

*Thematic article*

# Investigation of Sporting Habits and the Attitudes Related to Physical Education during the COVID-19 Pandemic

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## Abstract

Several domestic and international studies confirm the benefits of regular sports activities regarding healthy attitudes (Földesiné, 2008; Shephard et al., 2013). On the one hand, our research aimed to survey sporting habits (with a special focus on the impacts of the Coronavirus epidemic on physical activities). On the other hand, we investigated the participants' attitudes regarding daily physical education classes. In the course of our research, we conducted a representative data recording among Hungarian citizens 18 years old or above (n=1015) regarding gender, age, education level, and type of habitation. The vast majority (71%) of the surveyed population is not involved in any kind of sports activities (which corresponds with the outcomes of previous investigations), however, in this aspect, the impacts of COVID-19 are marginal. Sports activities are most typical to males with a higher level of education, who reside in larger cities. The most popular sports activities are running/jogging (36.3%), cycling (16.6%), and soccer (16.2%). The opinions regarding daily physical education classes are rather positive: the majority consider the increased number of PE classes a useful development. These opinions are held mainly by those who either are active in sports or who live in Budapest. A quintessential part of life in the COVID-19 pandemic, healthier lifestyles could certainly benefit from quality physical and sports education. If this quality is further improved, it may also dispel some of the negative ideas about sporting habits.

*Keywords:* sporting habits; daily physical education; COVID-19

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## Introduction

Appropriate quantity and quality of physical activities are essential (Csányi et al., 2015), since even the earliest cultures in history recognized the beneficial impacts of regular physical activities on physical and emotional functions. Sport, as a type of physical activity, is an important instrument for finding balance, harmony, and temperance, while developing and protecting good health (Pikó et al., 2007; Rétsági et al., 2011). Regular sports activities also contribute to staying healthier for longer (Héjjas, 2006). In competitive situations, it helps a person learn, how to deal with success and failure. Also, it is useful in developing conflict tolerance and management skills, and problem-solving skills (Rétsági, 2015; Fintor et al., 2014). By being involved in sports, we learn to set goals and look toward the future with ambition (Kovács, 2021). In this paper, we sought to examine the effects of sports on those striving for their future – university students. In a large sample (n=4189) survey by Nagy-Kovács (2014), the impacts of sports activities on the value system of university students were investigated. The conclusion was that regular exercises have a positive impact on confidence regarding future plans. In addition, it was found that participating in sports more frequently also enhances the significance of intellectual values, which also facilitates self-realization.

However, our native researchers find negative indicators regarding the sporting habits of the domestic population going back decades into the past (Gál, 2008). In general, we can assert that Hungarian people do not

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get involved much in sports (more than 60% of the population have never done any sports); people between 15 and 29 did not find regular exercises popular or attractive (Földesiné, 2008; Perényi, 2014; Magyar Ifjúság, 2016), and sports among older age groups is even less popular (Földesiné, 2008; Balogh, 2015; Vicianá et.al, 2014). According to the report issued by Magyar Fiatalok (2020), the frequency of sports activities further decreased since 2016; however, this decrease is due to the pandemic, and not due to the lack of willingness or motivation among young people.

In international aspects, this image of our country is especially disheartening, since statistics present increasingly positive sporting tendencies in the older democratic member states of the European Union. In Austria, Ireland, the Netherlands, France, Belgium, and the United Kingdom we see that more than 60% of the population participate in sports activities, while this rate is 80% in Denmark, and 90% in Finland. On top of that, these positive tendencies are also found in such Central-European countries as Slovenia (72%), the Czech Republic (59.1%), and Slovakia (57.6%), that went through similar political and social changes as Hungary (Perényi, 2011).

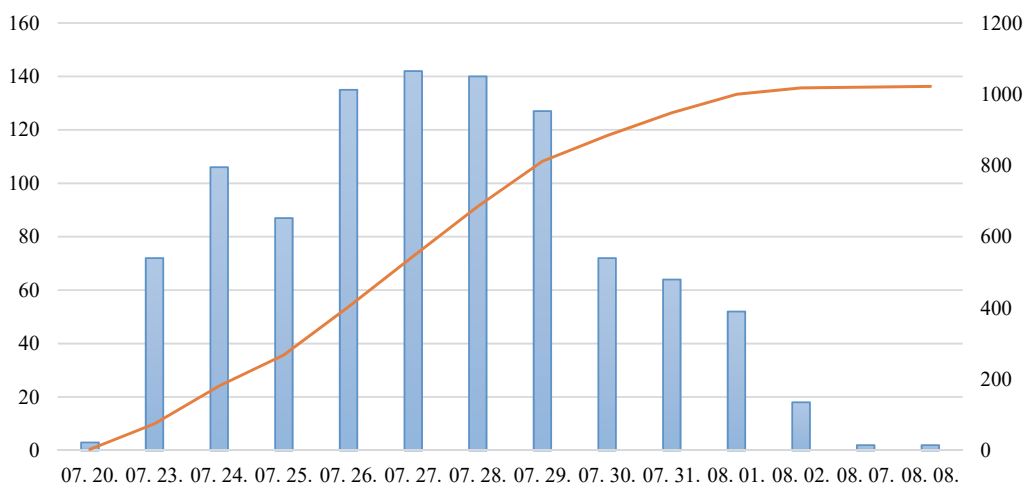
Regarding the scenes of socialisation, besides family, institutionalized education can greatly help reach health development goals through sports (Bognár et.al, 2005), since participation in institutionalized education is compulsory for every Hungarian minor. The introduction of daily physical education classes was a significant intervention in Hungarian education policy, which was welcomed by the students (Fintor, 2019); however, following the introduction of these classes, the state of infrastructure was questionable (Vass et.al, 2015; Trencsényi, 2016). According to Kovács (2021), It is therefore also worth investigating the importance of infrastructure in regular sports activities. In our present survey – which is based on our previous dissertation – we investigate the attitudes of the adult population concerning daily physical education classes, and their thoughts on infrastructural conditions at schools in close proximity to their residence in 2021.

### Methodology of the Research

The analysis is based on a national representative survey conducted via telephone consultation by Tárki Social Research Institute, between 20<sup>th</sup> July and 8<sup>th</sup> August 2021 (Figure 1.). The sample is valid for Hungarians 18 years old and older. 1015 people were analysed in this sample. The sample was created as a result of multi-stage, stratified probabilistic sampling, according to which, the probability of being included in the sample is known – and derivate from zero – concerning each member of the Hungarian population above 18 years of age. Hereinafter we present our outcomes in a weighted form. Weighting is a frequently applied correctional method for data, which facilitates the clarification of the received outcomes along certain dimensions. In this case, we used 4 dimensions, namely: gender, age, habitation type, and education level. By the use of these, the received outcomes can be generalized in these groups spanning the whole of the Hungarian populace.

Further on, we use our outcomes in a weighted form, with regard to the complete sample. The sample consists of 41% male and 59% female participants. Regarding the division of age groups, 51.4% were above 50 years, 30% between 35 and 49 years, and 18.5% belong to the age group between 18 and 34 years.

**Figure 1.** Distribution of data recording over time



## Research Questions

One of the main objectives of our research is to assess the sporting habits of Hungarian people. Within this assessment, we are eager to uncover their most popular sports. We also examine the impacts of the Coronavirus pandemic on participants' sporting habits. On the other hand, we investigate the frequency of sports activities according to gender, age group, education level, and habitation type. free-time (In one of the sub-chapters, we also assess this, since sport can also be considered a kind of free-time activity)

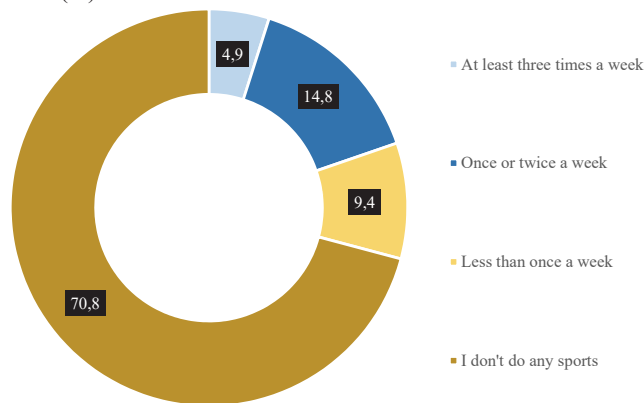
Another objective of our research is to determine the peoples' views regarding physical education in schools, and to assess infrastructural conditions among the participants.

## Investigation of Sporting Habits

At first, we present the results of our primary sporting habits objective that we investigated.

Regular exercises are defined as physical activity with moderate or high intensity, with the duration of at least 60 minutes. According to our results, 4.9 percent of the surveyed participants are involved in sports at least three times a week, 14.8 percent of them do it once or twice a week, 10 percent of them do sports less than once a week, and 70.8 percent (the vast majority) of the population are not participating at all. (Figure 2.).

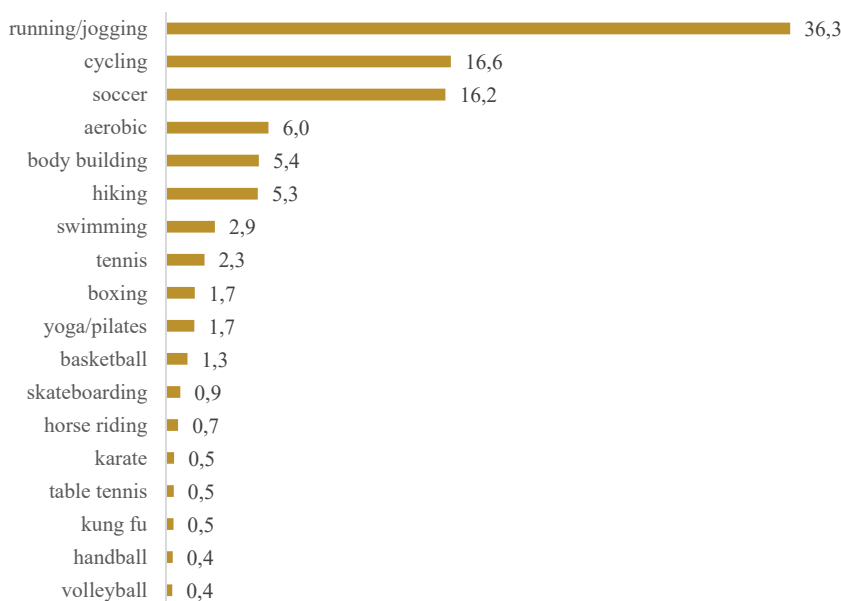
**Figure 2.** How regularly are you involved in sports activities? sports activities refers to at least 60 minutes of moderate to high intensity physical activities. (%)



*Remark:* On the basis of the complete (n=1015) sample.

Among those, who are somewhat involved in sports, running/jogging has the highest popularity, being practiced by 36.3 percent of respondents (Figure 3.). Cycling (16.6 percent) and soccer (16.2 percent) are also popular.

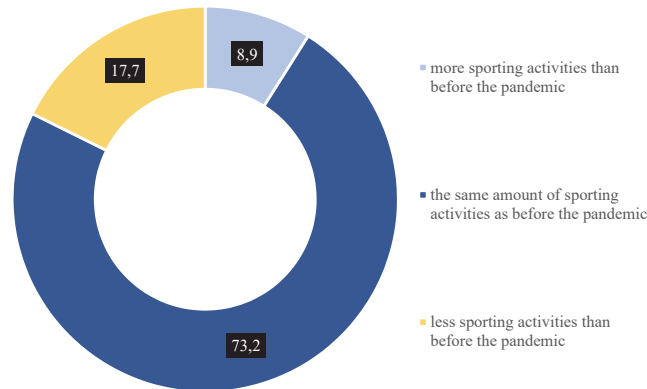
**Figure 3.** What kind of sports activity do you practice most frequently? (%)



*Remark:* On the basis of the sample (n=731) of those who are involved in sporting activities.

According to the data, 73.2 percent of respondents are involved in the same amount of sporting activities as before; 17.7 percent do fewer sports, and only 8.9 percent do more sporting activities than they did prior the pandemic (Figure 4.). It can thus be concluded that the impacts of COVID-19 pandemic on the intensity of sporting habits are not significant.

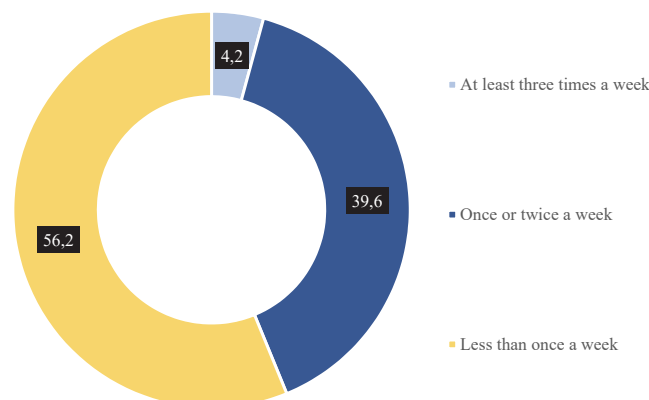
**Figure 4.** Sports activities at present, in comparison with sporting habits before the Coronavirus pandemic (March 2020)(%)



*Remark:* On the basis of the sporting sample (n=296).

Upon the investigation of those who reduced their sports activities because of the pandemic, we find that, due to COVID-19, only the intensity of sporting activities has decreased. None of the respondents in the sample stopped doing sports activities all together (Figure 5.). 4.2 percent of those less involved in sports than before the pandemic still do exercises at least three times a week; 39.6 percent do it once or twice a week, and 56.2 percent of them do it less than once a week.

**Figure 5.** How many times do you practice sports activities per week? One occasion of sports equals at least 60 minutes of moderate-intensity exercises. (%) – among those, who were more active in sports before the pandemic



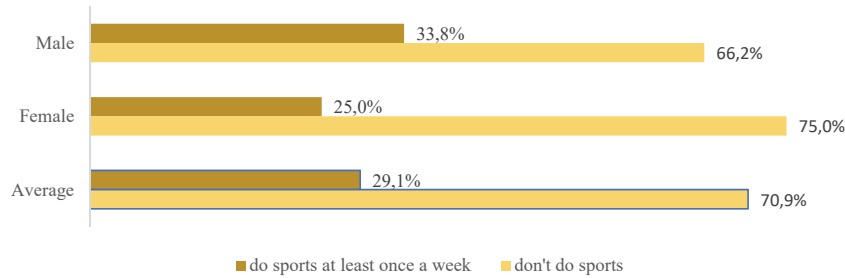
*Remark:* Based on the sample (n=52) who were more active in sports before the pandemic.

### Characterization of sporting and non-sporting groups

In the following section, we characterize the sporting and non-sporting groups of the Hungarian population. These groups were created according to the responses to questions about the frequency of sporting activities. Those who at least “seldom” do exercises were classified together with those involved in sports (further on: “sporting” population), in order to separate them from those not involved in sports activities at all (further on: “non-sporting” population). According to this, the sporting population constitutes 29.1 percent of the total population, while non-sporting people add up to 70.9 percent. According to division by gender (Figure 6.), we can see that although the difference is significant, there is only a small amount of deviation. Among the male

population, the rate of those who do sports is a little bit higher than the average 29 percent (33.8 percent), while among females this rate is a little bit lower (25 percent).

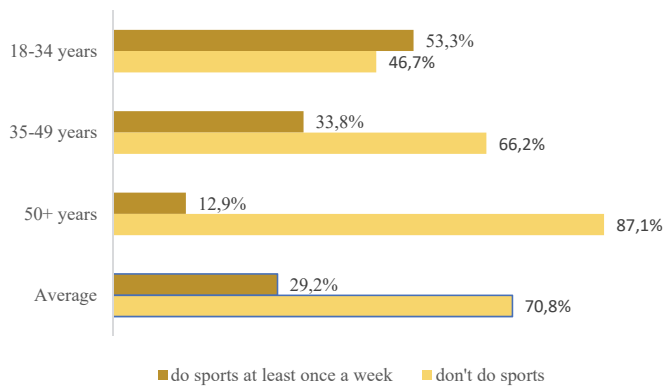
**Figure 6.** Frequency of sports activities according to the respondents' gender



*Remark:* On the basis of the complete (n=1015) sample. Chi-square test presents significant correlation (p=0.002).

Upon investigating the gender of the respondents, we can observe significant differences: while more than half of the youngest (53.3 percent), a 18-34 year-old group is involved in sports, this rate among the 35-49 year-old age group is only 33.8 percent, and in the age group above 50 years, it is only 12.9 percent (Figure 7.).

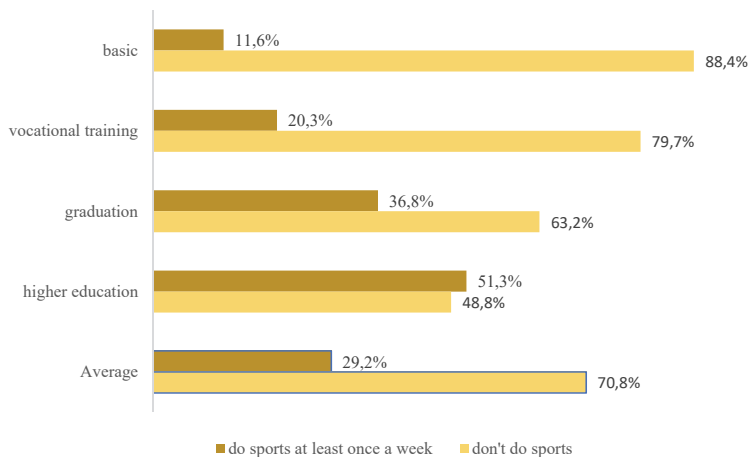
**Figure 7.** Frequency of sports activities according to the respondents' age



*Remark:* On the basis of the complete (n=1015) sample. Chi-square test presents significant correlation (p=0.000).

The level of education is at least as significant as age itself (Figure 8.). Among those with the highest educational degree, the rate of sporting population is almost twice as high as the domestic average (51 percent vs. the average 29 percent). At lower educational levels, this rate gradually and then drastically decreases; thus those who have a professional degree are below average (20.3 percent), while those with only basic training, this rate is about one third of the domestic average (11.6 percent vs. the average 29.2 percent).

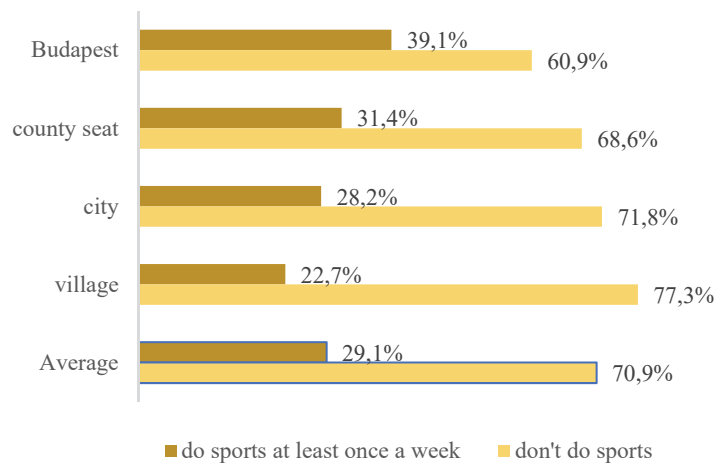
**Figure 8.** Frequency of sports activities according to the respondents' level of education



*Remark:* On the basis of the complete (n=1015) sample. Chi-square test presents significant correlation (p=0.000).

We can also observe significant differences according to the type of residence (Figure 9.). In comparison with the domestic average, the largest number of those doing sports rises over domestic average exclusively in Budapest (39.1 percent), and although at the county seats this rate is also a little bit higher than average, the rest of the settlements' numbers hover around average.

**Figure 9.** Frequency of sports activities according to the respondents' type of habitation



*Remark:* On the basis of the complete (n=1015) sample. Chi-square test presents significant correlation (p=0.001).

As the data above implies, the most frequently practiced sport is running/jogging, which along with being a sporting activity can be free-time considered a hobby. This makes investigating free-time activities important to understanding peoples' health and lifestyle habits. Due to size limitations, however, we are going to only briefly deal with the subject. The focus will be how much time respondents devote to their chosen activities in their free time on weekdays and weekends (less than 1 hour, 1-2 hours, more than 3 hours), and exactly what activities they participate in free-time (surfing on the internet, watching TV, listening to the radio and reading).

### Free-time activities

Regarding weekdays, we examine how people spend their free time surfing the internet, watching TV, listening to the radio and reading. Among these, the most popular free-time activity is definitely watching TV: one third (33 percent) of the respondents watch TV for 1 or 2 hours on an average weekday; beyond that, almost half of the population (46 percent) watches TV for more than 3 hours daily. It is followed by the internet; one fifth (20 percent) of people are online for 1-2 hours daily, while one third (32 percent) of them are online for more than 3 hours on an average weekday. In comparison with these, listening to the radio is less popular, however the number of people who listen to the radio on weekdays is still much higher than of those who read: about 17 percent of the population spends at least 1 hour reading on a daily basis.

The rankings concerning the spending of free time on weekends only deviates from this in its intensity. At weekends, almost everyone spends at least 1 hour watching TV, while 31 percent listen to the radio for at least 1 hour, and 24 percent spend at least 1 hour reading.

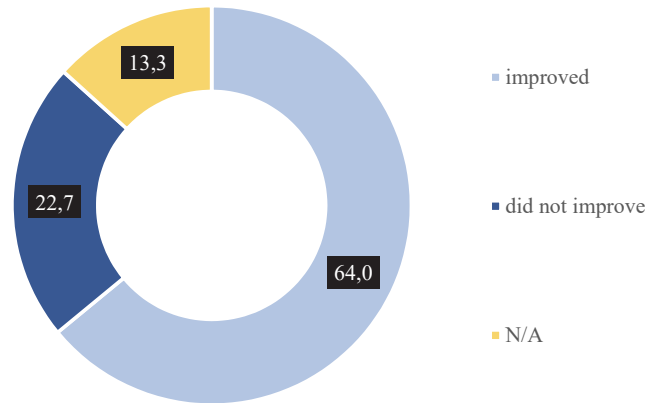
Altogether we can conclude that sport, as a free-time activity is practiced by even less people and with less frequency than reading, since the rate of those, who do not read at all is about 46-48 percent both on weekdays and weekends, while the rate of those not active in sports is 71 percent.

### Analysis of the Results of Daily Physical Education Classes

The following section contains the results of study (a detailed attitude investigation, and a brief infrastructure assessment) of our second main objective: daily physical education classes.

Within the research, an individual questionnaire block is dedicated to the investigation of public opinion of physical education in schools. Out of the entire population, a little more than one tenth (13.3 percent) of respondents could not form an opinion about this subject, however, another two thirds (64 percent) feel that the increase in the number of physical education classes improved students' health. Only 22.7 percent thought that there was no improvement (Figure 10.).

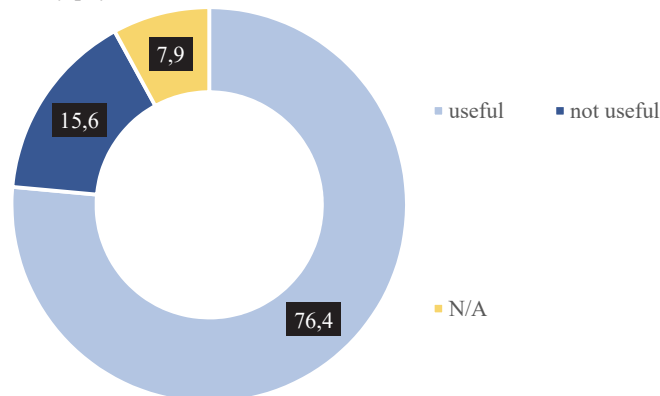
**Figure 10.** Do you think that increasing the number of physical education classes improved the students' physical conditions?



Remark: On the basis of the complete (n=1015) sample.

Concerning the usefulness of daily physical education, the number of people able to form an opinion was only significantly higher than the previous statistics (and only 7.9 percent opted to ignore the question). The vast majority of the population (76.4 percent) happens to be of the opinion that daily physical education classes are useful; only 15.6 percent of respondents think otherwise (Figure 11.).

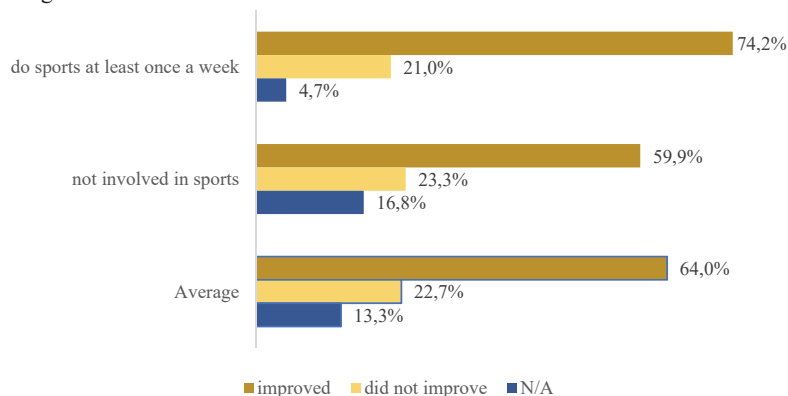
**Figure 11.** Do you consider daily physical education in schools useful?



Remark: On the basis of the complete (n=1015) sample.

Not surprisingly, upon closer investigation of sporting habits, we find significant differences: among those, who are at least seldom involved in sports activities, the rate of those who think that the more physical education classes in school improves students' physical state is higher than average (74.2 percent), while that number is 59.9 percent among those who do not do sports. (Figure 12.)

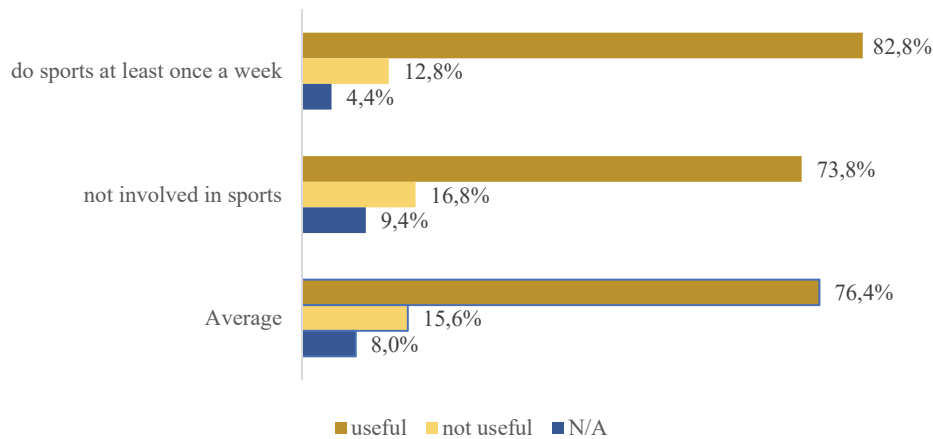
**Figure 12.** Do you think that increasing the number of physical education classes improves students' physical conditions? – according to sporting activities



Remark: On the basis of the complete (n=1015) sample. Chi-square test presents significant correlation (p=0.000).

Surprisingly, we cannot find the same correlation regarding the usefulness of physical education classes. Although there are differences, only a small amount of deviations could be observed. In comparison with the national average (76.4 percent), the difference between those who do sports at least once a week (82.8 percent) and those who do not participate in sports at all (73.8 percent) is observable (Figure 13.).

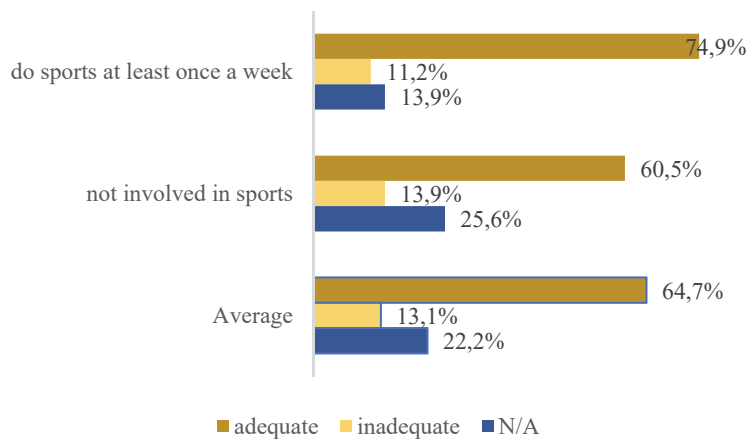
**Figure 13.** Do you consider daily physical education classes useful? – according to sporting activities



*Remark:* On the basis of the complete (n=1015) sample. Chi-square test presents significant correlation (p=0.004).

In the case of adequate conditions, the difference between sporting and non-sporting groups is visible, and can also correlate with the deviations of the previously presented demographic differences (higher level of education, better life conditions); it is also important to highlight the difference in the rate of “Not sure” replies: among those who are involved in sports, only 13.9 percent are unsure about the usefulness of classes in school, while among non-sporting population that number is 25.6 percent (Figure 14.)

**Figure 14.** Is there adequate infrastructure (gym, sports equipment) to support daily physical education classes in the (primary or secondary) school that is closest to your residence – according to sporting activities

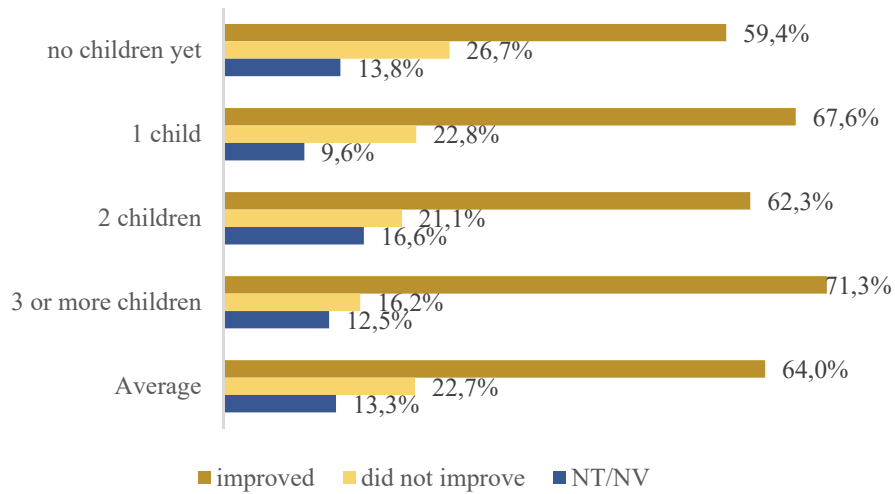


*Remark:* On the basis of the complete (n=1015) sample. Chi-square test presents significant correlation (p=0.000).

Since the change in the number of physical education classes is mostly relevant for the children – and through them, their parents – one can expect significant changes when including the variable for the number of children, (Figure 15.). What we found was that a smaller rate (59.4 percent) of childless people think that it improved the children’s physical conditions, which is a moderate difference from the average of the complete sample (64 percent).



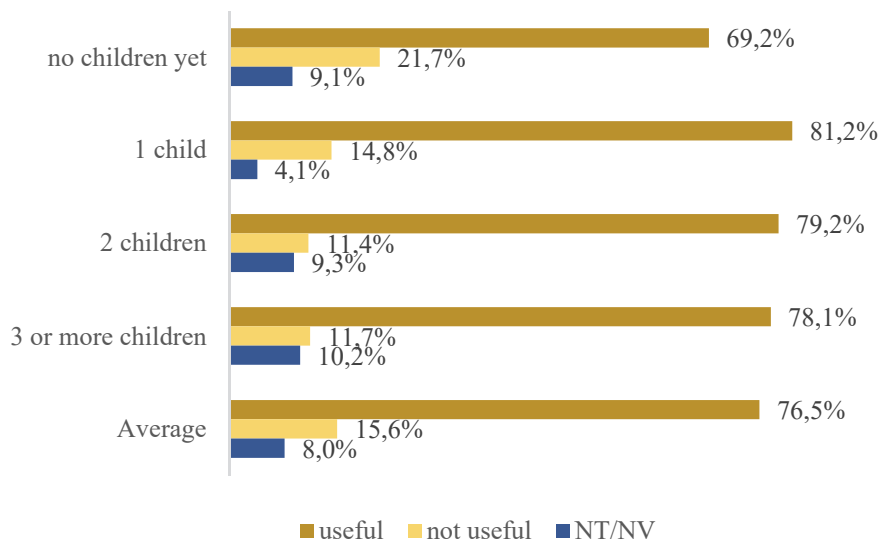
**Figure 15.** Do you think that increasing the number of physical education classes improved the students' physical conditions? – according to the number of children



*Remark:* On the basis of the complete (n=1015) sample. Chi-square test presents significant correlation (p=0.037).

As regards daily physical education classes, we could also observe relevant differences in the number of children. Those were found mostly between families with children, and families without children: for childless people, the usefulness of physical education classes is not a tangible factor, only a smaller ratio (69.2 percent) of them consider it useful in comparison with the complete sample (76.5 percent). Respectively, an opposite tendency is true for the ratio of “not useful” replies (Figure 16.).

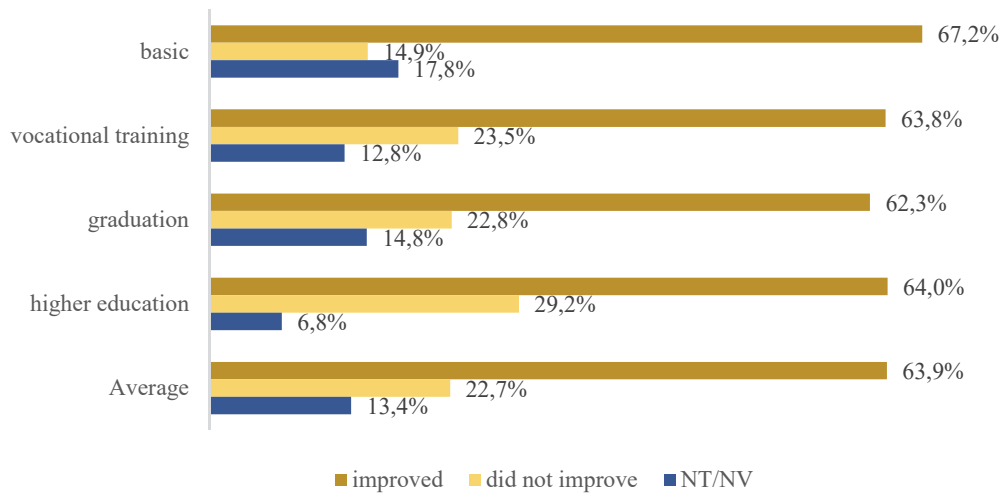
**Figure 16.** Do you consider daily physical education classes useful? – according to the number of children



*Remark:* On the basis of the complete (n=1015) sample. Chi-square test presents significant correlation (p=0.000).

Next, we assessed opinions regarding the physical status of the students, based on respondents' academic achievement, and type of residence (Figure 17.). What we could observe was that the level of education was most impactful on having an opinion. The ratio of those with higher academic achievement who could not form an opinion was about half (6.8 percent) of the complete sample (13 percent), while among the respondents with a basic level of education, this rate was higher than average (18 percent). Altogether, it is interesting to note that there is no difference between opinions based on educatedness and those based on other factors.

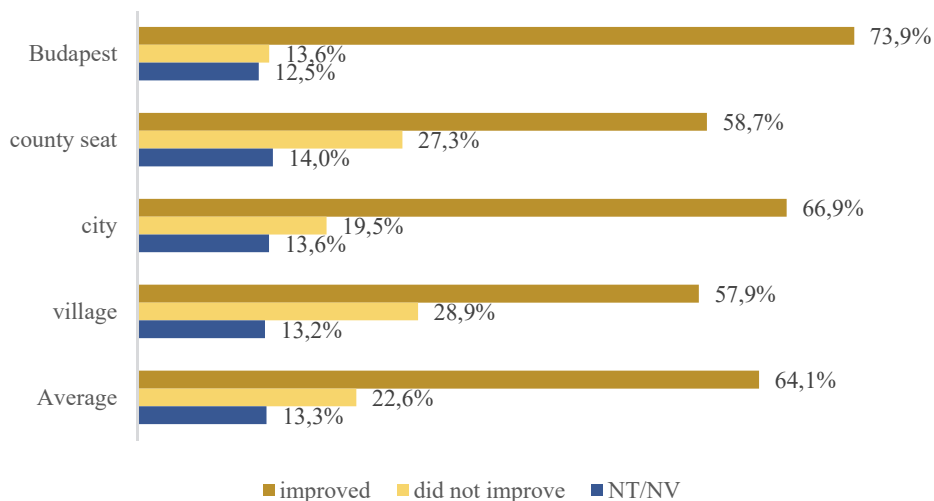
**Figure 17.** Do you think that increasing the number of physical education classes improved the students' physical conditions? – according to the level of education



*Remark:* On the basis of the complete (n=1015) sample. Chi-square test presents significant correlation (p=0.011).

Regarding the type of residence, Budapest stands out as unique (*Figure 18.*): among the inhabitants of the capital, the rate of those who do not think that the elevated number of physical education classes did not improve the students' physical conditions is much lower (15 percent), than the ratio of those who think it did improve students' physical conditions. At the same time, based on various types of residences (cities – 66.9 percent) the majority feels that daily PE classes improved the students' physical conditions, while the minority reckons otherwise.

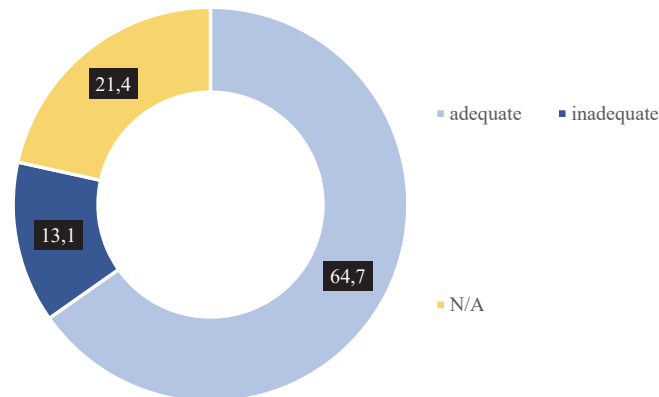
**Figure 18.** Do you think that increasing the number of physical education classes improved the students' physical conditions? – according to the type of residence



*Remark:* On the basis of the complete (n=1015) sample. Chi-square test presents significant correlation (p=0.002).

The respondents are also positive about infrastructure conditions of the schools for physical education; 64.7 percent of the population thinks that there are adequate conditions in the school that is closest to respondents' residences, although one fifth (21.4 percent) are undecided concerning this subject. (*Figure 19.*)

**Figure 19.** Is there adequate infrastructure (gym, sports equipment) for daily physical education classes in (primary or secondary) schools located near your residence?



*Remark:* On the basis of the complete (n=1015) sample.

### Summary and Conclusions

Our research can be considered a novelty; as it presents a representative image of the sporting habits of the adult population of Hungary during the challenging times of the Coronavirus pandemic.

According to our outcomes, we can assert that only 5 percent of Hungarians are involved in sporting activities at least three times a week, and the vast majority of the respondents are not involved in any kind of sports whatsoever. These unfavourable outcomes are consistent with previous investigations (Perényi, 2014; Magyar Ifjúság, 2016). At the same time, the “good news” is that this tendency did not deteriorate further due to COVID-19 (as one might assume based on the results of 2020 Magyar Fiatalok). With advancement of age, the willingness to do sports significantly decreases, which confirms preliminary investigations (Földesiné, 2008; Balogh, 2015; Fintor, 2019, Magyar Ifjúság, 2016). The type of habitation has a definite impact on the amount of sporting activities available and participated in. The larger the home, the higher the probability someone will play sports, which can be explained by more favourable infrastructural capabilities. This trend alliterates just as the higher number of sporting men to women – Kovács (2021). All sports considered, the most popular sports are running/jogging, cycling and soccer, which is also consistent with Kovács’ research (2021).

The popularity of media use as a free-time activity stands out in our research, since almost a half (46%) of the Hungarian population watches TV for more than 3 hours (!) daily. It is not necessarily related to the lockdown caused by the COVID epidemic – at least we did not investigate it in detail – moreover, previous (pre-pandemic) research also report correspondingly high television viewing habits (Urbán 2004; Magyar Ifjúság, 2016; Fintor, 2014).

In our previous research in 2016, we established that the students studying in the region of Northern Plains, welcomed the introduction of daily physical education classes. This attitude is similar regarding the investigation of adult population, since the opinions concerning physical education in schools are mostly positive: most people consider the increase the number of physical education classes useful; on top of that, they think that this implemented intervention of educational policy also enhanced the students’ physical conditions. The respondents are also positive regarding the infrastructural conditions of the schools, in contradiction with the observations of previous research (Vass et.al, 2015; Trencsényi, 2016), however, we have to add that during the recent years (within the 5-6 years that passed since the two referred research) this tendency could go through significant changes due to the developments implemented through the government-, local government-, parochial-funded or other tenders (in our present research, according to our respondents’ opinions, we assessed the conditions regarding 2021).

Body culture is an organic part of culture, thus the acquisition and inclusion of its values, as well as making them an element of lifestyle, all enrich one’s cultural capital. It is something that could also contribute to the facilitation of social mobility. Therefore, the endearment of sports has to be initiated as soon as possible; preferably at elementary school age. According to the unanimous opinion of the vast majority of the Hungarian adult population, the quality impartations of knowledge in the fields of physical education and sports (through daily physical education classes) could greatly contribute to the solution of the above mentioned problems.

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