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Thematic Article



**Institutional Environment of Students' Sports Activities in Central Europe<sup>12</sup>**

***Klara Kovacs<sup>13</sup>, Andrea Lentene Puskas<sup>14</sup>,  
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**Abstract**

The aim of our study is to scrutinise the differences in sporting habits, sport motivations of students, and the institutional environment of practising intense sports in higher education institutions of Hungary, Slovakia, Ukraine, Romania, and Serbia. In our previous examination, we compared the sporting habits and the socio-cultural factors affecting sports activities of students country by country. We learned that even though students of this region are characterised by similarly low frequency of sports activities (merely once a week), they are under different influences in the individual countries, so the need for an institution-by-institution comparison inevitably arose. We use both quantitative and qualitative methods. In the quantitative part of the research, our questionnaires were answered by 2,017 students from 15 institutions in 2015; in the qualitative part, we conducted eight interviews with institution leaders responsible for sports and physical education teachers. The conclusive finding of our research is that the sporting habits of students in higher education are obviously influenced by the institutional effect. This research has confirmed that an adequate sports infrastructure, a wide range of options, well-organised sport programs, and an institutional sports strategy can increase the amount of students' sports activities.

**Keywords:** sports, higher education, institutional effect

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## **Introduction<sup>18</sup>**

According to the determinative document of health promotion, the Ottawa Charter states that “health is created and lived by people within the settings of their everyday life; where they learn, work, play and love” (WHO, 1986), This statement also emphasises the responsibility of institutions and, in our case, higher education for promoting healthy lifestyle. Even more so, since the time spent in higher education is the last chance for youths to practise any sports activity in an organised manner on a weekly basis (Lentene, 2016; Pfau, 2017).

One of the duties of universities and colleges, as the place of students’ socialisation, is raising awareness of health-consciousness, skill development, and individual and social responsibilities (Tomusk, 2016). We cannot forget about the importance of management that facilitates the welfare of students and workers, a well-operated communications system, an environment that maintains health, and through their research activities, positively influences the health of the wider population. From among all other health-conscious behaviours, the beneficial effect of physical activity on physical and mental well-being is well-known (WHO, 2010; Biro, 2015). Physically active adolescents eat more healthily, smoke less, and are less inclined to become overweight (Piko and Keresztes, 2007). Higher education can contribute to these advantages with its institutional background. With the help of infrastructure of higher education institutions, it can ensure the upkeep of sports communities, which also aid social and emotional development as well as the general and psychological well-being of students (Taliaffero et al., 2010; Kovacs, 2014).

By doing sports, students can acquire skills that are essential if they want to be successful in life (e.g., cooperation, problem-solving, being open to society), and sports activities have an all-over positive impact on students’ efficiency in their studies (Serbu, 1997; Kovacs, 2015a; Biro, 2015). Further integral components of higher education, besides acquired knowledge and infrastructure, are the roles of instructors and peers. Based on previous research data, if a student knows an instructor who practises sports, the student is twice as likely to do so even if only occasionally (Kovacs, 2015).

According to the Act on National Higher Education (2011), the organisation of regular physical activity and practise of sports at universities is indispensable to maintain a healthy lifestyle and quality of life (Lentene, 2016; Kaposvari, 1997; National Sport Strategy, 2007). The supervision of the institutional environment of sports practise is necessary and important for the sake of revealing differences between institutions and learning about right practises and new alternatives.

The aim of our study is to scrutinise the differences in sporting habits, sport motivations of students, and the institutional environment of practising intense sports in higher

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<sup>18</sup> This study was conducted with the support of the Janos Bolyai Research Scholarship.

education institutions of Hungary, Slovakia, Ukraine, Romania, and Serbia. In our previous examination, we compared the sporting habits and the socio-cultural factors affecting sports activities of students country by country. We learned that even though students of this region are characterised by similarly low frequency in doing sport activities (merely once a week), they are under different influences in the individual countries individually, so the need for an institution-by-institution comparison inevitably arose. (Kovacs, 2016). We could see in the examined institutions of these countries, especially in Ukraine, students are rather unsatisfied with the sports options offered by their schools or towns. However, the differences are well-marked even between the schools themselves, so the need for an institution-by-institution comparison inevitably arose. To understand the nature and causes of the disparities in the sports habits of students, we must take into consideration the sports options offered by the individual institutions: infrastructure, programs, and concept.

In this study, we used the database of the 2015 IESA research of the Center for Higher Education Research and Development Hungary (CHERD-H) to compare the sports habits of the students at higher education institutions and the institutional perception of sports options (N=2,017). We asked the students of 15 universities/colleges in five countries, representing the majority, but in this enquiry, we excluded two institutions from the analyses because of the small number of respondents. We attempt to explain the discrepancies between institutions through the sports options they offer, their sports concept, and the differences between these two by interviews and observations. In this way we can understand what options they can offer and how institutions are a part of students' sports socialisation, although we accentuate that the institutional environment is only one aspect of the explanation. For these purposes, we used observations, internet resources, and interviews.

### **The Role of Institutional Effect and Environment on Students' Sports Habits**

In the theoretical background of our research, we synthesise the essence of the institutional effect. We demonstrate what role of institutional impact exists on students' sporting habits and thus their health-consciousness, along with the (higher educational) environment. The institutional effect is divided into three factors by most authors. They are formal characteristics, institutional characteristics, and environmental impacts. As Clark's (1960) concept points out, the sum of the influence of the type of institution, the hidden message of the structure of the syllabus, and the appropriate communication from the instructor's side leaves us with the most important impact of the institution, which can also be regarded as the oldest theory of the institutional effect. Another theory, probably the most comprehensive one, introduces the four dimensions of higher education, which are the following: the composition of the student-instructor society, the static and dynamic features of the organisational structure, the physical environment, and the institutional culture itself (Strange, 2003). According to Pusztai (2016), the institutional effect is made up of an environment created by institutions that are provided

by potential opportunities and the orientation and interaction of students in such directions.

It is important to note that the amount of institutional contribution of certain faculties and institutions may vary in light of the social background of students (Pusztai, 2010). This different social background means that the knowledge and skills that students already have when they enter higher education establishments will not be shaped in the same way and to the same extent in different institutions and their subdivisions. Thus the environmental impulses vary not only from institution to institution but also from faculty to faculty (Pusztai, 2010). The theory of pedagogical resources (Astin, 1984), which primarily focuses on those resources that are supposed to contribute to studying is based on this approach: these resources are material conditions (e.g., infrastructure and laboratories), personal conditions (e.g., well-trained instructors, consultants, and supportive staff) and financial sources (e.g., material aids, supported research, and development programs). Rendering this theory as our foundation, we hypothesise that adequate sport-infrastructure options, programs, and a sporty atmosphere on campuses, as institutional effects, contribute to students' doing sports and to their sports socialisation in the long run. As for youth in higher education, this 'university period' is their last chance to practise sports activities in an organised manner. Therefore, higher education institutions play a significant role in sports orientation, in shaping students' attitudes toward sports and attracting even more of those who have not participated in sports before besides the ones who have (Lentene, 2016; Pfau, 2017). For all this to become a reality, more alternatives for doing sport need to be provided, and new sports disciplines need to be offered, although interferences may arise in the case of most of the institutions due to the lack of developed infrastructure, human resources, and financial difficulties (Pfau, 2017; National Sport Strategy, 2007).

The results of these institutional effects can be deduced from the experiences of the years spent in higher education, but since we focus mostly on and scrutinise full-time education, we can say that the change can be attributed to the formal and informal educational impacts of universities (Pusztai, 2011). For a more relevant deduction of the influence of institutional contributions, we would need an analysis of longitudinal databases with large models from different perspectives, but in this study, we did not have the opportunity to make analysis longitudinally (Pusztai, 2011).

Moreover, the institutional effect can influence several segments of effectiveness among students, such as their attitude toward sports and health. Kovacs et al. examined the effect of higher education on students' health-behaviour and sports habits. Practising intense sports is used as an indicator of efficiency throughout the analyses, and the institutional effect is measured by doing sports with university friends or being a part of a university fan club. The foremost result of the two-variable analyses of the research demonstrates how sports workouts with both university friends and social influences outside university reduce the frequency of sports activity more than expected. A test based on logistic regression indicates, however, that the more important health promotion is to students,

the more sports activity they will engage in—more than could have been expected based on social background (Kovacs et al., 2016). Research conducted in the northern region of the Great Plain also demonstrates that 32% of students prefer spending their free time with their peers (Mosonyi et al., 2013).

Muller (2009), researching the pastime habits of students majoring in sports, assessed that 65.6% of students (172 people) practise sports in their free time, and 59.2% of them (155 people) take part in sports events either as spectators (passively) or as participants (actively). Furthermore, career orientation and the motivation to lead a healthy life is present more dominantly in the case of sports majors since this is one of the pastime activities they practise most often and are interested in even outside of school. In other research, Pfau examined several Hungarian University faculties (BUTE, UD, UP, SU, and SZU) from the aspects of students' sports habits, preferences of location, and the reasons behind the choices (Pfau, 2016). According to her results, sports habits are characterised by two main tendencies: (a) students do not do sports competitively as much during their years at university, but (b) at the same time, they do sports more frequently in their free time. We can also observe a drastic change in pastime habits in the past few decades (Boda et al., 2015). Another interesting and thought-provoking result is that students prefer doing sports off campus rather than on campus. As for the reason of giving up sports, students most often referred to their lack of time (Pfau, 2016), but according to research conducted in the Partium and other universities/colleges outside the Hungarian border, dissatisfaction with sport options offered by institutions also appeared among the explanatory factors (Kovacs 2015a; Kovacs, 2016). In Hungary, it was the University of Debrecen that first applied a sport strategic and conceptual approach in 2005 (Bacs, 2011; Bacs & Bacsne, 2014). With the shaping of a new Sport Concept (2005) corresponding to the principles of the EU, a new, complex development program was launched at the university, which entails continuous changes and structural modifications that conform to legal regulations and opportunities (Bacs, 2011; Lentene, 2016). Developing sports in such way, operating different fields of sports in a complex structure, serves as an example to many of the higher education institutions of the country and highlights opportunities for improvement in the sports life of students in higher education environments, which could popularise regular physical activity among students.

All in all, we can say that the approaches of the institutional effect are different from each other. Researchers of the topic have examined it from various aspects. Doing sport is also influenced by the institutional contribution, and we can differentiate between faculties, too, on the basis of social background (Pusztai, 2010).

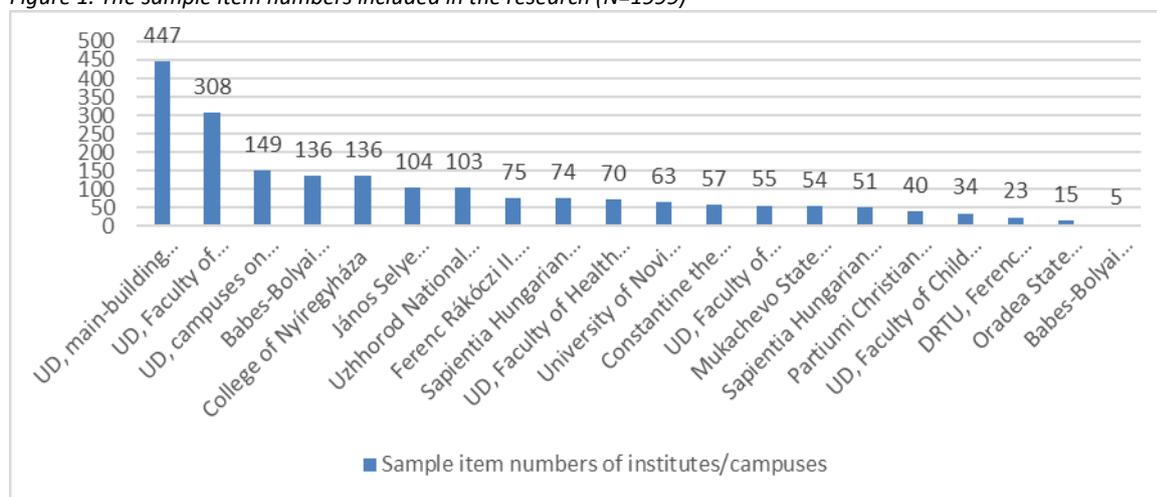
### **Research Questions and Methods**

In the previous stage of our research, we compared the sports habits and the social and demographic factors determining the frequency of doing sports among students country by country. In this study, we compare the students of the institutions on the basis of questions in connection with sports and differences in the sports life and infrastructure

of the institutions. Thus, we connect this to the differences in sports options since the small item numbers do not allow for an assessment of the joint effect of more explanatory factors. For this reason, our explanations are hypothetical.

We applied a combined, both aggregate and stratified, method of sampling: First, we stratified the population faculty by faculty, and then we chose seminar groups at random and asked them to fill out our survey. Accordingly, the item numbers change faculty by faculty in proportion to their total number of students; hence, there is a higher number of items of certain faculties. This is the reason for the prominent number of students from Debrecen, which has around 30,000 students. Such an enormous institution cannot be dealt with uniformly. Even in an infrastructural sense, the university has five campuses in Debrecen alone, and one more in Nyiregyhaza and Hajduboszormeny as well. The main building and the campuses of the faculties of medicine in Debrecen are situated next to each other, so for this reason and because of the low number of people taking part in the research from the faculties of medicine, we examined them one. We also considered the separate outplaced departments of bigger institutions such as the department in Satu Mare of Babeş-Bolyai University and the department in Miercurea Ciuc of Sapientia Hungarian University of Transylvania. These campuses care for their own infrastructural conditions necessary for students to fulfill requirements of PE, sponsor sports programs and events, and perform organisational tasks. This is also why it is crucial to treat them as individual institutions and campuses when it comes to the examination of sports options and institutional environment. The sample item numbers of institutions and campuses are shown in Figure 1 below. We can see how most responders are from the main-building campuses and the Faculty of Economics and Business of the University of Debrecen. The number is above 100 in the case of Babeş-Bolyai University in Cluj-Napoca, the former College of Nyiregyhaza, Janos Selye University in Komarno, and Uzhhorod National University, while the lowest item numbers belong to Ferenc Kolcsey Teacher Training Institute of DRTU, the University of Oradea and the Satu Mare department of Babeş-Bolyai University. The latter two also had to be excluded from the analysis.

Figure 1. The sample item numbers included in the research (N=1999)



Source: IESA 2015

In the research, we tested the frequency of practising sports. Students could choose from six options ranging from “never” to “at least three or more times a week”. The factor analysis of pastime sports activities such as cycling, swimming, ball games (e.g., basketball, handball, volleyball, and football), extreme sports, hiking, excursion, games of groups (e.g., cards and bowling) concentrated into separate factors<sup>19</sup>. We turned the frequency of practising into a scale from 0 to 100, where 0 means “never” and 100 means the highest frequency of practising sports. We were also interested in why doing sports can be considered important, which we regard as a kind of motivational factor. By factor analysis we separate two attitudes: the competitive and the health-promoting attitude (Maximum likelihood method, direct oblimin rotation, explained variance: 48.9%, KMO: .770). The values of the factors were also converted into a scale from 0 to 100, where 0 means “not at all” and 100 means “fully”. We also wanted to know why students do not do sports at all or only very little: They could answer with “yes” or “no” or by stating that they were not satisfied with the sports facilities offered by the university. We compared the students with respect to sports done in an organised and institutional manner. We were curious to see the number of members of sports clubs, organisations, and groups. We used an SPSS 24 program package, one-sided variance analysis, and a Chi-squared test.

We tried to understand the patterns of institutional differences in the quantitative results through qualitative methods. In connection with the sports concept, sports options, and infrastructure of the institutions, we conducted interviews with leaders of the institutions and institutes, PE teachers, who are responsible for sports activities and programs of the institutions. As part of this ongoing research, we conducted eight interviews at the University of Debrecen (with three people), the University of Nyiregyhaza (with one person), Ferenc Kolcsey Teacher Training Institute of the DRTU (with one person), Partium Christian University (with one person), the Târgu Secuiesc and Sfântu Gheorghe departments of Babeş-Bolyai University (with the same person), the Mukachevo State University (with one person). We collected online information about the Hungarian Language Teacher Training Faculty of the University of Novi Sad, Janos Selye University, and Constantine the Philosopher University in Nitra. The interviews were made in the spring of 2017. We recorded them on dictaphones and then made written copies. One of the interviewees did not consent to the audio recording, so answers were given in writing. The length of the interviews ranged between 45 and 90 minutes.<sup>20</sup>

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<sup>19</sup> See the study of Kovacs (2015b) for the factors made up by the pastime habits.

<sup>20</sup> Besides three authors, Szilvia Urbinne Borbely, Katalin Zoller, Emese Berei, and Katalin Pallay also contributed to the making of the interviews. We are grateful for their work.

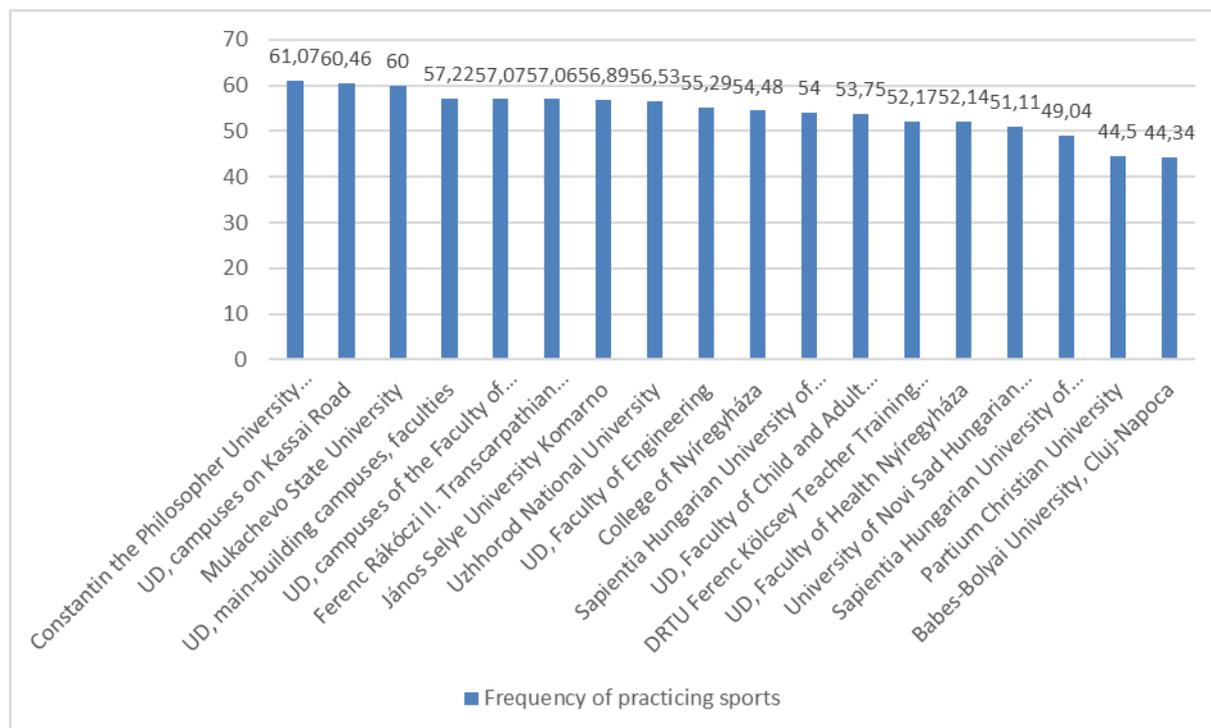
## Results

According to our results 22.3% of students do not do sports at all; the highest proportion (24.2%) practice sports once or twice a month, 22% do sports with weekly regularity, and 18% are active in sports at least three times a week. The most recurrent sports are the classic ones such as running/jogging, football, cycling, working out, and swimming. Sports are considered important in most cases for the sake of health promotion and mental refreshment (80.4% and 75.3% answered with “yes”). The least important factors are victory, competition, and community (12.6%, 13.1%, and 32% answered with “yes”). The main reason for not doing sports is the lack of time (41.7%), but financial limitations (22% do not have enough money for doing sports), and dissatisfaction with the options offered by the institution (17.8%) also have significant influences. Focusing on the organised form of doing sports, we can see that in total, 19.7% of students are members of a sports club or sports association, and 11% of students are members of a fan club. Running, walking, and cycling are also among the most popular pastime activities: 53% of students go running/walking at least once a week, one-third of them go cycling, and one-fifth of students go hiking or on an excursion at least once a month (Kovacs, 2016).

In the following parts of the research, we focus on our main question: What institutional differences can we discover in sporting habits of students in the examined higher education institutions? First, we compared the institutions based on the frequency of doing sports (figure 2.). We found Small but all the more significant differences ( $p=0.002$ ). We can see that the students at Constantine the Philosopher University in Nitra do sports most regularly (61.07 points); three out of the following four places are occupied by campuses of the University of Debrecen, which can serve as a verification for the sport conceptual aspirations of the university in the past year. The focus of them is the reconstruction of diverse university communities and the revivification of university sports successes through offering more sports options, events, and programs. The third place is occupied by the students of the Mukachevo State University with 60 points. Students from Transylvania and the Partium do sports the least frequently in cities like Cluj-Napoca (BBU, 44.34 points), Oradea (PCU, 44.5 points), and Miercurea Ciuc (49.04 points). We have to point out that the PCU does not have its own sports infrastructure; PE lessons are held in the gymnasium of a high school.

*“Unfortunately, we teach PE in a high school in Oradea, which is inconvenient because it is far from the main building of the university. The students have to commute. One class is 45 minutes, and it takes 20 minutes to get there. You can do the math and see how much time we have for physical activity” (PCU, woman).*

Figure 2. Average number of points in the frequency of doing sports, institution by institution (points on scale of 0-100, N=1845)



Source: IESA 2017.

Analysing the average number of points of pastime sports activities, we can see that the first five places are occupied by the institutions of five different countries (Figure 3.). This form of spending free time is the most characteristic for the students of the college in Berehovo (39.99 points). They are followed by the students of the former agricultural centre of the University of Debrecen (33.4 points), the university in Nitra (32.8 points), Uzhhorod National University, and the Târgu Mureş institution of Sapientia University, both of them with the same amount of points (31.81 points). It might be surprising that the first place is taken by Ferenc Rakoczi II. Transcarpathian Hungarian College, which does not have its own sport infrastructure, and uses only a room, another school, or local sports courts for exercising. Behind this is the fact that to complete their requirements in each semester, students have to take part in at least one extracurricular activity, community, or group activities (e.g., sports club, choir, or science club), which also has to be certified by the leading instructor in a grade book. Sports activities are rather popular; students readily chose them even as pastime activities, thus completing their educational requirements. The campus of the Faculty of Economics and Business of the University of Debrecen does have its own sports centre; numerous courts (running, football), a separate hall, and a fitness park are all provided to cater to the needs of students, and expansions are in progress today. This faculty, like the whole of the university, puts on emphasis communal sports programs and games that have a community-building function besides raising awareness to lead a healthy life. Our interviewee shared the following about the duties of the Sports Office of the University of Debrecen. These duties include:

*“...the communication, the marketing part and of course the organisation of pastime sports events, which could be championships or cups. But naturally, starting from our free-admission program, there are many types of entry discounts. We are trying to make sports popular with the students, either in the form of doing sports, as well as in PE lessons or competitive sports, we help a lot of people. We also have our cooperating partners like the handball, football, water polo or ice hockey team of DVSC; we’d like to make sports popular by free or discounted admission...” (The University of Debrecen1, man).*

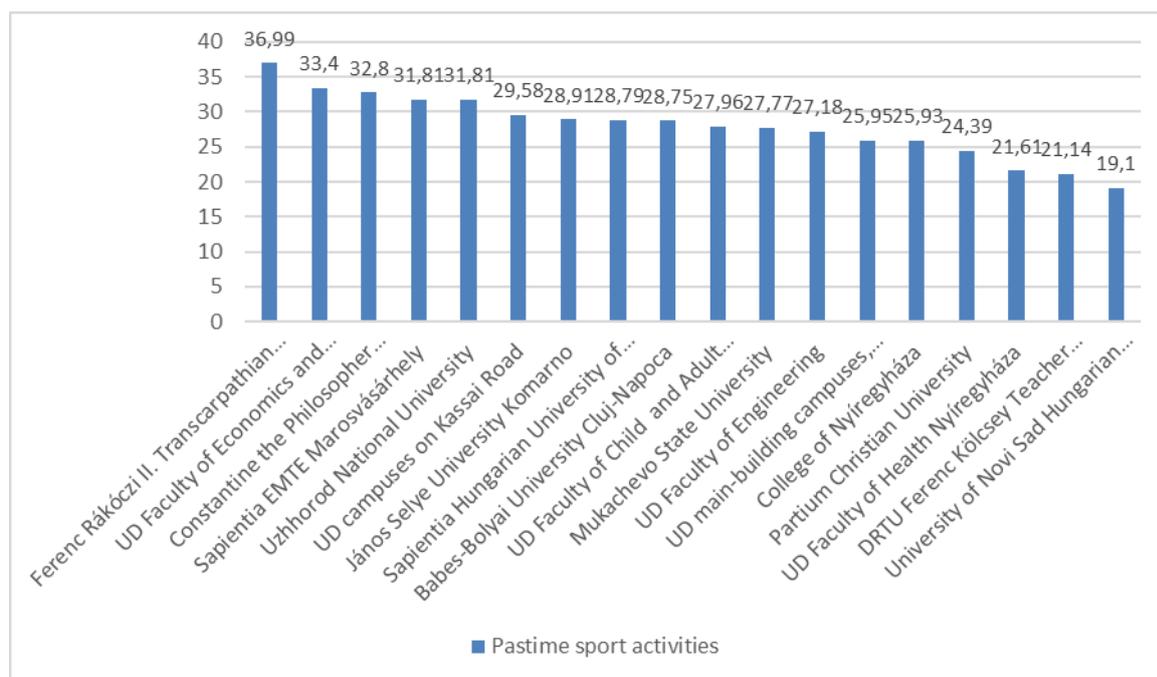
Another interviewee from the University of Debrecen also emphasised the commitment and positive mentality of the leaders toward sports and healthy lifestyles. This view is supported by further plans of the university:

*“...in the upcoming years, if we have the opportunity, we’d like to make people aware of how important sports are. It connects us, so it is the only thing where it doesn’t matter whether you’re a policeman, a postman, a railway worker, or a brain surgeon; everybody’s interested in sports. When old friends from primary school meet, they can’t really talk about their jobs because everybody’s doing something different, but they can talk about sports. So we’d like the University of Debrecen to be like American universities in this respect—we want sports to connect the whole of the university, we want to meet all requests. We want this to give the university an identity, while everybody’s doing their own things” (The University of Debrecen2, man).*

The lowest scores are obtained by institutions that do not have their own sports infrastructure. The obligatory PE lessons have to be held in the gyms and halls of other institutions, or in small rooms for exercising especially for this purpose: DRTU Ferenc Kolcsey Teacher Training Institute (21.47 points), UD Faculty of Health (21.61 points), PCU (21.61 points). The students of the faculty in Subotica have the lowest number of points (19.1 points). From the results of our previous research (Kovacs, 2016), we could already see that neither socio-cultural nor demographic factors play a role in the frequency of practising sports in the examined higher education institutions by countries, the infrastructural lack of sports options interferes more. An interviewee said the following about the sport infrastructural options of the University of Novi Sad:

*“The HLTF does not have any form of sports infrastructure; there’s no gym, not even a room appropriate for doing any kind of physical activity in the building of the faculty. Although this should change by December 2018, since from the 1.5 million euros we got from the Hungarian state specifically for renovation, we will be able to afford a gym and a diagnostic laboratory. Currently, we are using the gym of Dezsó Kosztolányi Talent Managing High School, that is where we have our practical lessons, which is about a 10-minute walk away from the centre of the city and so, from the building too. It’s not the most ideal solution, but we are glad that they could make some room for us there at least” (The University of Novi Sad Hungarian Language Teacher Training Faculty, Subotica, man).*

Figure 3. Average score of pastime sports activities, institution by institution (points on a scale of 0-100, N=1948)



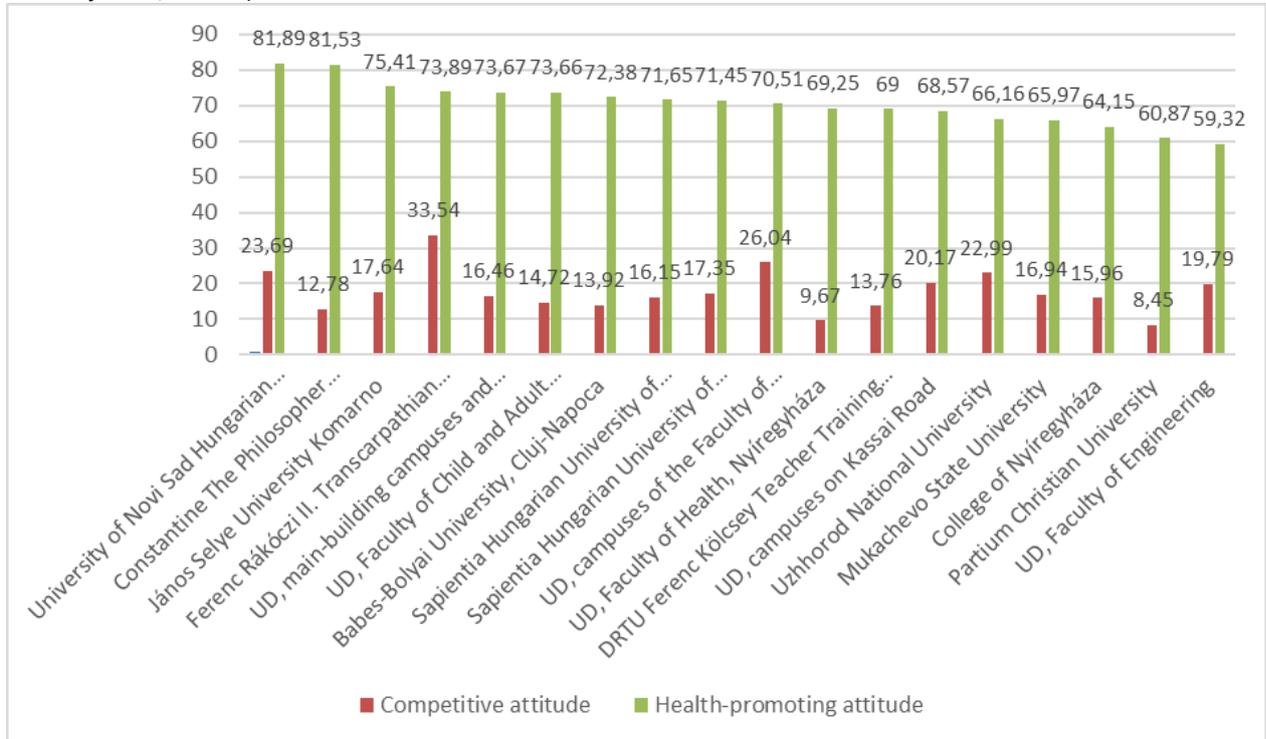
Source: IESA 2015

Competing does not seem to be a motivational aspect among the responders, and it is significantly unimportant among the students of the PCU (8.45), the UD FH (9.67) and the university in Nitra (12.78). (Figure 4.). In this latter case, we can see that the students of the university in Nitra do sports not only the most regularly but also aim towards recreation and an active passing of their free time. Their main motivation is health-promotion—they are second place in terms of health-promoting attitude (81.83). They are followed by the students of the other Slovakian, Janos Selye University (75.41 points). In our earlier analyses, we saw that Slovakian responders are motivated only by health-promotion, and no other social-demographic factor influences how often a student does sports (Kovacs 2016). This may be the result of Slovakian sports politics putting the main emphasis on recreation, thus trying to utilise their geographic and touristic possibilities. The sports habits of students are highly influenced by the examples they see at home, which may become a natural part of their life by this time. In Slovakia, families consider spending free time in a health-conscious way essential from a very early age. We can often see families with small children skiing and hiking in Slovakia. Pastime sports are in the foreground of public education as well. Students learn skiing and kayaking in class. Janos Selye University aims towards utilizing these advantages and organises four camps annually for its students (e.g., tourism and skiing).

In accordance with our previous results (Figure 1.), practising sports competitively is also important to students of the college in Berehove and those of the campuses of the Faculty of Economics and Business of the UD (33.64 and 26.04 points) (Figure 4.). The faculty in Subotica has the third highest score (23.69), which indicates that those who do sports either do so competitively and do not regard sports as a leisure activity, or they view health promotion as a motivational factor that plays an essential role in their lives (81.89

points). The students of the PCU do not seem to be very interested in competition or health promotion (60.87), but the lowest score belongs to the students of the Faculty of Engineering of the UD (59.32 points). The average number of points is presented in Figure 4 below.

Figure 4. Average score of the competitive and health-promoting attitude toward sports, insitution by institution (points on a scale of 0-100, N=1979)



Source IESA 2015

In this section, we look at what differences there are between the students of the institution with respect to their not doing sports at all or less than should do (Table 1.). We can find significant differences in the case of four variants. 60%—above average—of the students of the main-building campuses of the UD, which also includes the faculties of medicine and the DRTU Ferenc Kolcsey Teacher Training Institute, with its low number of items, seem to be too busy to do sports regularly. The latter and the students of institutions that have no sports-infrastructure of their own, such as the Faculty of Health of the University of Debrecen or Partium Christian University, have expressed above-average dissatisfaction with the sports option offered by their universities, and this is why they do not do (enough) sports. This can also justify why the students of the BBU reached the lowest score in their frequency of practising sports, as 29.4% of them said “yes” to this question. The case of the university in Nitra is quite unique: Its students are the ones who do sports the most regularly; at the same time, 43.9% of them say that the institution does not offer an adequate number of sports options. It implies that they practise sports individually as a form of pastime activities outside the university, and, as we have already seen, for the sake of recreation and health promotion. The opinion of our interviewee from Nitra:

*“As far as sport infrastructure is concerned, it is not too satisfying. I would give a moderate rating to our institution in terms of facilities and equipment. Unfortunately, our university cannot boast with organization of sports and leisure programs. Students can spend their leisure activities by doing sports offered by the colleagues (in their free time) and by using the opportunities in the city. The city's sports facilities (fitness clubs, bicycle routes ...) are relatively satisfactory, and it is proved by the fact that the City of Nitra got the award of "Sporting City of Europe" in 2018” (Constantine the Philosopher University, Nitra, man).*

The situation is similar at Mukachevo State University where the students are in the third place in the frequency of practising sports, although one-third of them are dissatisfied with the sports options offered. The institution has its own recently renovated and well-equipped sports hall which is used together with the College of Pedagogy. Sports groups are available, and the most talented students of each type of sport take part in competition between colleges/universities. This is why we assume that what students are actually dissatisfied with are the types of sports they can choose from and the organisation. According to the interview we made here, the issue becomes multi-dimensional and reveals that sports options cannot be guaranteed any longer because of reduced financial resources:

*“Our institution used to rent several sports courts and gyms in Mukachevo. Due to the amount of the rental fees, that is no longer a possibility. Students use the free-for-all sports courts near the university.”*

One of the employees of the university paints an even more obscure picture of the future:

*“The current financial state of Ukraine does not facilitate the support of PE education at the university. This is one of the main restraints when it comes to development. Our institution is one of the few that still keeps up the obligatory PE education in every faculty, but the ministry is making plans which do not include that, so it is quite likely that PE will be left out of the curriculum. All in all, what we can say is that our faculty will only stay alive until physical education is obligatory” (Mukachevo State University, man).*

Few of the students on the three campuses in Debrecen (the main-building, Kassai Road, and the Faculty of Economics and Business) say that there are not enough options for doing sports at the university. Only 8.1% of students are dissatisfied with the options in the city, representing the success of the endeavors of the university, as well as of the city—mostly because of the new Sport Concept—to motivate more and more of the young students to practise sports. The college in Berehove is the one with the highest proportion of dissatisfaction with sports options in the city (26.7%). Berehove barely has any traditions relating to mass sports, and competitive sports have only brought a few successes (e.g., football, handball, and wrestling), but their institutions have deteriorated since the end of communism. Football is the only one rebirthing—the pitches of the stadium have recently been renovated with the help of sponsors, although apart from the teams, everyone else has to pay rental fees. There is only one gym for working out, and the only pool has thermal water, so it is visited by people from all around the country and

from abroad in hopes of recovery. Because of all the tourists, swimming is difficult, and hygiene conditions are not of the best quality.

Supporting a previous test, we have once again learned that the outstandingly bad health conditions of the students of the college in Berehove and Mukachevo State University do not allow them to do sports (regularly) (25.3 and 18.5%). In the study of Kereszteny and Greba (2016), we see that in Ukraine in the past years more and more students have been completely or to some extent absolved from doing PE. The reasons are some health issues due to the fact that several students complained of feeling unwell, and to the 17 deaths on PE lessons in the last eight years. Only 30% of schoolchildren can practise sports without any limitation, which is concerning since it is obvious that this number only grows in higher education. This situation is made even worse by the fact that these children and adolescents are not bale to take part in PE because of their health conditions, so they cannot practise sports at all, and they do not have opportunity for physiotherapy. The Hungarian Language Teacher Training Faculty of Subotica must be happy to know that no more than 1.6% of the students claim they have health problems—a lot lower percentage than could be expected based on an accidental arrangement. Table 1 below demonstrates the proportion of “yes” answers given to the questions described above.

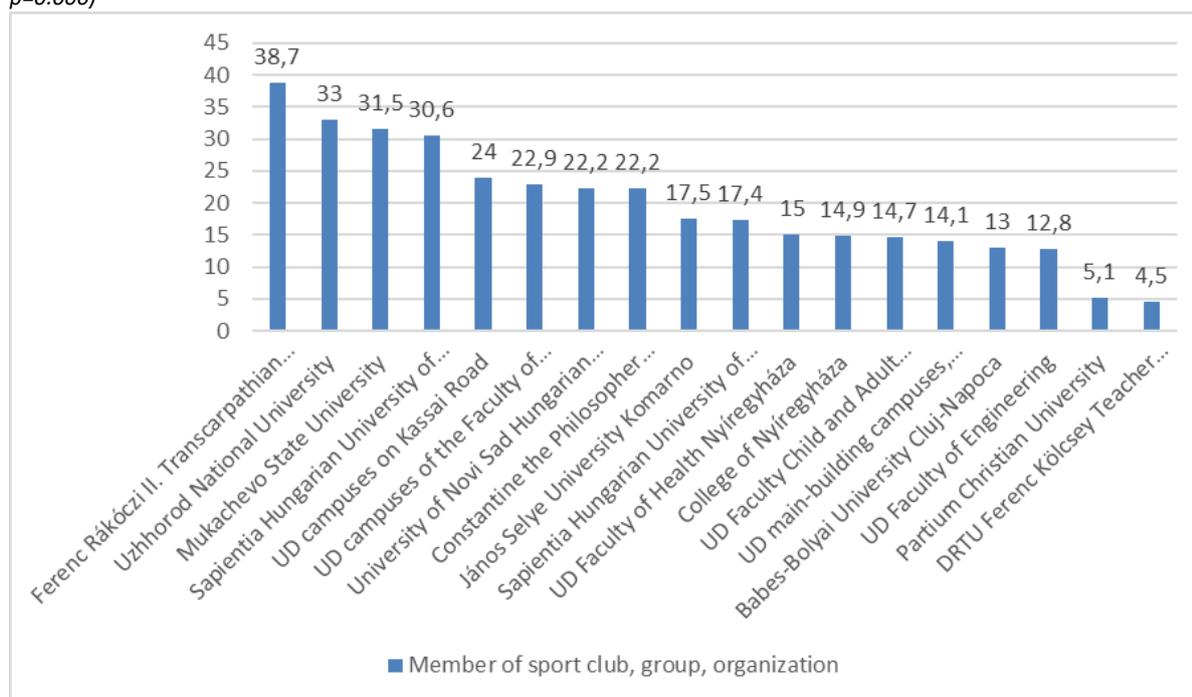
Table 1. Proportion of Those Answering “Yes” When Asked About the Reasons of No or Insufficient Practise of Sports, Institute by Institute (Percentages, N=1979: IESA 2015)

	I don't have time for it, I'm too busy	The type of sport I'm interested in is not available at my institution	The type of sport I'm interested in is not available where I live	My health condition doesn't allow me to do sports
UD, main-building campuses and faculties	<b>49</b>	<b>10,3</b>	<b>8,1</b>	8,9
UD, campuses of the Faculty of Economics and Business	<b>31,2</b>	<b>11,7</b>	12,3	10,7
UD, campuses on Kassai Road	34,2	<b>6</b>	7,4	10,1
UD, Faculty of Engineering	40	9,1	12,7	14,5
UD, Faculty of Health, Nyiregyhaza	41,4	<u>27,1</u>	12,9	7,1
UD, Faculty of Child and Adult Education, Hajduboszormeny	26,5	23,5	17,6	2,9
DRTU Ferenc Kolcsey Teacher Training Institute	<u>69,6</u>	<u>60,9</u>	4,3	4,3
College of Nyiregyhaza	41,2	16,9	12,5	6,6
Ferenc Rakoczi II. Transcarpathian Hungarian Institute	48	25,3	<u>26,7</u>	<u>25,3</u>
Mukachevo State University	51,9	<u>29,6</u>	18,5	<u>18,5</u>
Uzhhorod National University	32	21,4	13,6	9,7
Babeş-Bolyai University, Cluj-Napoca	48,6	<u>29,4</u>	11	5,1
Sapientia Hungarian University of Transylvania, Târgu Mureş	31,4	23,5	9,8	5,9
Sapientia Hungarian University of Transylvania, Miercurea Ciuc	40,5	21,6	6,8	6,8
Partium Christian University	55	<u>30</u>	5	5
Constantine The Philosopher University in Nitra	40,4	<u>43,9</u>	12,3	7
Janos Selye University, Komarno	45,2	17,3	17,3	8,7
University of Novi Sad Hungarian Language Teacher Training Faculty, Subotica	30,2	14,3	15,9	<b>1,6</b>
Sig.	,000	,000	,002	,000

\*The underlined numbers indicate that the result exceeded the expectation; those in bold indicate that the result was below the expectations.

Most of the students—precisely one-third of them—are members of a sports club, group, or organisation in the three Ukrainian and the Târgu Mureş faculty of the Sapientia Hungarian University of Transylvania (Figure 5). In the case of Berehove college, we have already mentioned that the students’ obligation to take part in extracurricular activities or groups heavily influences this proportion. Although it is important to note that in institutions for Hungarians as a minority, such as that of Berehove and the Sapientia, these activities also carry community-forging/community-building as well as identity-preserving meanings. The proportions of the Kassai Road campuses and those of the Faculty of Economics and Business of the UD are above 20%. The lowest proportions, not surprisingly, belong to the institutions where the frequency of doing sports as just as low (DRTU: 4.5%; PCU: 5.1%; BBU: 13%) or where health-consciousness is the least important to the students (UD FE: 12.8%) (Figure 5). The students of the main-building campuses of the UD reached a score that was lower than expected, which, however, corresponds to their lack of time for doing sports, and even if they do practice sports, few of them opt for an organised type of sport.

Figure 5. Proportion of members of sport clubs, groups, organisation, institution by institution (percentage, N=1824,  $p=0.000$ )



Source: IESA 2015.

## Discussion

In our research, we scrutinised the institutional effect influencing students’ sports habits in the northern region of the Hungarian Great Plain and outside Hungary’s borders in Slovakian, Ukrainian, Romanian, and Serbian universities where Hungarians are either a minority or majority. The institutional environment does in fact have an impact on the frequency with which students practise sports in the institutions that were part of the research, lack of infrastructure proved to be a restraint (especially in the case of Partium Christian University, DRTU Ferenc Kőlcsey Teacher Training Institute, and the University

of Novi Sad Hungarian Language Teacher Training Faculty). Existence of a sporty institutional environment seemed to be a positive influence especially in the Debrecen campuses of the UD, Janos Selye University. In this respect, the sports strategy of the University of Debrecen is remarkable in the sense that it, without a doubt, increases the frequency of students doing sports.

Making sports club memberships as a part of the curriculum requirements is one of the solutions that drives students to spend their free time practising sports (which is the case at Ferenc Rakoczi II. Transcarpathian Hungarian Institute). The other one is the wide range of sports programs.

Health promotion and health-consciousness are definitely the background motivations behind students sports activities. This result is given a special meaning in light of the above-described cases of students who are not able to do physical activities many times due to health issues, principally the students of the Transcarpathian institutions in Berehove and Mukachevo. The reason for not doing sports at all or just occasionally is most definitely students' lack of time. This could be promoted by a local sports infrastructure or by a wider range of options and better organization in the absence of infrastructure.

The conclusive finding of our research is that the institutional effect obviously influences sports habits of students in higher education. This research has confirmed that an adequate sports infrastructure, a wide range of options, well-organised sport programs, and an institutional sports strategy can increase the amount of students' sports activities. As of late, many studies have aimed towards the exposure of the added value of institutions. During the course of these studies, the enumeration of previous and parallel effects seems to cause the most difficulties (Pusztai, 2016). In this research, we did not have the chance to address socio-cultural issues that could impact students' sports habits such as financial situation, gender, where they come from, parents, friends, siblings, whether their partners do sports or not, or necessary elements of social, environmental, individual lifestyles, and communities (Keresztes, 2015; Perenyi, 2011, 2013; Kozma et al., 2014; Gal, 2014; Doczi, 2014; Kovacs, 2015; Kovacs 2016). However we have to emphasise that when looking for the beneficial trajectories of the institutional effect, it is worth tending toward their inherent meanings of impact from the structural perspective of the undoubtedly significant intergenerational connections. According to some assumptions, apart from the structural features of the relational resources of a campus, the nature of communal activities is just as essential. In terms of the subjects of communal activities, we can mention two factors relations built on educational-intellectual activities, and those built on private life or pastime activities (Pusztai 2016). Practising sports in a community has a detectable significance in students' studies, too. According to the results of our research, in institutions where Hungarians are a minority, especially in the college in Berehove and Sapientia University in Târgu Mureş, sports also have a community-forging/building and identity-preserving role in the first place.

Our study is worthy of further reflections in many aspects: Are the correlations true regardless of regional or gender differences, or what does the social “capital” of parental care mean during the years of higher education? Seemingly, these do not have any connection to the institutional effect, though if we think about it, they do (Pusztai, 2016). Literary sources on the topic talk about a new model of the connection between parents and higher education (Wartman-Savage, 2008). Analyses on the effects of institutional programs in connection with parents regard them not only as donors but also as active partners in the higher educational development of students and a successful start to their lives after the university. Our study points out the power of the positive example of spending free time together in Slovakian families.

Another aspect worthy of research within the analysis of the institutional effect could be whether students do better in their studies, after outsourcing social statuses, if they have a type of relationship with their instructors that is at least worth mentioning. The influence of instructors is usually not constant; with the growth in diversity of students, differences noticed with respect to students’ attitudes towards their instructors, that is, who dares or wants to have conversations with the instructors. Students who do not frequent campuses cannot profit from these resources whatsoever (Pusztai, 2011). Our interviewees often mentioned that their instructors at the institutions were keen practitioners of physical activities. So how much influence does this fact have on students to reshape their sports habits?

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