

## PHYSICAL ACTIVITY OF PRIMARY AND SECONDARY SCHOOL STUDENTS IN THE CITY OF MOSTAR

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**ABSTRACT:** This research aimed to determine the level of physical activity of primary and secondary school students from the area of the city of Mostar. The research was conducted on a sample of  $N = 1381$ , aged 11 to 18, attending the fifth and ninth grades of primary school and the first and third grades of secondary school. The obtained data show that the students of the ninth grade of primary school are the most active, while the students of the third grade of secondary school are the least active in terms of engaging in physical activities in their free time. Regarding engaging in organized physical activity, the results showed that the greatest interest in engaging in organized physical activity was expressed by students in the fifth grade of primary school, while on the other hand, the least active students were in the third grade of secondary school. Regarding the frequency of organized physical activity on a weekly basis, we can conclude that it is more frequent among upper grade students, probably because higher grade students are at a more serious level of organized physical activity.

**Keywords:** Physical activity, sports, students

### INTRODUCTION

In the modern age of technology, which has its advantages and disadvantages, more and more children and young people are striving for a sedentary lifestyle, which leads to reduced mobility, insufficient activity required by the body to maintain the necessary level for normal functioning and health - hypokinesia.

Insufficient movement of children and young people negatively affects the anthropological system and health in general. Numerous studies indicate that physical activity is one of the main means in the fight for a healthy and quality life.

For human health and well-being, in addition to a healthy diet and quality rest, regular physical activity is also necessary. However, despite the growing knowledge about the importance and necessity of physical activity, there seems to be no greater gap between what we know and what we do than when it comes to this behavior. This is clearly seen in our population, which seems to be physically inactive in all segments of life - at school and at work or during free time. We spend too much time in front of the screen comfortably reclining in an armchair and watching others play tennis or basketball, we go everywhere by car, and the bike collects dust in the basement - we haven't played sports or recreation for years. (Nutrition and physical activity - Guide to healthy living habits, 2017.) In the accelerated pace of modern life, especially in the city, there is more and more free time, but it is less and less used for their own needs (Andrijašević, 2000). Neglecting the need for exercise can lead to overall developmental disorders (Prskalo 2005).

The aim of this research was to investigate how physically active students are in the area of the City of Mostar, whether they practice a sport, how many times a week, and whether they ride bicycles in their free time. The respondents were students of the fifth and ninth grades of primary schools, and the first and third grades of secondary schools of the City of Mostar. A total of 1381 respondents participated.

### METHODS

This research aimed to determine the differences in the level of free and organized physical activity among primary and secondary school students from the City of Mostar.

### Sample of examinees

The research was conducted on a sample of  $N = 1381$  primary and secondary school students, aged 11 to 18 years. Out of the total number of students,  $N = 695$  were of primary school age, more precisely  $N = 331$  of them were fifth grade students and  $N = 364$  of them were ninth grade students. Out of the total number of high school students  $N = 686$ ,  $N = 343$  were first grade students, the rest of the respondents  $N = 343$  were third grade students. The primary schools that were exposed to the research are: 6th elementary school, IV Elementary school, Mustafa Ejubović Šejh Jujo, elementary school Bijelo Polje, elementary school Blagaj, elementary school Blagaj, elementary school Cim, elementary school Petra Bakula, elementary school SS Kranjčević, elementary school Vrapčići, Elementary school "Ivana Gundulića", Elementary school "Mujaga Komadina", Elementary school "Omer Maksumić", Elementary school Antun Branko Šimić, Elementary school Drežnica, Elementary school Ilija Jakovljević, Elementary school Zalik, elementary school "Marina Držića" Buna, elementary school Bartola Kašića, Gnojnice Elementary School, Ilići Elementary School, Third Elementary School. The high schools that were exposed to the research are: Second Gymnasium, Fr. Grga Martić Gymnasium, Mostar Gymnasium, Karađoz Bey's Madrasa, Ruđer Bošković Electrical Engineering School, Juraj Dalmatinac Construction School, Secondary School of Economics and Hospitality and Tourism, Secondary School of Civil Engineering, Secondary School of Mechanical Engineering, Medical High School, Sisters of Mercy Medical School, Traffic High School, "Faust Vrančić" High School of Mechanical Engineering, Gabrijel Jurkić High School of Fine Arts, Textile and Agricultural School, School of Tourism and Hospitality, United World College.

### Variable sample

The results of the research were obtained on the basis of a survey sent to the management of the above-mentioned schools, and conducted in cooperation with their class teachers. Students' free activity was checked with the question "I ride a bicycle in my free time", while organized physical activity was examined with the questions "Do they play sports" and "How many times a week do they train"

### Methods of data processing

The data were entered into the software package for social sciences (Statistical Package for Social Sciences - SPSS, Version 26.0) in which statistical data processing was performed. For all variables, frequency, percentage were calculated, and the value of mod was used as a measure of central tendency. Each of the expressed attitudes of the students is shown graphically for easier understanding.

### RESULTS AND DISCUSSION

Insight into the first group of graphs (Graph 1 - Graph 4) which shows the descriptive parameters of assessing the level of leisure activities "I ride a bike in my spare time", we can see that in terms of leisure activities the highest level was achieved by ninth graders. Out of the total number of ninth grade respondents, 96 (28%) said that they should ride a bicycle for more than 60 minutes. per day, while 109 (32%) students stated that they ride a bicycle for 30-60 minutes.

In second place in terms of the level of free activity are fifth grade students with 88 students (28%) who said that more than 60 minutes. they ride bicycles daily, while 93 (30%) practice cycling for 30-60 minutes. Third in line are high school first graders. In the last place in terms of physical activity are the students of the third grade of high school. Only 45 (14%) ride a bike for more than 60 minutes. per day, while 74 (23%) ride a bike for 30 - 60 minutes per day. When it comes to engaging in organized physical activity, which was assessed by the variable "Do you practice any sport" (Graph 5 to Graph 8), we can see that with increasing age (age of students) there is less interest. We can see that the highest percentage of those who engage in physical activity among fifth grade students (Chart 5) is 185 (57%) students. When it comes to engaging in physical activity on a weekly basis (Graph 9), we see that most students train three times a week (71), 57 students train twice on a weekly basis, while 23 of them train four times a week. On the other hand, those who do not engage in organized physical activity, 138 of them (42%). In the second place in terms of organized physical activity are ninth grade students (Chart 6), 143 of them (39%). Based on the week (Graph 10), 37 students train three times a week, 29 students train four times a week, while 28 of them train twice a week. There are 212 (58%) of those who do not engage in physical activity. In third place are first-grade high school students (Chart 7), while in third

place are third-grade high school students (Chart 8) 78 (23%). On a weekly basis, 30 of them train three times, 28 of them five times, while 24 of them train four times a week (Graph 12). There are 260 (77%) of those who do not train in the third grade of high school.

A study (Petrović, 2020) conducted with high school students concluded that students who are more engaged in physical activity have a lower level of body mass index, which is directly related to the health status of the organism. Therefore, we can conclude that much more attention needs to be paid. According to data from the report (Inchley et al. 2016) Health Behavior in School-aged Children in the countries of the European Union the prevalence of insufficiently physically active adolescents ranges from 82 to 95% for girls and from 72 to 89% for boys. Data for Croatia (Ajman, 2016) show that at the age of 15, 88% of girls and 75% of boys do not spend at least one hour of physical activity at moderate to submaximal intensity per day. The data obtained in the research (Floričić, 2021) can determine that fewer and fewer students engage in physical activity in their free time, but most lower grade students still practice physical activity in accordance with the recommendations of the World Health Organization and the results obtained in our study. As the years increase, the minutes in which students are physically active due to various obligations decrease. (Klaričić and Vidranski 2021) They came to the conclusion that there is no difference in total physical activity between urban and rural areas, but students from urban areas show greater physical activity in Physical Education and Health classes and during physical activities in free time. Students who come from rural areas show greater physical activity in a variety of sports. Contrary to the results of the research (Klaričić, Vidranski and Cvitanović 2020), we obtained the result that lower grade students engage more in physical activity than higher grade students. In contrast to the research he conducted (Prskalo 2007) on a sample of 287 students from 1st to 4th grade of primary schools (ages 7 to 10). The research showed a worryingly low frequency of responses that put the subject of physical education and health in the first place in importance for future life (13%) while the preference of this subject is slightly higher (37%). (Badrić, Prskalo and Kvesić 2011) within the 20th Summer School of Kinesiology of the Republic of Croatia in 2011 wrote a professional paper on "The importance of kinesiological activity in the formation of children's free time." In their work, they say that many developed countries of the world are facing the problem of immobility of children and youth and are trying to stop it in various ways. One of the ways to try to achieve this is to implement intervention programs. The programs aim to increase the level of daily physical exercise of children, ie to create the habit of daily application of kinesiological content.

## CONCLUSIONS

Minimum recommendations for older children and young people require a higher level of physical activity compared to adults. During the day, children and young people aged 6 to 17 should accumulate at least 60 minutes of physical activity each day, moderate to high intensity (Nutrition and physical activity - Guide to healthy living habits, 2017)

Children and adolescents should avoid prolonged periods of inactivity, ie rest for more than 2 hours a day, most often related to computer use, playing games, watching television (Diet and physical activity - Guide to healthy living habits, 2017).

Parents also play an important role in participation by supporting them or imitating their children. In addition to parents and family, school is also important because it should provide the bulk for the development of physical activity, including informing students and encouraging physical activity.

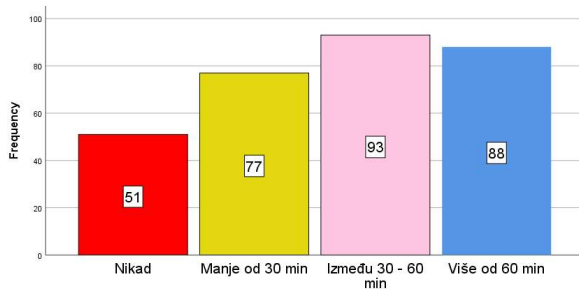
Rare are the human activities that can simultaneously influence as many human traits as possible through professionally designed kinesiological activities. If we accept the obvious fact that the need for movement is a basic biotic need and that the child voluntarily and completely surrenders to spontaneous play or some other form of physical activity, we conclude that from the point of view of "useful" leisure time kinesiological activity without alternative (Prskalo, 2005 )

This result of training organized activities on a weekly basis is logical given that high school students are

already specializing in selected sports activities, while on the other hand in primary schools it is still on an amateur basis. An alarmingly large number of primary school students stated that they do not train in any sport, 50.5% of them, and 70% of the secondary school age population. The biggest reason for this can be found in the poor organization of training sessions. It is assumed that they are usually in the evening, which in time does not suit children who come from the vicinity of Mostar or live a little further from school, and at that time do not have transportation to training. Also worrying is the fact that a larger number of respondents of secondary school age stop playing sports after primary school age. The reason for such results can be found in all major school obligations that are placed before the student. It is assumed that the solution could be a better organization of school schedules, where children would finish their school obligations earlier and could arrive for trainings. Also, one of the solutions is greater promotion of sports in the teaching of Physical Education in cooperation with sports clubs, and the affirmation of children in sports by showing them their affinities for some kind of sport.

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**Graph 1.** Fifth grade of elementary school  
In my free time I ride a bike



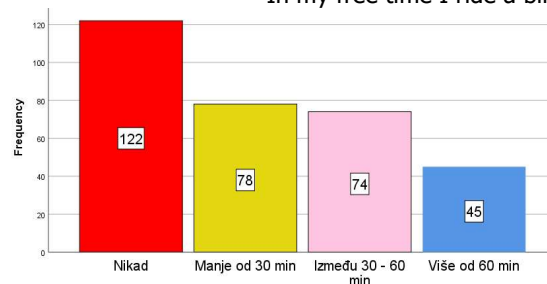
**Graph 2.** Ninth grade of elementary school  
In my free time I ride a bike



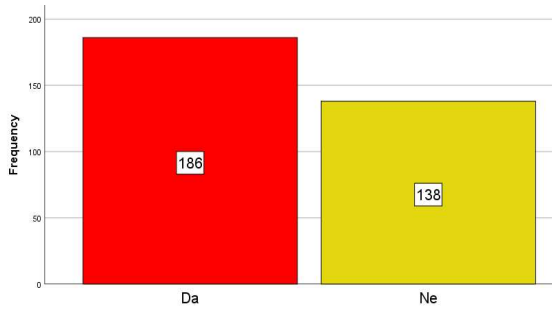
**Graph 3.** First grade of high school  
In my free time I ride a bike



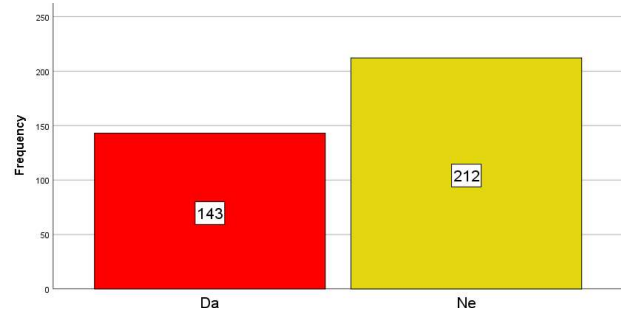
**Graph 4.** Third grade of high school  
In my free time I ride a bike



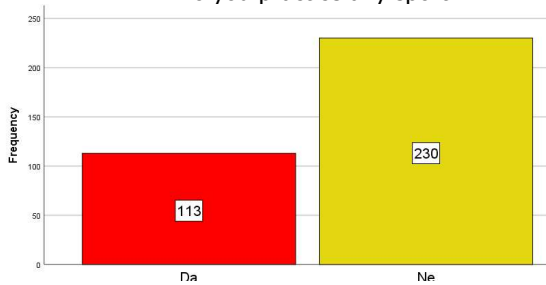
**Graph 5.** Fifth grade of elementary school  
Do you practice any sport



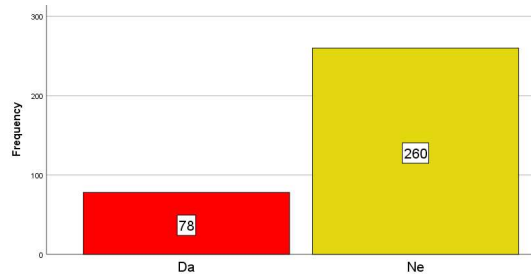
**Graph 6.** Ninth grade of elementary school  
Do you practice any sport



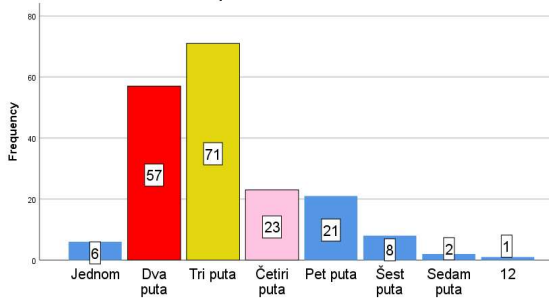
**Graph 7.** First grade of high school  
Do you practice any sport



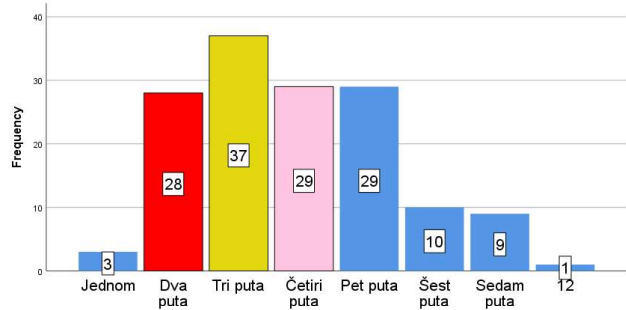
**Graph 8.** Third grade of high school  
Do you practice any sport



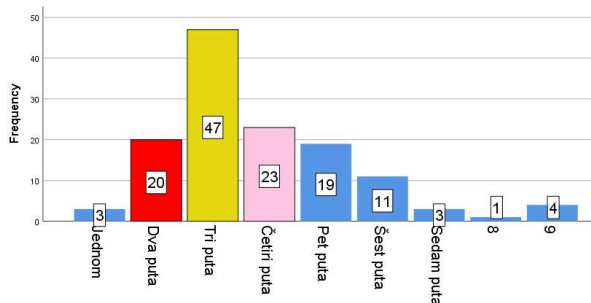
**Graph 9.** Fifth grade of elementary school  
How many times a week you practice



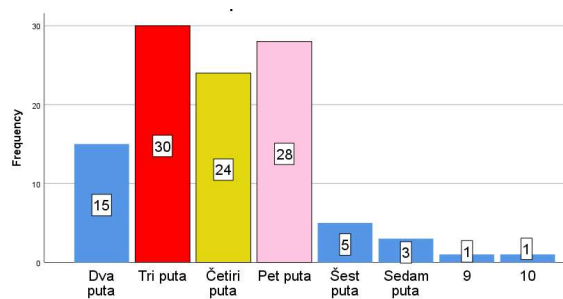
**Graph 10.** Ninth grade of elementary school  
How many times a week you practice



**Graph 11.** First grade of high school  
How many times a week you practice



**Graph 12.** Third grade of high school  
How many times a week you practice



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