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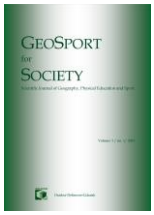

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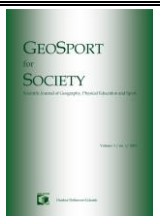

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Proposal centre of sustainable tourism from unused buildings in Zádiel

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Abstract: Not only around the world are many nice places which fascinate visitors, but also in our small country, in Slovakia. We have many rare human works, historical monuments, animals, plants, or minerals, which help us to make sense about nature, which is around us. It is very sad, that sometimes people know world better than their own country. In this context, it is necessary to know that all of places, not only around the world, but also at home have only limited traffic rate, which should be the base stone of sustainable development of tourism. To these areas belongs also National Park Slovak Karst, with one of the most visited part Zádiel gorge. It is famous region with many caves, ravines and limestones formations. All of mentioned should help to region be world known, what suppose many tourists here, who used to burden environment. Currently analyze does not show abnormal burden nature through tourism, but now is time thinking about protection this area and ways how to use existing options. This is the main reason why article describe analysis of burden of tourism in Zádiel area and using of existing objects to sustainable tourism.

Keywords: sustainable development of tourism, Zádiel area, tourism burden

Introduction

Burden of tourism is currently very hot topic. On the one side we have to think about ongoing tourism promotion, on the other side we have rational considerations, because of environmental burden. This is caused by huge invitation of tourists, mainly in nature protected areas (Herman et al., 2016; Ilieş et al., 2018). Data from analysis describe Zádiel village where is impact of tourism constantly increasing. Therefore, there was utilized analysis of impact of tourism in terms of transport,

accommodation, also noise. During this evaluation it is possible to take further measures and actions that lead to reducing the burden on the environment. The various calculations and evaluations were made based on the number of tourists in the area (calculated through one day during holiday season) and based on the limits of the EU. Based on analysis of tourism impact and number of tourists who come here, we can reduce and control the environmental burdens to not reach even higher values in future. Just these facts are also expected to draft a timeless center of sustainable tourism in the area.

Location of described area

Described Zádiel village is located in the southeastern part of Slovakia, near the Slovak-Hungarian border. The area is built upon the geological site by generical, which is built by limestone, National Park Slovak Karst. This is the main reason why this area is very famous for tourists, because of many opportunities for excursions, hiking or exploring the interesting flora and fauna, also a number of precious cultural monuments. National Park Slovak Karst with Aggtelek National Park creates a single territory that is one of the largest karst areas in Central Europe. It is also one of the most beautiful and interesting areas in Slovakia. The area was in 2002 declared as a national park, but it is interesting that already in 1977 it was the first area included in the international network of biosphere reserves under the UNESCO Man and Biosphere (National Park Slovenský kras, 2015).

Evaluation of burden of tourism

In terms of tourism and its burden, we can talk about influence of local transports, accommodation facilities, which are the second home for tourists during their stay out of their residences, but also noise that often visitors can produce. When we think about increasing development and impact of tourism, it is very important to evaluate just these basic factors, which are often a basis of secondary tourism supply.

Evaluating these factors is not simple, mainly because we have not enough needed information about these areas. In the National Park Slovak Karst were counted tourists first time in May 1 in 2007 in the most visited area Zádiel gorge. There were 792 tourists. During our analysis in Zádiel area, which was made last year, September 1 (public holiday) there were counted 264 tourists during two hours. Mainly during public holiday there are the largest numbers of tourists, so there used to park about 100 – 105 vehicles. Basic values for the bearing capacity of the burden are defined from limits and we can evaluate them from known amounts of consumed energy. Water and waste produced are not known, but we can estimate them. These facts are included in analytical section, which takes into account the main underlying variables of existing capacity of accommodation facilities, their 50% visit rate and the main tourist season, which lasts six months (April - September), also that the basic market segment is family with one child.

Transport and European emission limits EURO

Emissions caused by transport, must be considered that there are different thresholds for different types of engines and also may be a difference even for exactly

the same vehicles. The impact of transport is well known, so many states began to assert control emissions which are produced by vehicles. This way began the emission limits known by the acronym Euro X.

Diesel and petrol engines produce a large variety of gases, compounds and elements. Standards define the maximum permitted levels only in the most serious situations: carbon monoxide (CO), nitrogen oxides (NO_x), unburned hydrocarbons (HC), particulate matter (PM), carbon dioxide (CO_2) (Prísňovanie emisných limitov cestných motorových vozidiel, 2015).

When evaluating emissions from transport it is necessary to consider CO2 emissions that cause global warming and the greenhouse effect, which are currently the most discussed issues of the environment. The various means of transport occur following CO_2 production: vehicle 160 g/km, bus 40 - 80 g/km, the train 40 - 160 g/km (Veverka and Lešisnký, 2015). Average vehicle that consumes seven liters of petrol/diesel per 100 km per year can produce about 750 kilograms of carbon dioxide per year, which depends on the number of kilometers.

Table 1. Emission limits for vehicles [g/l]
(Data source: Prísňovanie emisných limitov cestných motorových vozidiel, 2015)

Standard	Date of introduce	CO	HC	HC+ NO_x	NO_x	PM
Deisel						
Euro 1	07/1992	2,72	-	0,97	-	0,14
Euro 2	01/1996	1,00	-	0,70	-	0,08
Euro 3	01/2000	0,64	-	-	-	-
Euro 4	01/2005	0,50	-	0,30	0,25	0,025
Euro 5	01/2011	0,50	-	0,25	0,20	0,005
Euro 6	09/2014	0,50	-	0,17	0,08	0,005
Petrol						
Euro 1	07/1992	2,72	-	0,97	-	-
Euro 2	01/1996	2,20	-	0,50	-	-
Euro 3	01/2000	2,30	0,20	-	0,15	-
Euro 4	01/2005	1,00	0,10	-	0,08	-
Euro5	01/2011	1,00	0,10	-	0,06	0,005
Euro 6	09/2014	1,00	0,10	-	0,06	0,005

Table 2. Emission limits for trucks and bus [g/kWh]
(Data source: Prísňovanie emisných limitov cestných motorových vozidiel, 2015)

Standard	CO	HC	NOx	PM
Euro 1	4,5	1,10	8,0	0,36- 0,612
Euro 2	4,0	1,10	7,0	0,15
Euro 3	2,1	0,66	5,0	0,1
Euro 4	1,5	0,46	3,5	0,02
Euro 5	1,5	0,46	2,0	0,02
EEV	1,5	0,25	2,0	0,02
Euro 6	1,5	0,13	0,4	0,01

Burden made by accommodation facilities

In this part of the analysis was evaluated by consumption of media such as electricity, gas and water. In accommodation facilities water is used mainly for (consumption of water per person per day): showering and bathing 40 l, laundry 40 l, WC 40 l, personal hygiene (no swimming) 15 l, cleaning 10 l, dishwashing 7 l,

drinking and cooking 6 l, the share of government consumption, for example swimming 150 l. We can say that consumption of this facility is about 308 l water for 1 person per day (Pavolová et al., 2012).

Electricity consumption in accommodation depends of various electrical appliances. Each property has other appliances, but almost each has a washing machine, refrigerator, vacuum cleaner, TV or radio. Weekly theoretical household consumption of electricity is 133,625 kWh. Monthly theoretical consumption is 534,5 kWh. Therefore, we can say that electricity consumption in main season, from April to September (than main tourist season) is about 3 207 kWh.

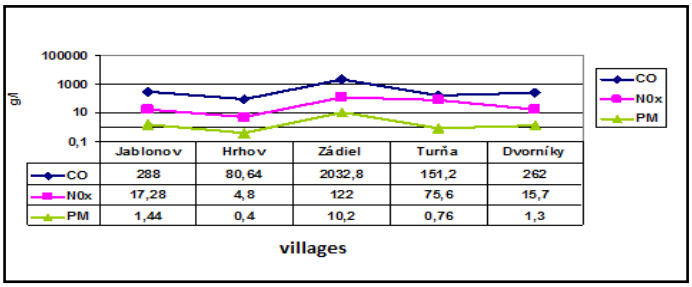
Accommodation facilities also produce waste generated from the operation of both operators themselves or by persons using the service equipment. Unfortunately, tourism is the largest producer of waste of products of daily consumption in the form of various types of packing. They are thrown into the bins and continue to landfills, but often accumulate in landfills and unsuitable environments that producers are often themselves residents of communities or tourists. Production packaging, however, has a positive downward trend. Most packaging is produced in the form of paper and glass, that of the substances which are currently recycled, as from January 1, 2010 is the responsibility of each municipality to introduce waste recycling.

Burden of tourism in Zádiel village

The impact of transport in the village Zádiel is most felt by tourists who come here to see Zádiel gorge. After analysis it was found that in Zádiel area used to change about 45 vehicles daily, 72 vehicles over the weekend and about 100 - 105 vehicles during the public holiday. As it was mentioned, in the analysis of traffic on Zádiel, there were counted 264 visitors in two hours (in this way were analyses also villages around, mentioned in table 1 and 2).

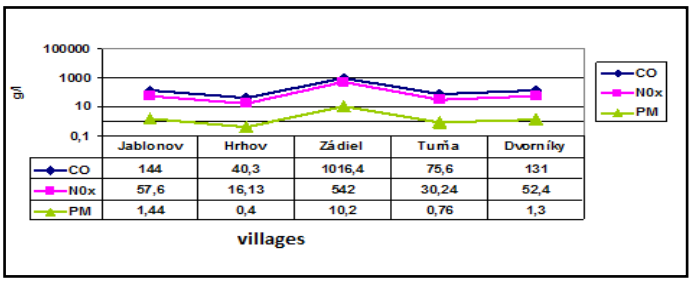
When we suppose that the most visited time in Zádiel is from 9.00 - 15.00 hours, at this time about 1 056 visitors could be located there. If we suppose that key market segment which travels there is a family with one child on the one vehicle, we can suppose that in Zádiel area is during 422 vehicles per one day. If we consider the six-month season (suitable for hiking), when we know during these months, 47 times reported rainfall, showers or thunderstorms, so the weather was not suitable for hiking (including 16 times on the weekend). This way we can consider 136 days suitable for hiking (including 10 times on weekends and 7 times public holiday). So, if we assume the approximate number of vehicles that were here during the week and over the weekend, we assume that during the last year there were about 16 940 tourists for the entire season, which is about 6 776 vehicles. If we know that the path from the main road (from Košice to Rožňava) to the parking before the Zádiel gorge is 2,13 kilometers long (4,26 kilometers in total), so by given number of vehicles with an average consumption of seven liters of gasoline a conventional vehicle/diesel per 100 kilometers, load assumptions (Z) caused by transport as follows: Z= (4,26*7/100* emission limits (CO, NOx, PM) * number of vehicles.

CO_2 values in this area are also higher overall, it's about 4 618 kilograms during the mentioned number of vehicles, at the route to the village from the main road (4,26 km). Transport by bus and train is not take into account. In general, we can say that the largest environmental burden brings by vehicular traffic.



	Jablonov	Hrhov	Zádiel	Turňa	Dvorníky
CO	288	80,64	2032,8	151,2	262
NOx	17,28	4,8	122	75,6	15,7
PM	1,44	0,4	10,2	0,76	1,3

Figure 1. Evaluation of the burden in the villages of road transport by vehicles using diesel (Source: own processing, 2015)



	Jablonov	Hrhov	Zádiel	Turňa	Dvorníky
CO	144	40,3	1016,4	75,6	131
NOx	57,6	16,13	542	30,24	52,4
PM	1,44	0,4	10,2	0,76	1,3

Figure 2. Evaluation of the burden in the villages of road transport by vehicles using gas (Source: own processing, 2015)

Since there is no model of tourists and its impact on the environment, our measurements were evaluated by the Directive of European Parliament 2001/81/EC and 2006/944/EC, which defines the upper limit of emissions for each year for the whole territory of Slovakia (Council directive 2006/105/EC).

Based on mentioned Directive we can interpreted impact to environment by vehicles. It was calculated based on proportional to the size of the Slovakia territory (49 036 km^2), the size of individual land registers nearby villages (10 089 ha) and the emissions threshold in areas with fixed dimensions (Fig. 3).

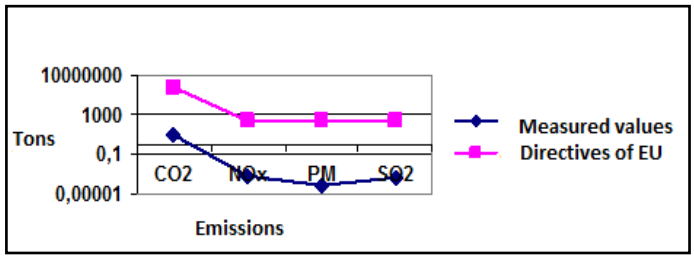


Figure 3. Comparison of the calculated values of emissions from the transport burden for Zádiel area and surrounding communities with an aliquot of emissions defined by the EU Directives (Source: own processing, 2015)

Based on analysis we can say that in this area there is not above-average load transport emissions. Thus, produced emissions are currently in compliance with Directive 2001/81/EC. However, although the emissions were evaluated under the

critical level, it is appropriate to continue to look at the application of the newest technologies, processes, materials, information and trends in the possibility of environmental protection. In this way, it is still possible to reduce individual limits or amount of energy, what assume also reduce burden to nature. Only this way we can also protect nature not only for us but also for future generations.

Evaluation of burden of tourism in Zádiel village by accommodation facilities In Zádiel village there are two bigger accommodation facilities with a total capacity 32 bed. At about 50% of occupancy, we can think about 16 beds per day which is around 2 800 tourists in the main season. We can say based on underlying parameters for consumption of water and electricity, these parameters represent approximately 3 207kWh of electricity during the main season and 862 400 liters of water.

There is also waste produced by accommodation facilities in the village, weighing 10 800kg during the season (when we suppose 30 lie bags of waste per day).

Since we know that most waste in tourism arises from the packaging, where in 2006 about 300 000 tons of packaging waste, if we divide this number by the number of municipalities in the Slovak Republic, 2928, so it's for one community of about 102,5 tons of waste/year. Although this figure is very approximate, due to different sizes of municipalities and hence the different quantities of waste produced in this way there is at least an approximate view of these amounts. Bigger cities of Western Europe, used to produce average 415 kg of municipal waste per inhabitant/year. Based on this, waste production in Zádiel area is higher than the EU average, 569 kg/inhabitant. The waste is also dealt with EU directive No. 2150/2002 but it defines only the various types of waste (Rozhodnutie komisie, 2006).

Proposal centre of sustainable tourism in Zádiel

Based on analysis and measured values in Zádiel area, we can still improve the current situation and use many existing opportunities to make tourism sustainable.

Within the possibilities offered by the surroundings of the Zádiel village and its use was designed timeless space of active use and protection of this area, which implies minimizing the impact of tourism directly at the protected area Zádielska gorge. Proposal will underpin wider surroundings, and thereby concentration of tourism in one place.

While the current trend is the increasing volume of traffic, the main objective of proposal is gradual reduction of emission and smaller environmental burden. The proposed device can reduce the level of emissions in protected areas by regulating the number of tourists, by limiting the availability of means of transport, and increasing environmental awareness not only among tourists but also among domestic population. That is the objective of the proposed tourism center.

In this way, the proposed Sustainable Development Programme of tourism can reduce the impact to the environment, by current or higher number of tourists. Therefore, we proposed creation of so-called teaching - entertainment center in the village Dvorníky in areas currently unused by agricultural cooperative.

The main principle of the proposal is selection of tourists to specific groups according to their actual needs in this precious area:

- tourists who come to Zádiel to explore the area as a national natural monument;

- tourists who come for purposes of entertainment, rest, relax;
- tourists, for whom nature and landscape are not the primary reasons for visiting the area;
- tourists who do not know the area (they have opportunity to know the area or decide to spend their time other way).

The main objective of this section is not decrease numbers of tourist. The main precondition for the operation of the proposed project is the cooperation of surrounding communities, as well as organizations dealing with the promotion of tourism in the region.

To create the center, we propose to use the existing building cooperatives, which are currently unused. Besides this it is necessary to use a number of technologies and materials that save the environment and ultimately bring energy savings. In particular, I propose to reconstruct the building and use it as it follows (Fig. 4).

Buildings No. 1, 2, 3: Since in one of these buildings are still cows, so it can be used for agricultural tourism, which raises environmental awareness.

Buildings No. 4, 5: These two buildings we suppose to use mostly for fun, especially for tourists, whose primary goal is not to discover the nature, but spend time in a pleasant atmosphere and take full advantage of their free time. I therefore propose to redevelop the building for sports - entertainment purposes, which will be useful throughout the year. In particular, there could be built multifunctional playground for several sports.

Buildings No. 6, 7: Will be used for permanent presentation of a given area by big screen. I propose to process the whole nature trail that leads through Zádiel gorge in 3D, but also rare and interesting area of Slovak Karst National Park, which will be presented here. This area should be the most important for environmental burden. Here should tourists make decision if visit the area or stay at proposed center. These buildings can also be used for various seminars, trainings, meeting entities operating in tourism as a center of rural and ecotourism.

Building No. 8: We suppose to use this building as a centre of proposal. At the same time there will be presented the whole proposed center, there will be focused stalls and small shops for snacks, tasting of local specialties and products that will be produced not only on site but also products that are also currently produced in the surrounding villages.

Outdoor area: Outdoor area includes toilets, also space for children, small greenhouses with flora typical for karst area.

Outdoors we also suppose parking spaces. These places will be created underground, with subsequently filtered air. This reduces the burden on transport emissions directly at the Gorge. In the above-ground parts were supposed to create space for parked electric minibuses that will be used to transport tourists from the center to Zádiel gorge. These vehicles used electricity for their power, which are the most environmentally friendly mode of passenger transport. This will again eliminate the emissions in the field. For further operations and efficient using of proposal space it is necessary to draw up a calendar of events and actions that will take place during the year here. Each month will be known in advance and thus easily publicized program within the center.

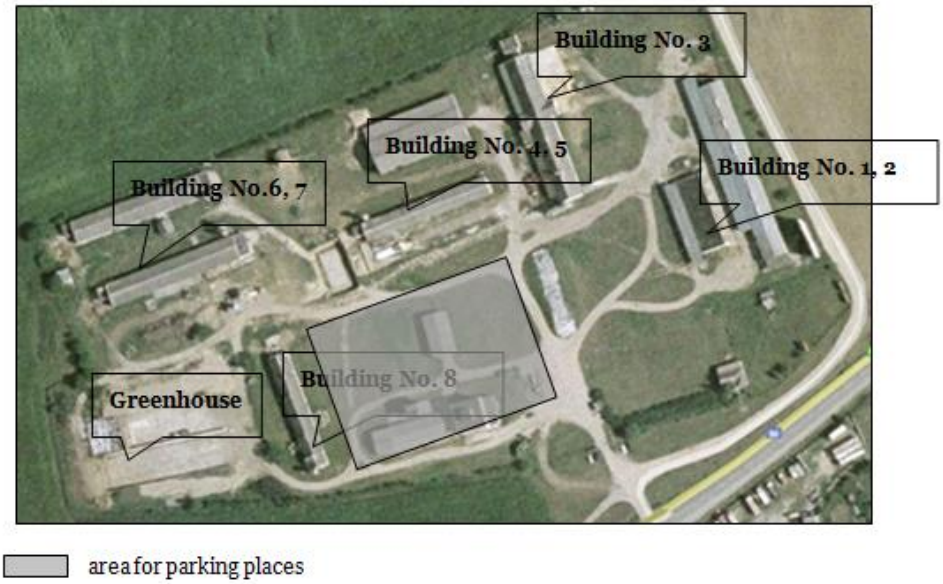


Figure 4. Agricultural cooperative in the village Dvorníky, place for proposal of centre of sustainable tourism (Source: own processing, 2015)

Conclusion

When we assume that proposal centre will be visited by tourist form around villages and their accommodation facilities up to 50% occupancy (11 facilities with capacity 123 beds), so overall this center during the high season, will use about 25 000 tourists. Maybe 30 000 tourists, if we are counting also other visitors. The basic composition of the market segment is family with at least one child, we can count with about 12 000 vehicles in the Zádiel area. We suppose absolute reduction of vehicles in the immediate vicinity of the Zádiel gorge, through the noise and traffic reducing of their burden of 100%. In addition to the above-mentioned environmental benefits of the proposed center, one of the other advantage is also extension of the active tourist season to more than though six months. Proposal envisages as the main sources of financing using EU funds for the promotion and development of tourism, but also self-financing from different activities. Perhaps proposal currently looks more like science fiction than reality, but it is only a matter of time when we will have to do maximum of possible for as important places within our protected natural heritage, as Zádiel gorge is. As it used to be obviosity abroad, here in Slovakia it is some news, which, however, brings many new innovations and positive thinking in the spirit of sustainable development of tourism.

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The effect of packages on wellness tourism in Eastern Hungary, North Great Plain Region and Romania's Bihor Region

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Abstract: Hungary and Romania have both abundant sources of mineral and medicinal water. Primary wellness tourism is traditionally based on thermal spas, but other recreational and gastrocultural opportunities are necessary to attract further visitors. The primary purpose of this study was to investigate the availability of complex (fitness-wellness) packages in wellness hotels at Hajdú-Bihar county, North Great Plain Region, Hungary and in some extent Bihor county, Romania. The secondary aim was to examine the possible effect of these packages on local tourism. Twenty-two hotels responded positively to our survey, which represents a reasonably good, over 50 % return rate majority of them above 90 % offer some kind of wellness options (spa, cosmetical, medical or alternative therapies). Very few hotels had some kind of fitness facility. Among medical or other alternative therapies acupuncture, Bach therapy, Kneipp therapy, chiropractic options are the most popular. Recreational or outdoor activities are very few among the hotels participating in our survey. We may conclude that one prospective way to boost touristic revenues related to health and wellness is to introduce or further develop packages. Combining fitness-wellness, recreational, therapeutic, cultural and gastronomic options or services may be the key to attract further visitors to our region.

Keywords: Wellness tourism, Bihor-Hajdú-Bihar Euroregion, packages

Introduction

The health and wellness tourism area are an ever-growing industry in Hungary, in Romania and across the world. Today people are actively travelling to destinations where thermal bath, fitness and other therapeutically facilities are abundant. There is a huge competition among destinations in our region and in all over Europe too (Árpási, 2014). Hungary and Romania both respected for its rich mineral and medicinal water sources. In Hungary alone, 1372 thermal water source, 51 certified medical spas may be found Rátz & Michalkó (2010), Romania posseses 30 percent of all thermal waters found in Europe. Hajdú-Bihar and neighboring Bihor county (Romania) share a lot in common, as in 2002 the Bihor-Hajdú-Bihar Euroregion was settled (Badulescu et al., 2014). Famous thermal bath facilities, and destinations Hajdúszoboszló, Debrecen, Oradea (Nagyvárad), Baile Felix (Félixfürdő) available in this historically joint area [1, 2, 3]. According to available recent statistical data on regional allocation and share of different kinds of spas in Hungary, the North Great Plain Region have one of the highest number of facilities (Fig. 1) of its kind (Csapó & Marton, 2017).

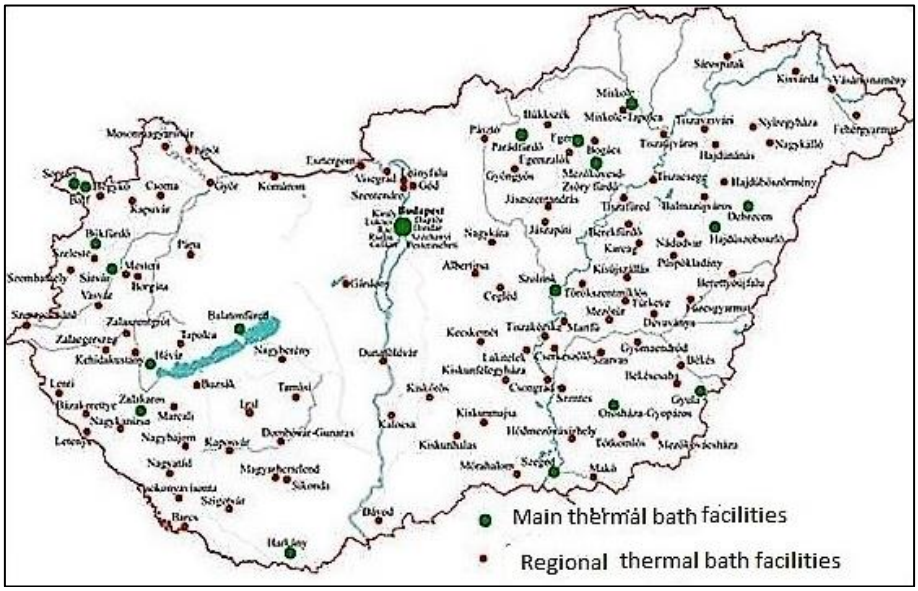

Figure 1. The distribution thermal bath facilities in Hungary (VITUKI)

Most of the people visiting this place are seeking remedies, or medical treatment, younger generations are interested in recreational-fitness programs to. According to Ruszinkó (2006) wellness tourism has great potential for growth. People participating in health and wellness tourism are tend to spend an average 30-35 % more on their trip compared to „ordinary" travelers. According to Global Wellness Institute wellness traveler's spending are even 61% more than the average

[1] *http://romaniatourism.com/spa-romania-baile-felix.html*
[2] *http://romaniatourism.com/oradea*
[3] *http://tourofbihor.ro/wp-content/uploads/2017/05/Discover-Bihor-County.pdf*

holiday-seekers [4]. This spending's may be as high as 1300-1600 Euro per trip [5] European travelers are actively integrating health and wellness elements into their trips. They tend to choose hotels that offer wide range of health-oriented, recreational, gastronomic activities. This is called „secondary wellness tourism", this sector between 2013 and 2015, demonstrated a sharp increase (20%) in the number of trips and further (16%) growth in the amount of expenditures. Although traditional, primary wellness tourism, also increased but in a much slower rate, by 2% and 5% respectively.

The advantages of wellness tourism

One of the biggest advantage of wellness tourism that it is not seasonal. These tourists may visit destinations any time of the year, regardless of the season. Not only summer but autumn, and winter may also be popular time of a trip. Travelers usually take a week off for sightseeing or having fun in the beachside. A complete health-wellness therapy may take weeks, this is why the spending of these visitors may be significantly higher compared with other tourists. Beside using therapeutic facilities, these types of visitors will likely to use beauty services (cosmetics, facial therapy etc.) and fitness facilities too. They will also generate income for local restaurants, and shops. This way, shop and restaurant-owners will benefit from health tourism. The motivation for travel may be for therapeutic, medical wellness purposes for wellness in general or using a spa facility. Majority of tourists primarily visiting our region are coming from Western European countries such as Germany and Austria, former Eastern Bloc (Ukraine and Russia, Slovakia, Romania) residents are also traditionally attracted to our region. Although domestic tourism has grown significantly in recent years (Central Institute of Statistics, 2013-2017).

The purpose of this study

The primary purpose of this study was to investigate the availability of complex (fitness-wellness) packages in wellness hotels at Hajdú-Bihar county, North Great Plain Region, Hungary and in some extent Bihor county, Romania. The secondary aim was to examine the possible effect of these packages on local tourism.

Material and methods

We thoroughly examined available statistical data (from year 2013 to 2017) on the number of nights spend in a hotel by either domestic or foreign travelers. derived from KSH years (Central Institute of Statistics, 2013-2017) databases. We were specifically focusing on Hajdú-Bihar county, for this reason we created our own questionnaire, we send the survey electronically to a defined list of hotels offering therapeutically and/or wellness services. After several additional notices an phone calls twenty-two of the hotels responded to our survey.

Three to five stars „wellness hotels" with wellness and wider range of wellness offers and other small-scale hotels with only a few options were included.

[4] *https://www.globalwellnessinstitute.org*
[5] *https://www.cbi.eu/market-information/tourism/physical-wellness-tourism/europe/)*

These hotels are precisely defined by the Hungarian law. According to statue 54/2003. (VIII.29.) these hotels must have qualified personnel responsible for managing and running wellness and recreational services. Must offer services related to the area of health promotion including gastronomy, recreation, and wellness, and further provide some kind of social programme for visitors (Csizmadia, 1996; Győrffy, 2004). These facilities often feature so-called package services comprising sporting, beauty/medical, nutrition/diet, relaxation/meditation and mental activity/education offers ansd activities (Mueller & Kaufmann, 2001). We found it difficult to draw any conclusions about Bihor County's degree of wellness tourism, because the number of English language resources are quite scarse Researchers such as Borma (2015), Badulescu et al., (2014) and in some extent Soare & Zugravu (2013) investigated this topic.

Results

Twenty-two hotels responded positively to our survey, which represents a reasonably good, over 50 % return rate majority of them above 90 % offer some kind of wellness options (spa, cosmetically, medical or alternative therapies). However, the available options reflected only a limited number of offers like spa (bathing, sauna) facilities, beauty (cosmetics, facial and body massage, hair-dresser, manicure etc.) services. Very few hotels had some kind of fitness facility (a room or a smaller scale fitness center). Among medical or other alternative therapies acupuncture, Bach therapy, Knapp therapy, chiropractic options are the most popular. Recreational or outdoor activities are very few among the hotels participating in our survey.

Conclusions

One prospective way to boost touristic revenues related to health and wellness is to introduce or further develop packages. Combining fitness-wellness, recreational, therapeutic, cultural and gastronomic options or services may be the key to attract further visitors to our region. Discounts may be obtained for travelers who visit a spa facility, later go out for a lunch, on the next day visit a fitness facility or a gym for having a good workout (Pucsok, unpub. res. 2010). A similar discount card system has been introduced in the city of Debrecen, which enables cardholders to use a wide variety of services (museums, restaurants, shops, fitness centers, spa facilities) in discounted price. Variety of packages may increase the number of tourists visiting hotels with wellness facilities, although it is difficult to prove statistical relationship between them. The lack of recreational outdoor (Nordic walking, trekking, mountain biking, yoga, etc.) options - at least in the examined region, may distract younger, middle-aged visitors. Adventure is becoming an increasingly important aspect of wellness tourism. Especially younger wellness tourists are attracted to outdoor adventures, which may be primary elements of their holiday. Nowadays, visitors are likely to add adventurous activities to their traditional wellness packages, which includes massage, meditation and hot spring bathing experiences [6].

[6] *https://www.cbi.eu/market-information/tourism/physical-wellness-tourism/europe/*

In the future it would be beneficial to discover the area of wellness tourism, not only locally but include other regions too. Common background and capabilities require joint actions to attract more tourists and to boost revenue in this area. It would be interesting to discover any different or similar trends, tendencies in these regions, in order to further develop facilities, and infrastructure of the hotels.

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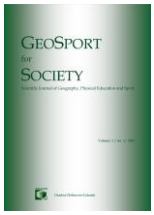

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Aspects regarding speed development in football game in 12 - 14 years old children

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Abstract: Football in schools, top level football, or football for masses have a wide range of issues studied by theory and methodology in order to render these football branches more effective, and to find other ways or means to achieve in optimal conditions the objectives of this sports area. Football theory comprises a wide array of knowledge structured into a coherent and logical system that describes and explains this phenomenon. Thus, theory is divided into two notions, one being the description of the content, and the other, its explanation. Football methodology takes over and adapts some general principles, methods and means of pedagogy, physical education, sports, sports training, but also of sports games methodology. It also includes principles, methods and means of training in football. In schools, football is part of the curriculum. In this context, we aim to study some aspects of speed development using football and its specific methods as intervention means. The age category we have addressed is represented by children aged 12-14 years. We chose to study speed development because it is an extremely important element in the acquisition of motor skills at this specific age in children.

Keywords: football game, speed, speed development, speed in football game

Introduction

Football is much more than a ball game, it is the sport played and loved in almost every country (Ilieş et al., 2016; Kozma et al., 2015; Scutti and Wendt, 2016).

Due to the elegance of its moves, boldness and courage, football is maintained in the top of sports, being known as the "King Sport", and it has a huge impact on any child who watches with intensity, desire and enthusiasm the game played by the favorite team, trying to imitate in front of friends the idols on screen, as soon as possible (Dumitrescu and Deac, 2009; Buhaş, 2015; Buhaş et al., 2017).

Football is also a game played in schools starting from the age of 5-6 years (Ionescu and Demian, 2007). Through football, children develop physically, mentally and socially, because it is a team game that requires a lot of communication between teammates (Allen et al., 2011; Graydon and Murphy, 1995; Kaiseler et al., 2012).

Football is part of the school curriculum alongside other sports games such as basketball, handball or volleyball, all having as their main objective a harmonious physical development of pupils (Carreiro and Onofre, 2005; Cristea et al., 2013). Likewise, each sports game develops motor skills and competences based on technical elements and techniques presented in each physical education class in schools (Lucaciu et al., 2015).

Football, which is provided in the school curriculum as well as the other sports games mentioned above, should be encouraged to be practiced also as an extracurricular activity (Cristea, 2015). The teacher is "forced" to deliver an attractive physical education and sports class to pupils, where they should come with pleasure and not because they are bound by school curriculum or schedule (Lavin, 2008).

This paper addresses some aspects related to speed development in football game in 12-14 years old children, as one of the most important motor skills.

Football has developed a lot since its occurrence and is still constantly developing in order to lead the game to another level, with competitions for all ages and categories: from football for masses to top level football (Bairner, 2011; Herman, 2016). The level at which football is practiced is very high, evolving in qualitative and quantitative terms (Dragoş, 2015; Marcu and Buhaş, 2014). The Romanian Football Federation periodically elaborates game and training concepts corresponding to all age categories, taking into account also the evolutionary trends at international level (Reilly and Williams, 2003).

Thus, being a collective sport, football engages young people to be more sociable, because a team must trust all its partners or colleagues (Ostojic, 2001). This sport is practiced based on specific game rules; it satisfies young people`s desire to compete, but, at the same time, the audience enjoys the beauty and spectacularity of the game (Thiebault, 1998).

Nowadays, football is a complex area of the social life (Ilieş et al., 2014). As a sport discipline, football is integrated into the theory and methodology of sports games and can be also found in the science of physical education and sports at global level (Burke et al., 1986; Brewer, 1990; Pantelis et al., 2011). Being a bio-psycho-socio-pedagogical synthesis discipline, it has several study elements: the game itself and its improvement, training rules and methodology in order to maximize collective and individual performance (Turpin, 1998).

The science that studies the laws of physical education and sports is the Theory and Methodology of Physical Education and Sport, where other sports disciplines fall in also. The science and study of football is considered to emerge from

the general theory of physical education and sports, and only so we can talk about football as a scientific discipline taught in higher education institutions, under different forms of classes for different study programs.

Aim

Football is one of the sports game concept elements that finds its applicability in the education units and forms aiming at training, qualifying and perfecting football specialists. All pupils must be provided with superior physical development elements, skills and strength, basic and secondary motor skills and abilities, and also with the ability to apply them in different conditions independently or individually, without the help of coaches or teachers. A harmonious physical development is very important in the life of both athletes and non-athletes individuals, remaining an important principle that expresses a general orientation of the instructive-educational process (Biddle, 1992). The practice of football in school is presented as a complex of elements that comprises activities developed for instructive-educational purposes during physical education classes and specialized activities, very well organized in sports clubs or special classes within the educational process, aiming at sports performance (Brustard, 1992).

Like other ball games, football, practiced either on a reduced or normal size football ground, has positive effects on practitioners and can supplement some of the traditional means of physical education, and helps physical and sports education to achieve its goals and tasks for all categories of pupils, starting with the primary cycle, continuing with gymnasium and ending with high school level. At the same time, in addition to traditional means, football practice in schools develops some motor skills at a higher level, including speed in all its forms.

Morphological and functional characteristics at the age of 12-14 years

Boys of 12-14 years old are in a complex stage of their development and growth at that particular age - puberty. The attention in children aged 12-14 years is unstable, which must be taken into account especially because children are alert and sensitive; therefore, care must be taken with regard to the use of certain words, and also a warm and familiar language combined with parental severity should be used. The locomotor system suffers the most obvious change: the length of the limbs increases at the expense of muscle strength because fibers stretch to the detriment of their thickness. The nervous system is not yet balanced, children's movements being still brusque at this age. The nervous system activities of children reaching puberty have a direct influence on the formation speed and stabilization of the main and secondary motor skills; at the same time, they are also favoring fatigue and are weakening to a fairly large extent the will and perseverance. The cardiovascular system also undergoes changes; because the heart is very voluminous compared to the thorax, the regulation mechanisms for blood circulation are very often disturbed, even at a very high level to a sustained effort. The respiratory system develops intensely during this period, the lungs increase in weight as well as in volume, and hence their anatomical capacity increases by 50%. At the same time, the amplitude of breathing increases to 300 ml from 230 ml, but the breathing frequency decreases (from 22 per minute at 11 years old, to 20 per minute at 13 years old).

Hypothesis

Our study started from the fact that speed, in all its forms of expression, has a great importance for the football game. The tests that we have used have been designed to develop the speed that pupils need in football game: the reaction speed, the movement speed, the execution speed and the specific speed. Through our tests we have also tried to develop the explosive force that pupils need in some important aspects of football.

Objectives

Speed in football game can be understood by the player's ability to move his body or a segment of his body in as short time as possible. If speed is poorly developed, it negatively influences other motor skills, and also the performance of tactical tasks on time. Speed is required for players in all actions they take, their running distance is rather small, 20-60m, but it`s linked to their position in the field or to the moment of the game. Players` movement speed is rather native, and it can be developed through continuous and systematic work. It is recommended to be developed during adolescence. This motor skill is influenced by the strength of lower limb muscles.

The importance of speed development in football

In order to develop speed, a continuous work throughout the year is necessary. Speed is the motor skill that can be easily lost. In order to develop the speed, an important role is played by the player's formation period, more specifically the period of childhood and junior ship. At this age, when the cerebral plasticity is very high, the child must learn to run correctly and get used to a disciplined work. Speed is characterized by determined genetic attributes of receiving, processing, or transmitting information to the external and internal environment through peripheral controls on the muscles. The development of this motor skill is a very important one, thus, in this case, it should not be seen as an innate talent that will erupt sooner or later. Even if a child has a talent for speed run, this being his main skill, speed must be given constant attention throughout the entire growth period in order not to be lost but improved. Between 11-12 years old, alongside with the improvement of movements, the speed improves greatly, and at 13-14 years old best results can be obtained regarding its improvement.

Material and method

The research was conducted at a high school having football groups. The duration of the research was 10 weeks. The training took place on the high school`s sport base. The tests were conducted on a number of 10 pupils – male athletes.

Test no. 1 – Accelerated run (sprint) 5 m.

This test aims at assessing the movement speed and response speed over a short distance of 10 meters. The athlete sprints at the sound signal behind the starting line, at the highest speed, stopping only after he passes the 10 m finish line.

Test no. 2 – Shuttle run 4x10 m

The test is made on a flat surface marked with two lines at a distance of 10m from each other, with poles at each end of the line in order to have a much better view of the

route. The runner is behind the starting line, runs at the highest speed to the other line and he has to overcome this line with both legs in order to be able to return.

Test no. 3 – Shuttle run 4x10 m

It is a specific exercise to determine the explosive force of lower limbs.

Test no. 4 - Accelerated run on a distance of 60 m

The exercise is also found in the school curriculum, but on a distance of 50 m. The departure is done behind the starting line, the run is at the highest speed, exceeding the finish line by another 2-3m in order to avoid slowing down before the imposed 60 m. Some researchers state that the test method is not considered a method itself, but only a procedure of the experimental method. The tests include all kinds of standardized and validated tests that apply to all research subjects, having a very accurate results assessment.

Results

The following tables present the initial, final and the arithmetic mean of the four tests we have used:

Table 1. Accelerated run (sprint) 5 m

No.	Player	Initial testing	Final testing	Mean
1	Z.S	1,98”	1,95”	1.96”
2	B.C	1,98”	1,96”	1,97”
3	A.E	1,95”	1,93”	1,94”
4	B.A	1,97”	1,95”	1,96”
5	T.G	1,95”	1,94”	1,94”
6	N.M	1,96”	1,96”	1,96”
7	F.S	1,94”	1,92”	1,93”
8	S.R	1,96”	1,93”	1,94”
9	V.J	1,99”	1,95”	1,97”
10	U.R	1,94”	1,93”	1,93”
Minimum		1,94”	1,92”	1,93”
Maximum		1,99”	1,96”	1,97”

Table 2. Shuttle run 4x10 m

No.	Player	Initial testing	Final testing	Mean
1	Z.S	10,4”	9,8”	10,1”
2	B.C	11,2”	10,2”	10,7”
3	A.E	10,7”	9,9”	10,3”
4	B.A	11,5”	10,4”	10,95”
5	T.G	12,0”	11,2”	11,6”
6	N.M	11,9”	11,2”	11,95”
7	F.S	10,1”	9,7”	9,9”
8	S.R	11,2”	10,3”	10,75”
9	V.J	12,2”	11,5”	11,85”
10	U.R	10”	9,6”	9,8”
Minimum		10”	9,6”	9,8”
Maximum		12,2”	11,5”	11,85”

This test attempted to develop the reaction and short-distance acceleration speed. Most pupils have achieved very good results. We can observe the obvious improvement of the final results compared to the initial ones (table 1).

Following this test, both speed and the force of the lower limbs are developed at the same time. The best result after the final testing was of 9.6 seconds, improved by 0.4 hundredths, while the lowest result was of 11.5 seconds, but improved by 0.7 hundredths (table 2).

Table 3. Standing long jump

No.	Player	Initial testing	Final testing	Mean
1	Z.S	1,72 m	1,82 m	1,77 m
2	B.C	1,75 m	1,80 m	1,75 m
3	A.E	1,70 m	1,75 m	1,72 m
4	B.A	1,69 m	1,73 m	1,71 m
5	T.G	1,72 m	1,77 m	1,74 m
6	N.M	1,74 m	1,78 m	1,76 m
7	F.S	1,77 m	1,84 m	1,80 m
8	S.R	1,75 m	1,80 m	1,77 m
9	V.J	1,72 m	1,76 m	1,74 m
10	U.R	1,74 m	1,80 m	1,77 m
Minimum		1,69 m	1,73 m	1,71 m
Maximum		1,77 m	1,84 m	1,80 m

After performing the standing long jump, pupils were aware that the development of expansion and lower limb force helps developing the explosive reaction speed; lower limbs force in relation to speed is required in the football game as players need a very well-developed reaction speed (table 3).

Table 4. Accelerated run (sprint) 60 m

No.	Player	Initial testing	Final testing	Mean
1	Z.S	9,0”	8,6”	8,8”
2	B.C	8,7”	8,5”	8,6”
3	A.E	8,9”	8,3”	8,6”
4	B.A	8,5”	8,4”	8,45”
5	T.G	9,1”	8,8”	8,95”
6	N.M	9,4”	9,2”	9,3”
7	F.S	8,5”	8,2”	8,35”
8	S.R	8,9”	8,7”	8,8”
9	V.J	9,3”	8,9”	9,1”
10	U.R	9,0”	8,7”	8,85”
Minimum		8,5”	8,2”	8,35”
Maximum		9,4”	9,2”	9,3”

This last test created an emulation between competitors, each of them wanting to win. After the final test, the best result was of 8.2 seconds, and the lowest was of 9.2 seconds, still a good result taking into consideration their training conditions (table 4).

Conclusions

The activity of the tested pupils is fairly good related to their age: 12-14 years old. We analyzed the results obtained from the exercises used to develop the speed in the football game, some of them generating very good results for a group of pupils-athletes. During the 10 weeks of study, we have been able to harmonize the working group, so that the results to be as conclusive as possible. At the same time, the four final tests were well applied, ordered and with a 100% presence of the 10 pupils undergoing these tests. The reaction of the subjects was a positive one; they were constantly trying to self-defeat. During the training, pupils have had the necessary motivation to give their best for each class or training in what regards the competition with themselves. The communication of the results from the initial tests provoked a state of emulation and a sense of self-denial, observed in the results of the final tests. These trainings did not lack the exercises for learning, strengthening or improving the technical elements, as these pupils are still in the process of accumulation.

The exercises used for speed development were also present during the first part of the training, during the warming up period, after running and jumping exercises in order to increase the heart rate. Other used exercises were shuttle ones, some short ones of 4x5 meters, accelerated running with direction changes on short distances from one pole to another in different directions, but also the use of startups from different positions to an audible or visual signal, which have proven very useful for reaction speed development. In order to develop the execution speed and explosive force, during the warm up for the testing we have used some completion exercises, ball passing between two pupils at high level on distances of 10-20 meters or more jumping exercises. At the end of the trainings, after a football game with a reduced number of players, we introduced relay races, on teams, because it helps develop the speed, and other competitive games between one or more teams, because the competition with one another increases the winning spirit and the participants are very focused and motivated to obtain the victory for their own team. Most exercises were put into practice during these trainings, combined both with other exercises specific to football game and with tactical training.

We have been able to create emulation and a state of expectation regarding the improvement of outcomes among pupils. For any 12-14 year old pupil, these tests are annoying or "tiring", because they are particularly fascinated by the ball. Through several contest games, we tried to capture their attention and make them understand

football as it is, that is a lot of work. Only through work, ambition and will you can improve yourself and be motrically and harmoniously developed.

In conclusion, pupils did well, some results being very good, and they all passed through a series of exercises and tests that will change their attitude, motivation and desire to practice a sport which is essential to their physical and mental development.

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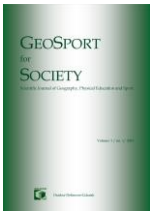

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Sports career versus educational career

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Abstract: Premises. Athletes are dealing with additional challenges in the management of double careers, having to dedicate countless hours to sports while respecting the educational, academic rigors, which generates the neglect of one of activities at the expense of the other. Objectives. The main objective of this study was to investigate the way of approach sports career and training, as priority activities carried out in parallel. Subjects and methods. The sample included a total of 300 performance athletes at the representative sports clubs of the country's N-V region (Bihor County, Bistriţa-Năsăud, Cluj, Maramureş, Satu Mare, Sălaj). In conducting the study the method of investigation was used by administering a questionnaire. Results. The analysis of recorded data shows that the subjects of the first performance value echelon (N=176, M=2.78+1.02) allocate less time to the school preparation, compared to the subjects of the second echelon (N=124, M=3.05+1.19), positioning sports career as a priority activity. Female athletes show greater concern for study and training, compared to male athletes (χ^2=16.92, df.=1, p=0.000). Conclusions. The study conclusions emphasize the trend of athletes working in higher performance echelon, to focus mainly on sports success, as well as a more active concern of female subjects for study and training.

Keywords: athletes, sports career, educational career, double career

Introduction

The complexity of life and the challenges of the contemporary world underlines the importance of factors contributing to the achievement of education and sport training. Practiced for various reasons – for pleasure, for the victory against the opponent, for the value of relations with coaches and teammates, for personal achievements to overcome physical and emotional boundaries – sport

attracts millions of participants, people qualified with a variety of professions associated with a perceived prestige according to the social groups to which they belong. It offers the environment in which young people can be educated, learned to compete, is a means for building positive relationships to promote personal development. The ultimate goal of sporting youth participation "should be the promotion of lifelong physical activity, recreation and healthy competition skills that can be used in all aspects of future activities" (Brenner, 2007, p. 1244).

Any activity, any act of conduct arises due to reasons which direct and support the human being in addressing and solving problems (Nuț, 2009). The reasons for sport participation, regardless of the sports branch, are varied, but "most are related to the fact that the practice of sport offers the most powerful and diverse satisfaction" (Epuran and Holdevici, 1980, p. 22). For whatever reason, any athlete wants to win, to achieve the highest level of performance.

In contemporary society, education is one of the fundamental dimensions of human development, it is "the condition and progress of humanity" (Cucoș, 2000, p. 45). Economic development, increasing the complexity of social structures has led to the expansion of educational systems, extending the chances of access to education, increasing the period of schooling, boosting the role of the school in society as "a court credited with the function of selecting and allocating statuses and roles"(Gal, 2010, p. 31). The followers of the theory of "sport as an education" argue that sport participation is equally important for the development of pupils as well as educational, academic experience, which requires support in the formation of adolescents, therefore sport should not be considered an extracurricular activity, but an educational one (Rowles, 2015).

The aim of the study was to present how athletes perceive the motivation of dual careers management – sports activity and educational commitment, vocational training.

Objective: the main objective of this study was to investigate how athletes approach sports and vocational training, as priority activities carried out in parallel.

Hypothesis: focusing mainly on sports career influences the concern for study, damaging educational performance and training.

Subjects and methods

The sample included a number of 300 performance athletes (N=173, 57.7% – male, N=127, 42.3% – female gender) legitimately in the representative sports clubs of the country's N-V region (Bihor County, Bistriţa-Năsăud, Cluj, Maramureș, Satu Mare, Sălaj), participants in national and international competitions, in the first (N=176,) and second (N=124) staggering performance value, with a minimum age of 18 years, Romanian citizens.

The question of research led to the use of the following methods: bibliographic documentation, sociological inquiry by administering the questionnaires, the statistic-mathematical method used for analyzing recorded data. A questionnaire was developed for conducting the study, set for the theme and objectives of the research. The collection of data was preceded by a training stage in which the managers of sports clubs were contacted, to present the intention together with the

research topic and to obtain the agreement to be part of the study. The questionnaire was conducted between February – June 2016. The recorded information was processed using the statistic-mathematics method, software applications (SPSS – T-Test, χ^2; Excel – Graphical representation).

Results

The analysis of the recorded results highlighted relevant aspects concerning the preoccupation of athletes for study and sports, integrated activities under the concept of dual career. In the hierarchy of priorities, the athletes of the first echelon value performance put the sports career first, compared to the athletes of the second echelon (χ^2=9.02, df.=2, p =0.011). Female subjects grant importance to both sports careers and the preparation of future professional careers, while in the case of male subjects the priority focus on sports performance is more evident (χ^2= 16.92, df.=1, p=0.000).

Education, professional qualification are objectives positioned secondly by an important part of athletes (64.3%), focusing on the issue after retirement from the sports career (Fig. 1). For 6.3% of subjects "educational/vocational training" (Fig. 2) is a priority, arguing that it is an "important objective to achieve" (10%) (Fig. 1).

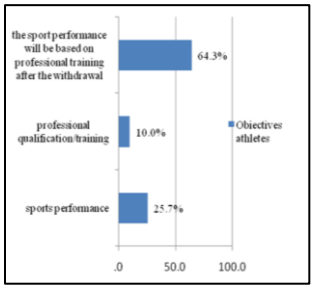

Figure 1. Goals pursued by athletes

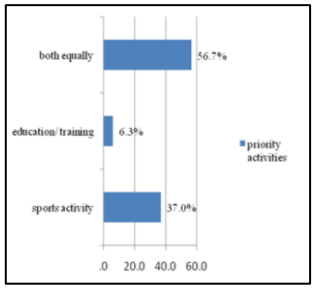

Figure 2. Priority of activities appreciated by athletes

The aspiration for sport performance was reflected by the way in which they choose to position sports activity and the objective of being selected in the national group, in the hierarchy of priorities. Most subjects – 56.7% (Fig. 2) claim to be concerned by both with education/training and sports activity, as appears from the analysis of the answers to the question "As importance, which of the activities are positioned first?" (Fig. 2). This response could be a desirable one, if you corroborate it with the objectives considered important, where in the first place and with a majority percentage (90%), the sport performance is evoked, according to the answers to the question "What is the most important objective pursued by you? " (Fig. 1).

Association of gender variables and performance value indicates that the probability that male subjects should activate in the first staggering value of the performance is higher, compared to female subjects, whose probability of belonging to the second echelon is higher. For female subjects, the focus on sports career is more evident in the case of those selected in the national group, the results suggesting statistically significant differences (χ^2=8.998, df.=2, p=0.011). In the case

of male subjects it is possible to note the concern for the sports career regardless of the selections in the national group (χ^2=3.174, df.=2, p=0.205) (Table 1).

Table 1. Hierarchy of objectives' selection in the national group according to gender

Gender	Item	Answer	You have been selected for the national group		χ^2	p
			yes	no		
M	What is your most important goal?	Sports Performance	34,0%	30,4%	3.174	0.205
		Qualification/Training	4,3%	11,4%		
		Sports performance, following the withdrawal of sports to focus on training	61,7%	58,2%		
F	What is your most important goal?	Sports Performance	16,9%	16,1%	8.998	0.011
		Qualification/Training	4,6%	22,6%		
		Sports performance, following the withdrawal of sports to focus on training	78,5%	61,3%		

For male subjects he main objective pursued was the development of sports career, compared to female subjects (χ^2=10.80, df.=2, p=0.004). The relationship between the category of sport they practiced and the views of athletes on the orientation to sports performance or study activity, supported by the coach was statistically significant (χ^2=15.75, df.=2, p=0.000). The assertion of the subjects of the sports games to be encouraged by the coach predominantly to the sport activity is more evident, compared to subjects in the category of individual sports, whose concern has been recorded both fechlonor sport training and for school training also. The interest of the athletes within sports games for the sports career can also be understood by the amount of financial benefits, especially for athletes working in the first staggering performance value.

Table 2. Perception of orientation in dual career supported by coaches according to selections in the national group

Gender	Item	Answer	As a sportsman you were encouraged by the coach to focus your priority on?			χ^2	p
			Sport Training	Equally sports training and education	equally sports training, school, family, social life		
M	Have you been selected for the national group?	yes	63,8%	26,6%	9,6%	7,37	0,025
		no	44,3%	45,6%	10,1%		
F		yes	60,0%	21,5%	18,5%	24,44	0,000
		no	24,2%	64,5%	11,3%		

Athletes selected in national groups claim to have been encouraged by coaches to focus on sports development primarily, aiming at maximising sport performance,

meaningful relationship in terms of statistics, both in the case of male subjects (χ^2=7.37, df.=2, p=0.025), and in the case of female subjects (χ^2=24.44, df.=2, p=0.000) (Table 2). Analyzing the data in Table 2, it can be seen that male athletes who have been selected in national groups perceive, for the most part, encouraging coaches mostly to sport activity, compared to female subjects, differences being statistically significant.

Athletes, in particular the segment of those focused on the great performance, considered that the school/academic activity influences in "small measure" or in "very little measure" sports achievements (52.6%), but for 36.4% time is insufficient for the efficient management of the two activities, for 9.7% being harmed the sport activity "very much", and for 26.7% "really great" (Fig. 3).

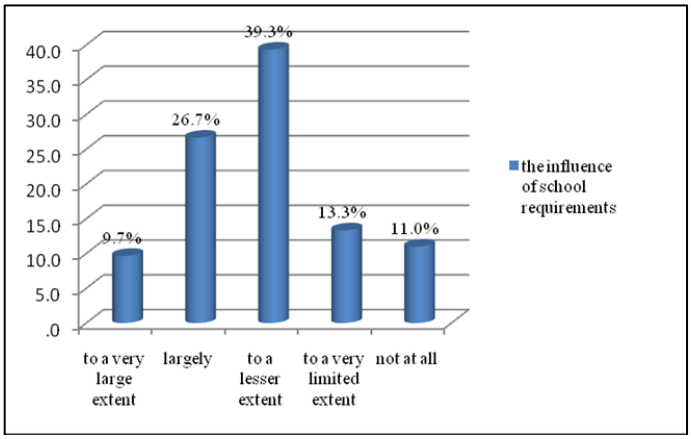

Figure 3. Influence of school training on sporting performance

Comparing the groups of athletes in the first and second performance value echelon, on their perception of the influence of time allocated to the achievement of school requirements on sporting performance, significant difference was recorded in terms of statistics – t(298)= - 2.05, p=0.04. The subjects of the first echelon (N=176, M=2.78$\pm$1.02) allocate significantly less time to school preparation compared to the subjects in the second echelon (N=124, M=3.05$\pm$1.19). As a result, the more time they will allocate school preparation, the time for sporting training will be reduced, with negative influence on sports performance.

The mission of the educational institution is the training of pupils and students in accordance with the requirements of society. The subjects accuse the education system regarding "developing highly-loaded school programs, demanding requirements for students and students involved in sport performance", having to manage time among school, sports and social life. Although the knowledge taught in courses is appreciated by 43.3% of subjects as important "very much" for their formation (Fig. 4), absences from courses due mostly to sports activity (99%) make the assimilation of information to be carried out with syncope, because the recovery of courses involves "transcription of colleagues' courses" (63.7%) or "individual training" (24%), without further recovery of lost lessons (Fig. 5).

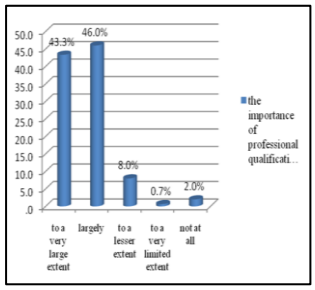

Figure 4. The importance of the courses

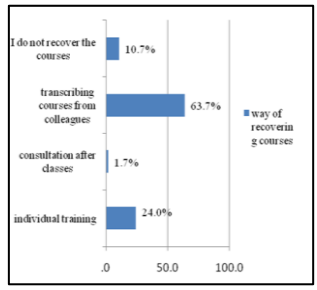

Figure 5. Methods to recover courses

The probability that the subjects of the first staggering performance value to give importance to personal and professional development is less than the subjects assigned to the second echelon (χ^2 =15.05, df.= 4, p=0.005).

The data recorded with reference to the relationship between the gender variables and the relevance of the knowledge taught in educational institutions showed a statistically significant difference (χ^2=17.73, df.=4, p=0.001). Female subjects give greater importance to education and training towards male subjects, attitude confirmed by statistically significant difference (χ^2=11.74, df.=1, p=0.001), recorded between gender variable and promotion of the baccalaureate exam, girls registering higher promotion.

By comparing the groups of subjects (male and female), statistically significant differences (t(298)=3.94, p=0.00) were found on the importance of teaching in courses. Male subjects pay less attention to school preparation (N=173, M=1.87 $\pm$0.85), compared to female subjects (N=127, M=1.51$\pm$0.68).

Achieving school performances is not an easy approach for pupils or students, in terms of high energy consumption for sport training. Most of the subjects appreciated that the time spent on sports training and competitions influences the school results "very much" and "largely" – 49.7%, (Fig. 6).

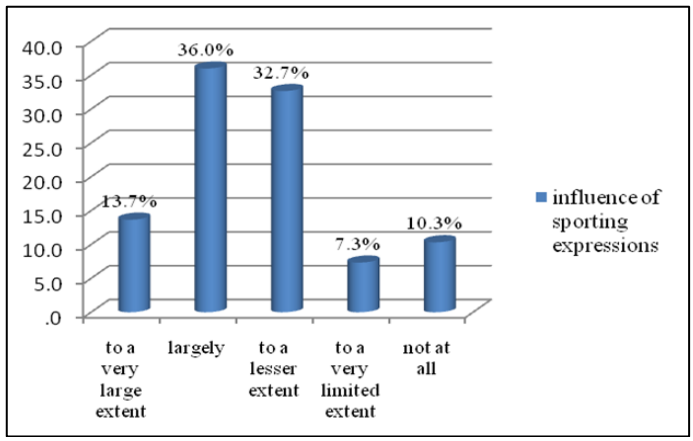

Figure 6. Influence of sports demands on school performances

Athletes from sports games perceive the problem of the time needed for sports activity as having negative influences on school performance, rather than athletes from individual sports. This context can generate pressure on athletes, putting athletes in front of a possible school dropout, rather among team sport, than in the case of individual sports (χ^2=9.80, df.=4, p=0.002).

The results of the t-test test showed statistically significant differences – t(298)= -2.60, p=0.01, as regards the perception of the subjects of the first and second staggering performance values, on the influence of time allocated to training and sport competitions on school/academic performances. Subjects of the second-performance value echelon (N=124, M=2.85$\pm$1.21), appreciates that the involvement in the sports career more influences the school preparation, compared to the subjects in the first value echelon (N=176, M=2.51$\pm$1.04). By spending more time on sports-specific activities, there will be less time to study and prepare for future professional careers, negatively impacting school/academic performance.

Discussion

The duration of the sports career is different for each athlete, relatively short and requires the completion of certain stages from initiation to completion. A small percentage of athletes end up becoming top athletes, gaining earnings to ensure a decent living, but others, most of the athletes, reach the end of their sports career with no income sources to help them have a decent life and often without to accumulate thorough training through theoretical and practical studies. With the choice of sports performance route, subjects tend to focus mainly on sports activity, especially in the case of athletes who end up performing in the first staggering value of performance (χ^2=9.02, df.=2, p=0.010) and those selected in the national group (more evident among female subjects summoned to the national group(χ^2=8.998, df.=2, p=0.011).

The athlete, under the influence of intrinsic or extrinsic motivations, often supported by the coach, prepares to maximize performance, reaching situations of neglecting other aspects of family life, educational or Social. The concern for building successful sports career is more emphasized among male subjects (χ^2=16.92, df.=1, p=0.000), while female subjects pay attention to both sporting activity and education (χ^2=12.633, df.=2, p=0.002). This tendency to make greater efforts for academic training, registered among female subjects, has also been highlighted by Fuchs, Wagner, Hannola, Niemisalo, Pehme, Puhke, Marinsek, Strmecki, Svetec, Brown, Capranica and Guidotti (2016, p. 31). Whether or not they have selections in the national group or the value echelon in which they perform, for male subjects, the main objective was the sport performance (χ^2=10.80, df.=2, p=0.004). Concluding, it can be noted that male subjects are identified more strongly with sports status, positioning as a priority objective sports career, whether or not they fall in the echelon of elite sport. For female subjects, the situation is different, the sports that have been selected in the national group being more dedicated to sports career than those that have not reached this level of performance. According to López de Subijana, Barriopedro and Sanz (2015), men have a stronger sports identity than women (similar to the study of brewer et.al. 1993 apud López de

Subijana et al., 2015) and is more pronounced in the category of elite athletes' International competitive level and age category < 24 years (Lupo, mosses, Guidotti, Cugliari, Pizzigalli & Rainoldi, 2017).

The focus of the priority activity on the development of sports performance was encouraged by the coaches, the orientation stated mainly by the practitioners of sports games (χ^2=15.75, df.=2, p=0.000) and athletes convened at national groups, Both in the case of male-type subjects(χ^2=7.37, df.=2, p=0.025), and in the case of female subjects (χ^2=24.44, df.=2, p=0.000). In this context, athletes often get to be "over-educated" in terms of the physical aspects of sport training, but also "sub-educated" in terms of its psychic aspects "(MTS, 2000, p. 257) or other life situations.This direction of development is not perceived negatively by athletes if sports success means financial benefits and a different social state. The results of the study conducted by Siekańska and Blecharz (2014) Emphasize that sport-oriented people have a stronger sense of fulfillment in sport than outside of it, while education-oriented people have had a more Great fulfillment outside of sport. Dawn (2013) argues that encouraging athletes to focus on other activities than performing sporting performance (such as academic study) contributes to reducing stress related to competitive pressure and learning skills.

Socrates ' assertion, highlighted by Balch (2009) In his studies, refers to the fact that "there is only one benefit, knowledge, and one evil, ignorance" (p. 9), should draw the attention of the sports authorities, coaches who They tend to orient athletes to an exemplary sporting life, but with demands that limit interest in other social and educational or academic activities. Athletes dedicate such a lifestyle can reach the end of the sports career with a restricted informational baggage, limited to sports experience and less theoretical knowledge. Currently, as noted in Dawn (2013) "the requirements imposed on Olympic athletes and professionals in contemporary world sports are such that they must devote more and more to achieving excellence" (p. 374), which will generate an imbalance Between the time spent on sporting development and for other non-sport issues.

Athletes, while engaged in sports activity alongside training, are exposed to threats that can damage important life issues, on the one hand they engage in a sport career determined as time that does not guarantee their stability or success, and on the other hand due to the demands of sports performance, make sacrifices that affect education, personal life and future career. However, when allocating more time to school training, athletes perceive the restraint of the time needed for sports development, with an impact on sports performance. Dedicate to the sports career, the subjects in the first echelon (M=2.78$\pm$1.02) allocate significantly less time to school preparation compared to the subjects in the second echelon (M=3.05$\pm$1.19) – t(298)= - 2.05, p=0.04, a lower rate of possible sport abandonment. According to Hoffmann, Dirk and Wulff (2011), the highest rate of sport abandonment is among the youngest elite athletes in the age group.

Choosing a sports career or continuing university studies is a problem present in Romania, for high school graduates, faced with such a decision. Hirokazu Arai, Fumiya Suzuki and Shigeki Akiba (2016) underlined that it is difficult for an athlete to strike a balance between sports and private life, with intense daily energy

consumption, with overlapping educational programs at risk of dropping out of school sporting requirements. The schooling of athletes can not follow a natural course with those who do not practice sports, as the recuperation of the courses is done with syncope by transcribing lessons from colleagues (63.7%) or individual training (24%). McCormack and Walseth (2013) appreciated that during high school studies, the accumulation of educational capital is affected by elite athletes. In the absence of support strategies for balanced dual career careers, athletes in the first performance-level echelon focus mainly on sports career, limiting the interest for professional development (χ^2=15.05, df.=4, p=0.005). At the same time, female subjects follow more closely the professional qualification in parallel with the sports activity (χ^2=17.73, df.=4, p=0.001). This trend is supported by studies conducted on the axis of school outcomes reported to gender differences, which show that "girls have significantly better school results than boys, especially in some subjects" (2006, p. 178). Dedicated to sporting performance, subjects operating in the first staggering performance value allocate more time to activities specific to sports career development and less time for study and preparation of future professional careers, Negatively influencing school/academic performance (t(298)=-2.60, p=0.01). Subjects of the second-performance value echelon (N=124, M=2.85$\pm$1.21), appreciates that the involvement in the sports career more influences the school preparation, compared to the subjects in the first value echelon(N=176, M=2.51$\pm$1.04). It can be concluded that the main involvement in sports or educational activity, without ensuring a balance in the management of the two important activities in the development of athletes, will prejudice the performance of an activity at the expense of the other priorities, which was also evoked by Sorkkila, Aunola and Ryba (2017), which argues that "expectations of success in a single field may increase the risk of injury in another field" (P. 58). Performing school performances is not an easy approach for athletes, "compared to traditional students, sports students face additional challenges and energy consumption in achieving good academic and sporting performance" (Shuman, 2009, Gaston-Gayles, 2005, Gatmen, 2012 apud Lupo, Tessitore, Capranica, Rauter & Topic, 2012, p. 54). Academic success depends on the amount of time and energy that students invest in their study experience, regardless of life commitments, as Simpson and Burnett point out (2017).

Conclusions

Throughout the athletes' career, their main goal is to maximize performance, achieve sport excellence, which encourages athletes to position their educational activity, training either in a secondary plan or on the same level of priorities as sports activity, especially for high performance athletes. This tendency to concentrate predominantly on sports performance distracts attention from the importance of preparing athletes for the transition to another stage of life and has not achieved performances that will allow them a decent living (getting a living rent). Athletic dedication limits the time required for educational training to impair professional training, with differences in concern depending on the level of performance and gender.

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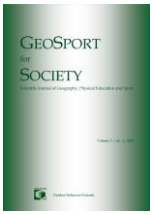

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Sport and physical activity engagement in Romania

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Abstract: The purpose of the current paper is to reveal the sports and physical activity engagement of Romanians at the level of the eight development regions, data corroborated with EU average values in this field. The raw data for this research were retrieved from the Special Eurobarometer 472, which were further on processed in ArcGIS maps. The study results indicate that there is a very low frequency of exercising, namely 63% of Romanians never practise sports, while only 6% practise sports regularly. Per development region the most inactively engaged citizens are those from the South-East (75%) and Central region (71%), while the share of those who exercise regularly is the highest in the North-East (12%).

Keywords: sport, physical activity, engagement, frequency, involvement

Introduction

Physical activity is defined very broadly as being anything that makes people move their body, thus requiring energy expenditure (Hallmann and Giel, 2018). Physical activity includes leisure time, occupational, transport and domestic related activity. Organized sports participation on the other hand determines important psychosocial benefits including increased self-esteem, well-being and social skills (Vella et al., 2016). Physical education and sports has witnessed a high impact on people's positive development from early childhood through adolescence and adulthood, being a lifelong process (Devecioglu et al., 2012). The regular practice of sports and physical activity reduces the risk of cardiovascular diseases, develops

muscular strength and endurance (Dragoş et al., 2017, Marinău, 2016), reduces depression and anxiety and is positively correlated with a high academic achievement (Camliguney et al., 2012; Muñoz-Bullón et al., 2017). Some studies indicate that physical activity engagement triggers a certain type of personality with athletes (Buhaş and Stance, 2017)

Sports and physical education are a basic component of a human's enhanced quality of life (Kozma, 2014; Ilieş et al., 2014; Guo et al., 2018). Its formative value is appreciated and valued at a world scale, being included in most educational curricula, thus having a direct impact upon people's health, a child's development and growth and building social skills. It relies on a set of rules, forms of organization and development for the improvement of a biometric and physical potential of the individual (Dacica, 2015). Through sports a competitive character is formed since childhood, Olympianism having also its formative role. Studies indicate that children who participate in organized sports are physically more active than those who do not (Ridley et al., 2018). Physical education and sports should build more active citizens meanwhile making them more creative and adaptive (Dobrescu et al., 2013).

In order for sports and physical education to become an integrant part of a person's life, more actors are involved in a harmonious intertwining such as pupil, school and family relations (Buhaş, 2014; Ilieş et al., 2018; Marcu and Buhaş, 2014; Dacica, 2015). Currently, the physical activity and outdoor sports stands in high competition with a static activity such as computer gaming which draws the young generation away from practicing healthy outdoor sports. But a happy combination between sports and computers is eSports, the latter aiming to be taken into account for becoming a medal event in the 2022 Asian Games (Hallmann and Giel, 2018). It is a new innovative trend which comes to meet the needs of the current generations whose daily life is linked to computers, but still having a desire to be actively involved in sports, although virtually. "eSports illustrate one possibility to reach the youth and connect them to at least virtual sporting activities, which again might induce growing interest to practice sports themselves" (Hallmann and Giel, 2018:14).

Sports should preferably be carried outdoor as indoor sports exposes the body to pollutants, as the increase in respiratory ventilation per minute during exercise triggers a greater amount of air inhalation and therefore of pollutants present in the air. "During exercise, air tends to be inhaled through the mouth, rather than passing through the nasal particle-filtering apparatus. The increase in air flow velocity results in the transport of pollutants into the deepest part of the respiratory system, increasing the risk to human health" (Andrade and Dominski, 2018:578).

Playing outdoors sports is very significant for the well-being of an individual, namely more than 60 min/day as indicated by the study of Kobel et al., (2015). People's sportive behavior can be intrinsically motivated (i.e. because people are aware of the benefits of active practice on health), extrinsically motivated or amotivated, all part of the self-determination theory (Granero-Gallegos et al., 2014). Most motivators for doing sports and physical activity at the level of the EU refer to

improving health, keeping a weight control, as well as for relaxation and improving physical performance (Special Eurobarometer Report, 472).

The lack of intrinsic or extrinsic motivation leads to the prevalence of childhood obesity. It is an increasing concern in Western Europe countries which seems to be attributable to a decrease in physical activity levels (Kobel et al., 2015). Kids' engagement in sports is correlated with more educated parents who trigger a more active behavior to their kids. Participation in sports is influenced by children's media consumption, active travel to school and having active parents (Kobel et al., 2015). "It is important to promote active sports engagement and an active lifestyle at an early stage in life as it later on it facilitates a carryover of healthy habits into adulthood" (Kobel et al., 2015: 238). Australia ranks among the first countries with the highest youth sports participation rates of 20-59% among the developed and developing country (Vella et al., 2016).

In order to increase sports participation in the 28 countries of the European Union a new EU Work Plan for Sport came into force in July 2017. It lays out the key topics which the member countries should prioritize until 2020 (Special Eurobarometer Report, 472): Integrity of sport will focus on good governance, safeguarding minors, fighting match-fixing, doping and corruption; The economic dimension focusing on innovation in sport, and the links between sport and the digital single market; Sport and society, focusing on social inclusion, coaches, media, environment, health, education and sport diplomacy.

According to a survey carried out in 2017 (Special Eurobarometer Report, 472) two in five Europeans (40%) exercise or play sports at least once a week, while 7% do so regularly, i.e. at least 5 times per week. Men are more physically engaged in sports than women. Another outcome revealed by the study shows that engagement in sports and physical activity is more prevalent in more educated people and those with a good financial status. Finland, Sweden and Denmark rank highest in the hierarchy while at the opposite end, Bulgaria, Greece and Portugal respondents (68%) are least likely to exercise or play sports, followed by Romania (63%) and Italy (62%).

In the case of Romania as the study analysis shows the frequency levels of doing sports are low given that 63% of Romanians never practice sports while barely 6% of Romanians practice sports regularly. Reported to the European Union average 46% of its citizens never practice sports.

Methodology

The data for the current research were retrieved from the Special Eurobarometer 472. The latest Eurobarometer on sport was carried out in the 28 EU Member States in December 2017 and 28,031 EU citizens from different social and demographic categories were interviewed, a survey carried out by the European Commission- Directorate General for Education, Youth, Sport and Culture.

From this broad analysis we selected the data referring to Romania (cf. Special Eurobarometer 472, 2017). Thus, according to the survey, a sample of 1095 respondents was considered, among which 570 women and 525 men. The age range was between 15-75 years old, proportionally coming from the eight development regions of Romania (table 1).

The current survey analyzed the frequency and levels of engagement in sport and other physical activity such as cycling, dancing, gardening; the time spent sitting on a usual day (at a desk, studying, watching TV); the motivators and barriers for sport participation as well as the opportunities for sport participation and supporting the community through sport participation (cf. Special Eurobarometer 472).

According to these items maps were drawn for the eight development regions of Romania in the ArcGIS program, by processing the raw data coming from the Special Eurobarometer 472, 2017 thus revealing the prevalence of each of the analyzed item.

Table 1. Socio-demographic breakdown
Source: Special Eurobarometer 472

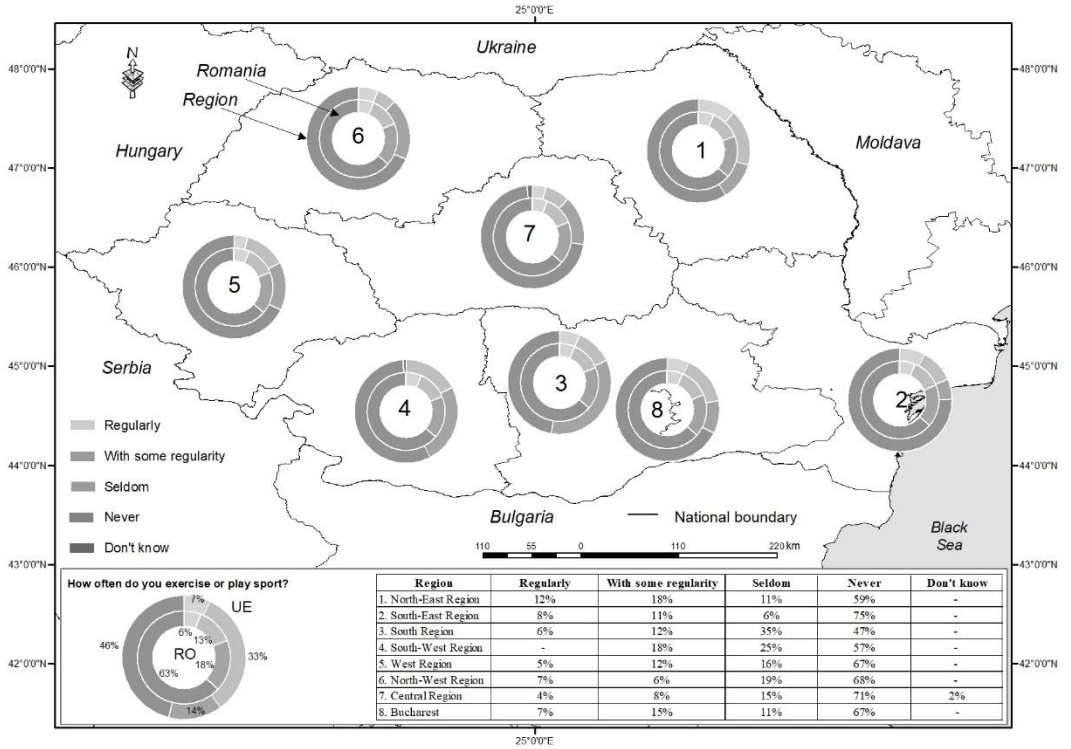
	Gender		Age				Socio-professional category							
	Man	Woman	15-24	25-39	40-54	55+	Self- employed	Managers	Other white collars	Manual workers	House persons	Unemployed	Retired	Students
1	76	84	42	28	37	53	7	12	10	34	26	0	38	33
2	65	61	14	28	27	57	6	13	8	24	17	2	46	10
3	91	66	22	36	39	59	13	3	17	41	18	7	48	9
4	37	67	9	41	30	24	0	14	34	28	1	5	15	7
5	40	53	7	29	18	39	8	10	5	30	6	3	28	3
6	55	75	10	22	30	68	6	9	10	34	8	2	55	6
7	51	67	14	25	32	47	7	1	6	52	8	5	34	6
8	68	50	13	39	23	43	4	16	26	25	2	0	35	9
	483	523	131	248	236	390	51	78	116	268	86	24	299	83

Results and debates

In order to create an image of the Romanians' behavior regarding sports and physical activities, nationally and by development regions, the following defining indicators were analyzed: the frequency of sport and other physical activities engagement; time spent doing physical activity and sitting; motivators and barriers to sport participation; available support for sport participation in citizens' local area; supporting the community through sport activities.

The answers to the question "How often do you exercise or play sports?" reveal that 63% of Romanians never practice sports, while only 6% practice sports regularly. Relative to the EU, percentage differences are quite distanced for those who do not practice sports, in Europe this percentage is 46%, compared to 63% in Romania. The analysis of the frequency of practicing sport at the level of development regions in Romania indicates some oscillations that derive from the physico-geographic particularities specific to each development region. Thus, in terms of the percentage of those who never exercise or play sports, the highest

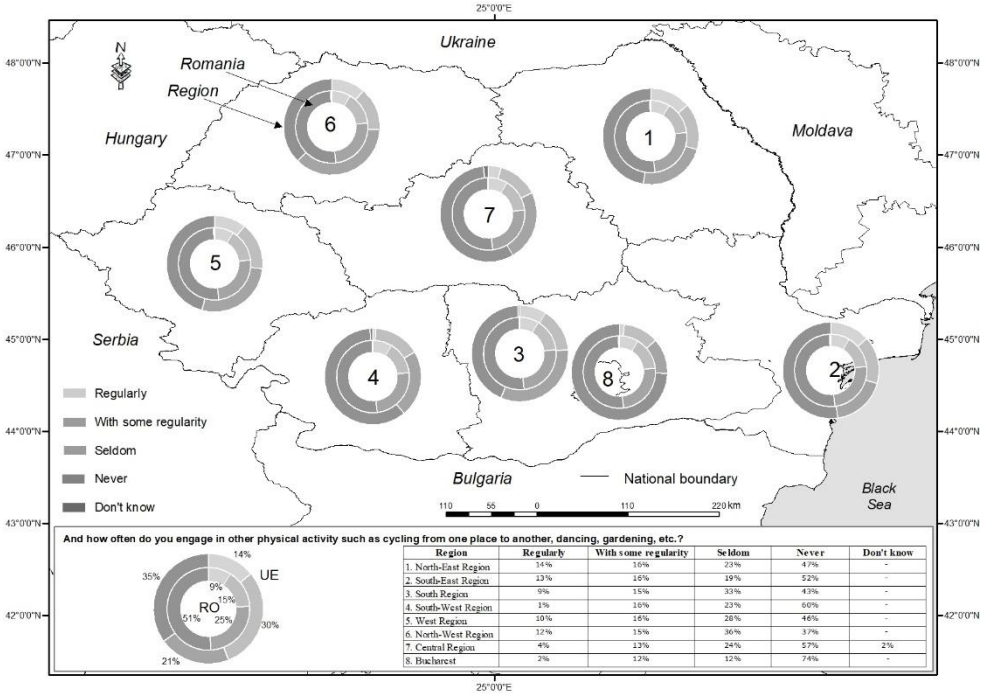
values were recorded in the South-East (75%) and Central part (71%), unlike the South regions (47%) and South-West (57%), while the share of those who exercise regularly was higher in the North-East (12%) and South-East (8%) regions compared to the South-West (0%) and West (4%) regions (Fig. 1).



Region	Regularly	With some regularity	Seldom	Never	Don't know
1. North-East Region	12%	18%	11%	59%	-
2. South-East Region	8%	11%	6%	75%	-
3. South Region	6%	12%	35%	47%	-
4. South-West Region	-	18%	25%	57%	-
5. West Region	5%	12%	16%	67%	-
6. North-West Region	7%	6%	19%	68%	-
7. Central Region	4%	8%	15%	71%	2%
8. Bucharest	7%	15%	11%	67%	-

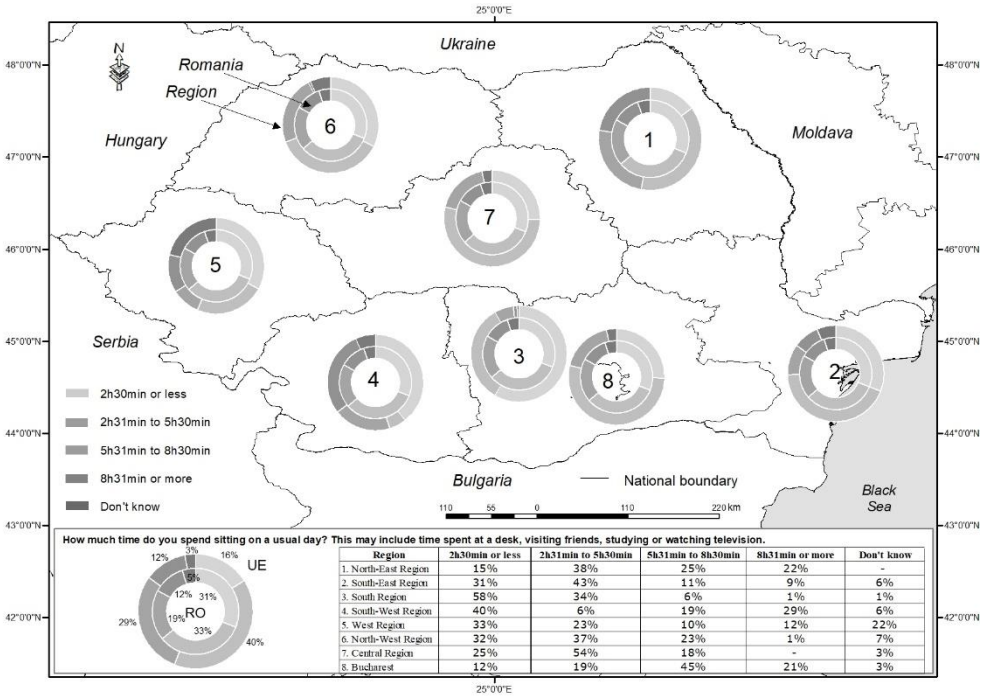
Figure 1. Frequency of exercise or playing sport
Source: Data processed based on Special Eurobarometer 472, 2017

From the analysis of the frequency of respondents' engagement in other physical activities such as cycling from one place to another, dancing and gardening, it comes out that the share of those who regularly take part in it is of 24% compared to those who have not or only rarely (76%) engaged in physical activity (Fig. 2). By correlating these values to those of the EU, the share is higher for those engaged in various physical activities in the EU (44%), compared to only 24% in Romania. The analysis of the frequency of the Romanians' engagement in other physical activities such as cycling from one place to another, dancing, gardening, etc., at the level of the development region, highlights the existence of a similar trend similar to that specific in Romania, defined by a series of value oscillations, for each individual typological category. Thus, the development region with the lowest level of the citizens' engagement in other physical activity was Bucharest and South-West (74% and 60%, respectively, never performed other physical activities) while higher values were recorded in the North-East and South East region (14% and 13% of respondents practise regularly other physical activities) (Fig. 2).



Region	Regularly	With some regularity	Seldom	Never	Don't know
1. North-East Region	14%	16%	23%	47%	-
2. South-East Region	13%	16%	19%	52%	-
3. South Region	9%	15%	33%	43%	-
4. South-West Region	1%	16%	23%	60%	-
5. West Region	10%	16%	28%	46%	-
6. North-West Region	12%	15%	36%	37%	-
7. Central Region	4%	13%	24%	57%	2%
8. Bucharest	2%	12%	12%	74%	-

Figure 2. Engaging in other physical activities such as cycling, dancing, gardening
Source: Data processed based on Special Eurobarometer 472, 2017



Region	2h30min or less	2h31min to 5h30min	5h31min to 8h30min	8h31min or more	Don't know
1. North-East Region	15%	38%	25%	22%	-
2. South-East Region	31%	43%	11%	9%	6%
3. South Region	58%	34%	6%	1%	1%
4. South-West Region	40%	6%	19%	29%	6%
5. West Region	33%	23%	10%	12%	22%
6. North-West Region	32%	37%	23%	1%	7%
7. Central Region	25%	54%	18%	-	3%
8. Bucharest	12%	19%	45%	21%	3%

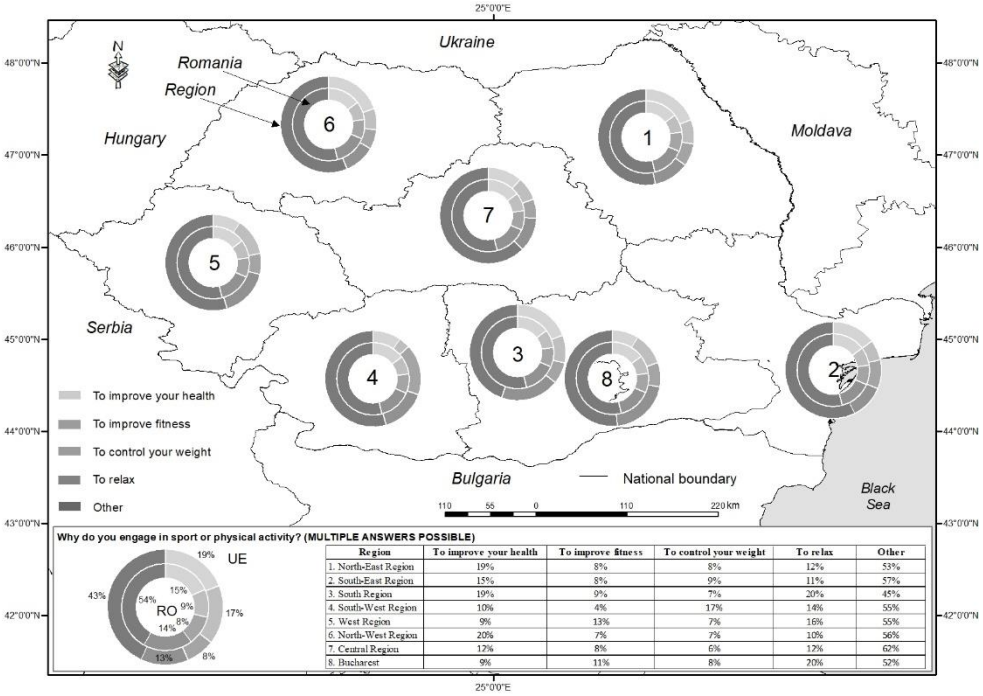
Figure 3. Time spent doing physical activity and sitting (at a desk, studying and watching TV)
Source: Data processed based on Special Eurobarometer 472, 2017

Time is a precious resource in the daily management of human activities, and the way we spend it has also implications in the decision to carry out some physical and sporting activities. Consultation of the target group on how they spend time (at a desk, visiting friends, studying or watching television) revealed the following typological categories: 2h30min or less - 31%; 2h31min to 5h30min - 33%; 5h31min to 8h30min - 19%; 8h31min or more - 12%; Do not know - 5%. By reporting the percentage values obtained at the level of Romania to those specific to the European Union, there are lower values for Romania in terms of time spent at the desk, visiting friends, studying or watching television. The tracking of this indicator at the level of development region reveals the existence of major differences, so the highest values (8h31min or more) were recorded in the South-West (29%) and North-East regions (22%), while the lowest values were recorded in the Central (0%), South (1%) and North-West (1%) regions (Fig. 3).

Some of the factors generating motivation in the direction of sport and physical activity are the following: to improve health (15%), to relax (14%), to improve weight (9%), to improve fitness (8%), other (54%). In the category "Other" enters: to be with friends; to make new acquaintances; to meet people from other cultures; to improve physical performance; to improve your self-esteem; to develop new skills; for the spirit of competition; to better integrate into society; to improve the physical appearance; to counteract the effects of aging; to have fun; do not know. From the analysis of the motivational factors regarding the practice of sport and physical activities in Europe, Romania and in the development regions of Romania, it is revealed that there is a prevalence of the following factors: to improve health, to improve fitness (Fig. 4).

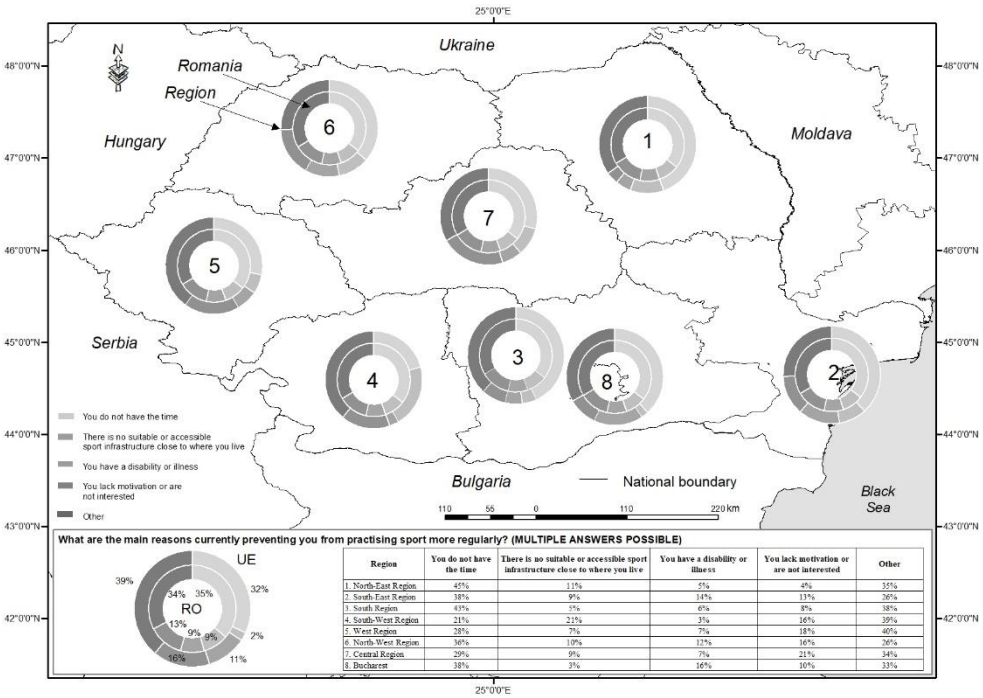
The population was surveyed about which are the barriers that the respondents have indicated as hindering them to exercise, such as: you do not have the time, there is no suitable or accessible sports infrastructure close to where you live; you have a disability or illness; you lack motivation or are not interested; other. In the category "Other" it enters: it is too expensive; you do not like competitive activities; there is no suitable or accessible sports infrastructure close to where you live; you have a disability or illness; you do not have friends to do sports with; you feel discriminated against/by other participants; you lack motivation or are not interested; you are afraid of the risk of injuries; you are already doing sports regularly; do not know. A relatively similar situation, with some oscillations, we find it both at the level of Europe and at the level of each development region in Romania (Fig. 5). At the level of Romania most respondents replied that the most important barriers are the lack of available time (50%), followed by the lack of motivation (18%) and no accessible infrastructure (13%).

Consultation of the population about the opportunities of practicing sport and physical activities in Romania led to the following typological categories: total agree (46%); total disagree (43%); do not know (12%). The situation at European level on this issue is as follows: total Agree (39%); total disagree (49%); do not know (12%). From the presented data we can see the prevalence of opportunities at the EU level, compared to those existing at the level of Romania. The analysis of the opportunities at the level of the development regions reveals a relatively similar trend, with some percentage differentiations from one region to another (Fig. 6). Most opportunities and support for practicing sport and physical activities are offered by the Bucharest and West regions, while at the opposite end are the Central and South-East regions.



Region	To improve your health	To improve fitness	To control your weight	To relax	Other
1. North-East Region	19%	8%	8%	12%	53%
2. South-East Region	15%	8%	9%	11%	57%
3. South Region	19%	9%	7%	20%	45%
4. South-West Region	10%	4%	17%	14%	55%
5. West Region	9%	13%	7%	16%	55%
6. North-West Region	20%	7%	7%	10%	56%
7. Central Region	12%	8%	6%	12%	62%
8. Bucharest	9%	11%	8%	20%	52%

Figure 4. Motivators to sport participation
Source: Data processed based on Special Eurobarometer 472, 2017



Region	You do not have the time	There is no suitable or accessible sport infrastructure close to where you live	You have a disability or illness	You lack motivation or are not interested	Other
1. North-East Region	45%	11%	5%	4%	35%
2. South-East Region	38%	9%	14%	13%	26%
3. South Region	43%	5%	6%	8%	38%
4. South-West Region	21%	21%	3%	16%	39%
5. West Region	28%	7%	7%	18%	40%
6. North-West Region	36%	10%	12%	16%	26%
7. Central Region	29%	9%	7%	21%	34%
8. Bucharest	38%	3%	16%	10%	33%

Figure 5. Barriers to sport participation
Source: Data processed based on Special Eurobarometer 472, 2017

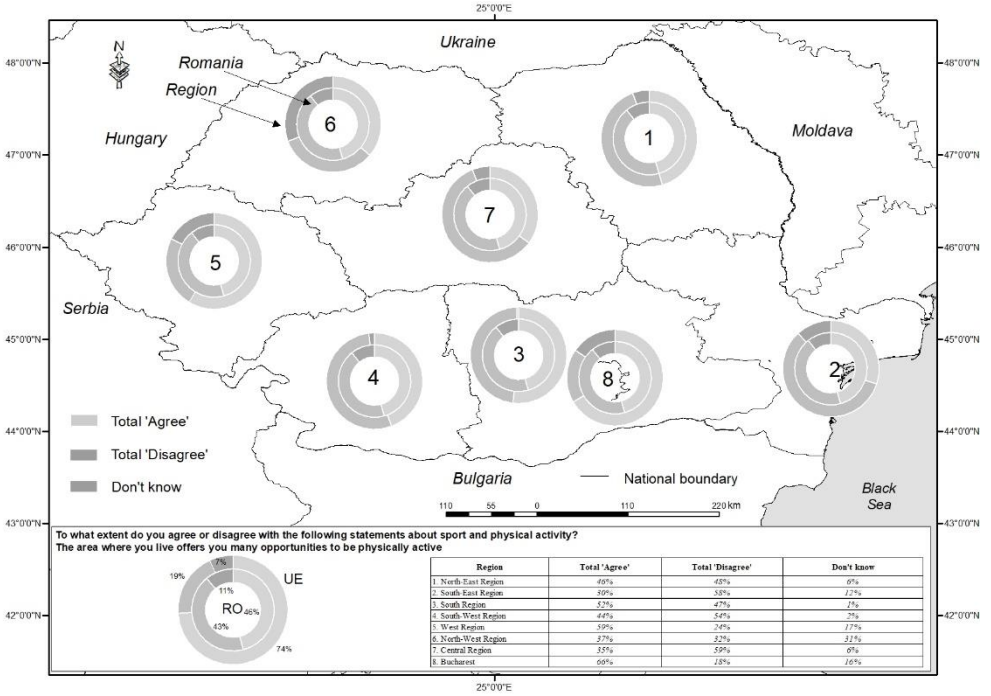


Figure 6. Opportunities for practicing sport in citizens' local area
Source: Data processed based on Special Eurobarometer 472, 2017

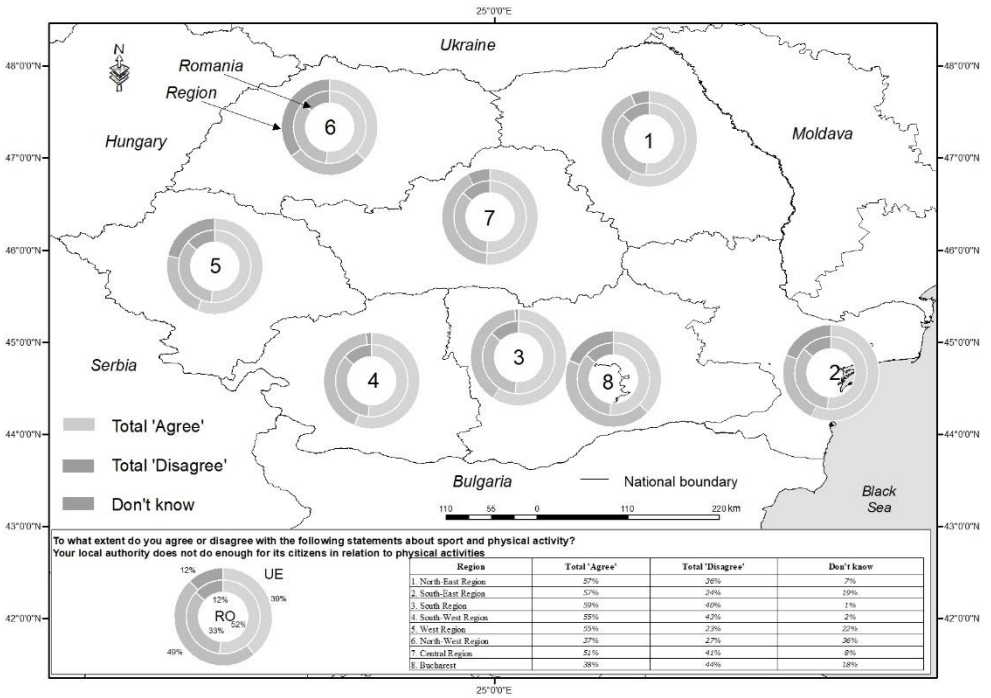


Figure 7. Supporting the community through sport activities
Source: Data processed based on Special Eurobarometer 472, 2017

Consultation of the public about the involvement of public authorities in supporting sports and physical activities in Romania has led to the following typological categories: total agree (52%); total disagree (33%); do not know (12). The situation at European level on this issue is as follows: total agree (39%); total disagree (49%); do not know (12). The perception of the involvement of public authorities in supporting sport and physical activities at EU level is similar to that of the opportunities offered by the space they live in. In Romania there is an increase in public confidence in the involvement of public authorities in support of sport and physical activities (52% total agreement). Analysis of this indicator at the level of development regions shows a relatively similar evolution, with some percentage differentiations from one region to another (Fig. 7). South, North-East and South-East public authorities enjoy the highest confidence, while at the opposite end there are the Bucharest and South-West regions (Fig. 1).

Conclusions

Against the backdrop of global mutations and as a result of the human society becoming more static, the issue of sport and physical activity is becoming very important. According to the study on *Sport and physical activity engagement in Romania*, the static character of the population was found, i.e. 76% of the interviewees in the 8 development regions of Romania stated that they did not engage at all or rarely got involved in physical and sports activities, while only 24% regularly got engaged in sports.

The high share of respondents who do not practice sport and physical activity, both at the European Union level and at the level of Romania has its explanations in: lack of time; lack of motivation needed to exercise; the existence of a large number of barriers to sport and physical activity; the lack of opportunities for the space they live in and lack of engagement of local public authorities.

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