31E-08**		1.16E-07**	7.17E-18**	1.45E-08**
Košice	6.24E-01	1.16E-07**		1.38E-07**	7.27E-04**
Žilina	9.48E-10**	7.17E-18**	1.38E-07**		5.91E-04**
Prešov	5.44E-05**	1.45E-08**	7.27E-04**	5.91E-04**	

*Legend: B. Bystrica - Banská Bystrica; ** - Statistical significance at the level of p < .01; * - Statistical significance at the level of p < .05.*

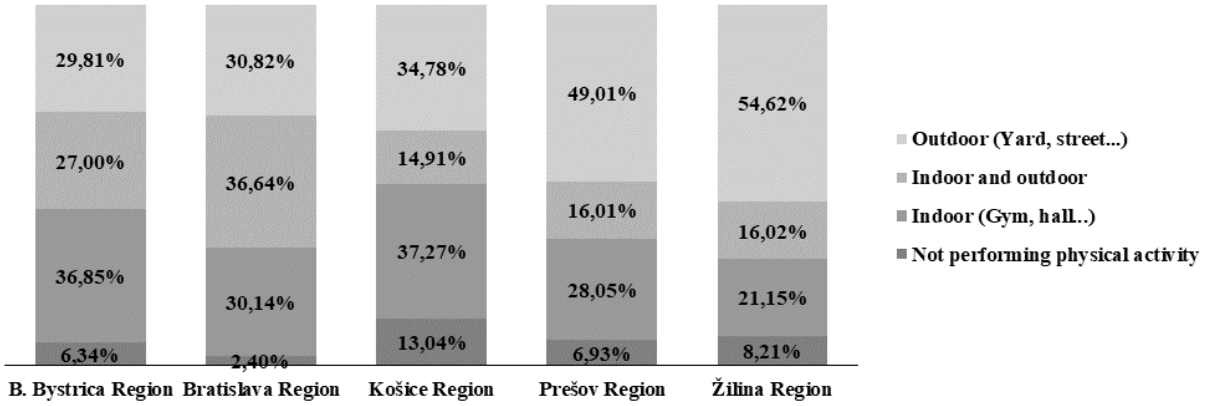

Figure 6. Main place of performing physical activity in the study group.

Table 7. Statistical interpretation of main place of performing physical activity in the study group.

	Study group				
Region	B. Bystrica	Bratislava	Košice	Žilina	Prešov
B. Bystrica		4.13E-03**	2.23E-03	2.76E-14**	2.03E-09**
Bratislava	4.13E-03**		2.68E-08**	1.96E-15**	6.52E-13**
Košice	2.23E-03**	2.68E-08**		1.42E-05**	1.75E-03**
Žilina	2.76E-14**	1.96E-15**	1.42E-05**		6.04E-02
Prešov	2.03E-09**	6.52E-13**	1.75E-03**	6.04E-02	

*Legend: B. Bystrica - Banská Bystrica; ** - Statistical significance at the level of p < .01; * - Statistical significance at the level of p < .05.*

Based on the study results, the study groups from eastern (Prešov Region - 49.01%) and northern (Žilina Region - 54.62%) Slovakia performed physical activity predominantly outdoors, while the study groups from central (Banská Bystrica Region - 36.85%) and eastern (Košice Region - 37.27 %) Slovakia performed

physical activity mostly indoors in sports facilities. Surprisingly, the study group from the Bratislava Region spent the same amount of time performing the physical activity outdoors (30.82%), indoors (30.14%) and in combination of both environments (36.64%). Less than 14% of the study group stated that they did not perform the physical activity. The frequency of each region's response was comparable with the one in previous survey item (Figure 6). The statistical interpretation revealed that there were not significant differences between the regions of Košice and Banská Bystrica and Prešov and Žilina ($p > .05$) (Table 7).

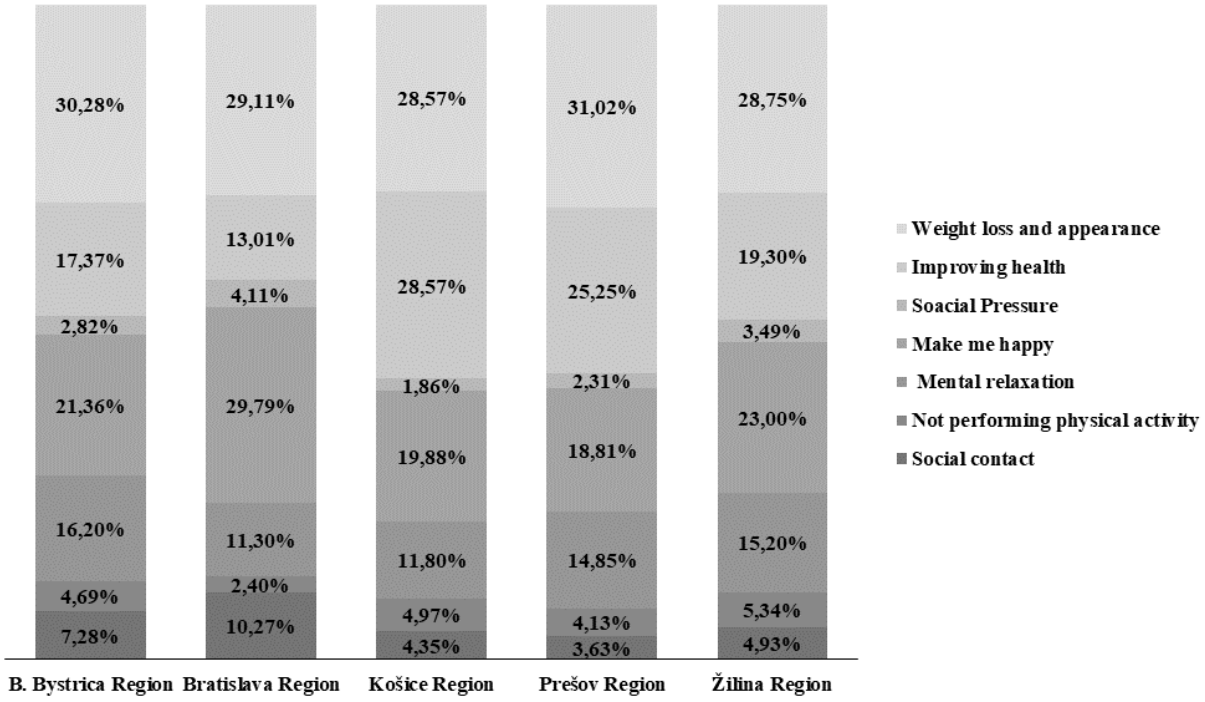

Figure 7. Main motive of performing physical activity in the study group.

Table 8. Statistical interpretation of main motive of performing physical activity in the study group.

	Study group				
Region	B. Bystrica	Bratislava	Košice	Žilina	Prešov
B. Bystrica		8.09E-03**	4.09E-02*	5.13E-01	8.99E-03**
Bratislava	8.09E-03**		9.94E-05**	8.14E-04**	5.00E-09**
Košice	4.09E-02*	9.94E-05**		1.86E-01	6.74E-01
Žilina	5.13E-01	8.14E-04**	1.86E-01		3.58E-02*
Prešov	8.99E-03**	5E-09**	6.74E-01	3.58E-02*	

*Legend: B. Bystrica - Banská Bystrica; ** - Statistical significance at the level of p < .01; * - Statistical significance at the level of p < .05.*

Weight loss and appearance was the main motive for performing physical activity, within the study group, except for those from the western (Bratislava Region) Slovakia (Figure 7), where the most common response was "*make me happy*" (29.27%). It received 0.68% more responses than weight loss and appearance. In addition, the motive of "*make me happy*" was the second highest motive for performing physical activity in the study groups from the Banská Bystrica Region (21.36%) and Žilina Region (23%). Improving health was the second highest motive for the study groups from the eastern (Košice Region - 28.57% and Prešov Region

- 25.25%) Slovakia. Establishing the social contacts was the highest motive for the study group from the Bratislava Region, with 10.27% of the responses, which was significantly more than in the regions of northern (Žilina Region - 3,49%) and eastern (Košice Region - 1.86% and Prešov Region - 2.31%) Slovakia. The survey item *"mental relaxation"* received relatively equal number of responses in all of the study groups. The responses ranged from 11.30% (Bratislava Region) to 16.20% (Banská Bystrica Region). What is more, the statistical interpretation of the responses is included in Table 8.

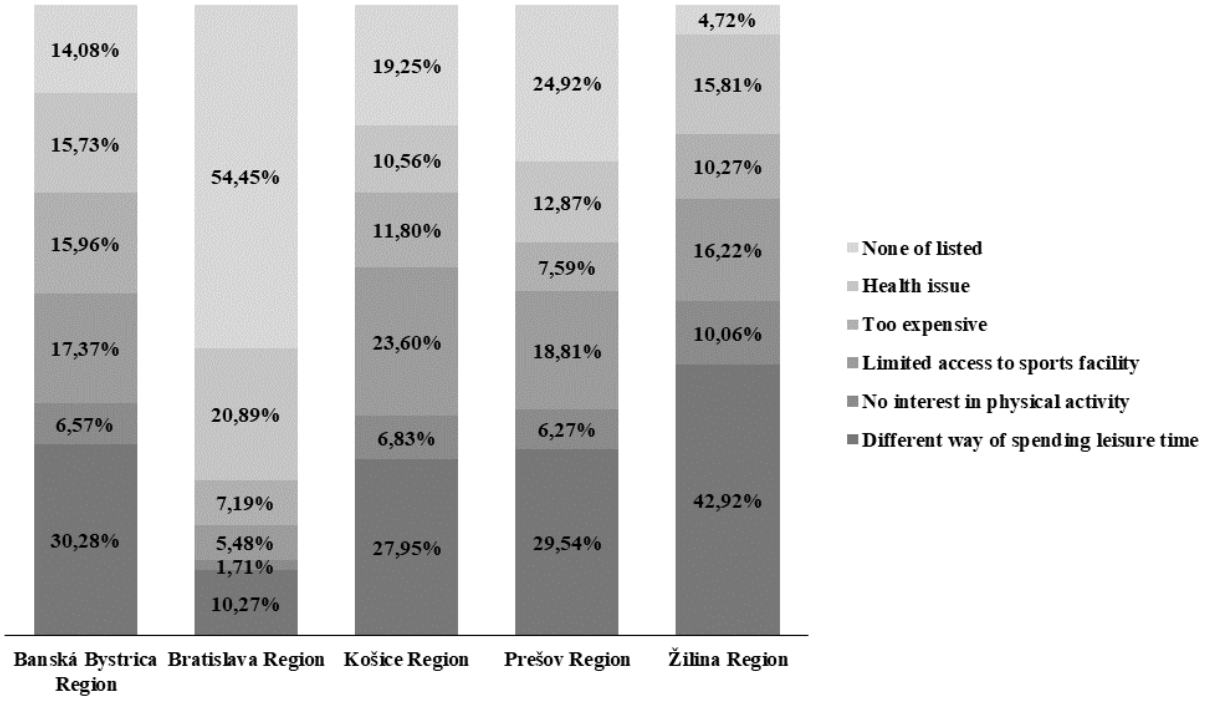

Figure 8. Main obstacle of performing physical activity in the study group-

Table 9. Statistical interpretation of main obstacle of performing physical activity in the study group.

	Study group				
Region	B. Bystrica	Bratislava	Košice	Žilina	Prešov
B. Bystrica		6,13E-34**	1.47E-01**	9.98E-08**	5.81E-06**
Bratislava	6,13E-34**		4.77E-19**	4.87E-62**	1.08E-24**
Košice	1.47E-01	4.77E-19**		1.35E-08**	2.54E-01
Žilina	9.98E-08**	4.87E-62**	1.35E-08**		1.97E-18**
Prešov	5.81E-06**	1.08E-24**	2.54E-01	1.97E-18**	

*Legend: B. Bystrica - Banská Bystrica; ** - Statistical significance at the level of p < .01; * - Statistical significance at the level of p < .05.*

The last survey item focused on the study group's main obstacle of performing physical activity (Figure 8). Different alternatives of spending leisure time was the most common response in all regions (above 27%), except for western (Bratislava Region) Slovakia. The highest percentage of responses (42.92 %) for this survey item was recorded in central (Žilina Region) Slovakia, while the most common response in the study group from the Bratislava region was *"none of listed"* (54.45%). The second most common response in all regions, except for western (Bratislava Region - 5.48%) Slovakia was *"limited access to sports facility",* with

the responses ranging from 16.22% (Žilina Region) to 23. 60% (Košice Region). Alarmingly, on average, 15.18% of the study group stated that they did not perform physical activity due to their health issues, with the highest percentage of responses coming from the study group of Bratislava Region (20.89%) Slovakia. The statistical interpretation revealed that there were not significant differences between the regions of Banská Bystrica and Košice and Košice and Prešov ($p > .05$) (Table 9).

DISCUSSION

The most frequent survey response in the research sample was 1 to 3 hours of leisure time during the work week (48.02% - 57.88%). Babiaková (2007) defined the leisure time as the period of time, which remains left after subtracting work time or time dedicated to study, school attendance, etc. The way in which leisure time is spent has changed significantly throughout the years. While in the past, more time was spent working to make a living, today, people's leisure time is constantly increasing (Gambovičová, Neslušanová, 2012). The Czech youth, for instance, has had on average 3 hours and 46 minutes of leisure time in the work week (Hofbauer, 2004). Krystoň (2003) researched the amount of leisure time of general student population and discovered that 66% of the respondents had from 2 to 4 hours/ day of leisure time. Gallo, Lenčo (2007) stated that 54.4% of their research sample, which consisted of participants aged 13 - 27, had 4 hours/ day of leisure time.

The amount of leisure time is increasing because of modern technologies. This fact also contributes to a passive way of spending leisure time, which predominated (60.62%) among the study group from western (Bratislava Region) Slovakia. The Youth Council of Slovakia's (2018) study revealed that 70% of the respondents spent their leisure time passively, playing video games, listening to music and watching television. The leisure time of the current generation is closely associated with watching television, while this passive way of spending leisure time is more prevalent among the primary school pupils (55.2%) compared to secondary school students (44.8%) (Slovíková, 2010). A similar tendency (73.85%) was recorded by Shin, You (2013) who pointed to excessive passive leisure time. An appropriate way of spending leisure time should be a part of everybody's life - especially children and young adults. Leisure time is associated with the creation of a value system; it contributes to personality development, social relationships, interactions (Čech, 2002). Passive leisure time does not provide the efficient impetus for the development of children and youth (Slepičková, 2005; Krška, 2008).

A positive fact was that the area of physical activity (38.51% - 42.92%) was found to be the main interest area. Primary schools, where the pupil population spends a significant amount of time, have a crucial role in building the relationship towards regular physical activity (Hanke, 1997). Together with compulsory sports and physical education, primary schools are a key place in which pupils develop their relationship towards physical activity. Sports and physical education needs to consider the interests of the student population, however, the number of children for whom compulsory sports and physical education represents only form of physical activity is increasing considerably. Nonetheless, the student population's passive (non)attendance at these classes, due to various but mostly subjective reasons, means that they are deliberately passing up this opportunity (Boreham, Riddoch, 2001; Zrnzević, Arsić, 2013).

The study group covered leisure-time physical activity of predominantly the recreational nature (59. 64% - 71.71%). Regular physical activity of recreational nature is very important for health, quality of life, lifestyle, etc. It is also an indispensable part of leisure-time activities, which are directly conditioned by socioeconomic status (Jedlička, 2009). Recreational physical activities support the personal development, self-improvement and create space for self-activation (Bartík, 2009, Michal, 2010).

The place, where the study group performed the physical activity varies significantly. The study group from the Prešov Region (49.01%) and Žilina Region (54.62%) predominantly performed the physical activity outdoors, while 36.85% of the study groups from the Banská Bystrica Region and 37.27% from the Košice Region performed the physical activity indoors. The above findings are supported by Gülçin, Mefule (2018) who added that physical activities can be performed at various places depending on the range of physical activity.

All individuals are innately motivated to move and motivation should be strengthened throughout the life by intentional movement stimuli. Regular physical activity should be performed based on intrinsic motivation. The current environment, however, often leads to the loss of this motivation throughout life (Vašíčková 2016). In recent years, more attention has been paid to the issue of regular physical activity, because of constantly decreasing number of people performing physical activity not only spontaneously, but especially in an organized manner. Adolescence is considered to be a period of very significant changes in physical habits. Physical activity is influenced by large number of exogenous factors (demographic and socioeconomic). The main motive for performing the physical activity in the study group (except for the Bratislava Region) was the weight loss and appearance. Michal (2010) agreed with similar conclusion when he discovered that physical health (63.8%) was the most common motive for performing the regular physical activity. Buková, Uher (2010) obtained similar results and confirmed that health (40%) was the most common motivator for performing physical activity in both the male and the female populations. However, the other motives varied across the populations. While the motive of having a nice figure ranked fifth in the male population, the female population with its stronger aesthetic appreciation placed it right after health (20.7%).

Alternative ways of spending leisure time (32.68%) were the main obstacle to performing physical activity in the entire study group with the exception of the Bratislava Region. The most common response was *"none of listed"* (54.45%). According to Alsubaie, Omer (2015) the main obstacles to performing physical activity in the period of adolescence were the following: a) a lack of sports facilities in the community (74%), b) a lack of friends and peer support (59%), c) a lack of suitable public sport clubs in the community (54%). Kratochvílová (2010) addressed several issues related to leisure time activities and believes that they stem from a lack of options and opportunities. These are related to other factors such as parents' financial possibilities, distance from sports facilities, etc.

CONCLUSION

The aim of study was to analyse and compare physical activity of female secondary school students from selected regions of Slovakia. The study's results show that the study group' leisure time - in terms of hours (during the work week and weekend) and nature (passive and active) - varies significantly across the selected regions of Slovakia. These differences can be also perceived in the area of physical activity - their nature, main motives for and main obstacles to performing these activities. The most considerable differences were observed in the study group from the Bratislava Region, which is the most economically developed region in Slovakia and has the lowest rate of unemployment.

The results confirm that the volume of physical activity in the current generation of children and young adults, including adolescents, is below the threshold level considered as a biological need. These findings call for further investigation of causes responsible for this situation. Researching the socioeconomic requirements necessary for regular physical activity should help identify the causes of negative tendencies which affect the interest in regular physical activity.

Regular physical activity positively affects the health, quality of life, and lifestyle. The student population is in the optimal stage for building the strong relationship towards physical activity, in which a family plays an important role. A family life based on common physical activity supports the proper development and healthy lifestyle.

AUTHOR CONTRIBUTIONS

Stefan Adamcak (study design, data collection, statistical analysis, data interpretation, manuscript preparation, literature search). Pavol Bartik (data collection, statistical analysis, data interpretation, manuscript preparation, literature search). Michal Marko (data collection, statistical analysis, data interpretation, manuscript preparation, literature search).

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No potential conflict of interest was reported by the authors.

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