

## MOTOR ACTIVITY OF JUNIOR HIGH SCHOOL STUDENTS

Research notes

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### Abstract

*Physical activity improves the physical, mental and health-prophylactic fitness of the body. Regular physical activity is important for overall development in all age periods. In the current paper are considered the type and capacity of motor activity of junior high school students in high schools. With the help of a chronogram, the students' interests in sports activities in and out of the learning process were examined. The percentage distribution for a certain number of hours of different types of physical activity practiced by the studied students is presented in the table.*

*We present in the report some of the results of the research project "Physical education and sports as factors for the personal formation and physical development of adolescents", and in particular the type and volume of motor activity of students.*

**Keywords:** motor activity, capacity, students, chronogram, sport activities

### INTRODUCTION

In the world that we are living today, the active motor regime and a healthy lifestyle are the factors that help young people adapt to the living conditions. Purposeful motor activity improves the physical, mental and health-prophylactic fitness of the body. It is a set necessity, a condition for the development and perfection of a person. The motor activity of the students is a major factor determining the functional state of one's being. It is a combination of various motor actions and movements, which people systematically and purposefully perform mainly in their spare time to positively influence the organism. The motor activity is a biological, psycho-pedagogical and social category, and the movement is its main component (Kostov (Костов), 2006). The impact of physical education and sport for the harmonious and comprehensive development of students is directly related to the type and volume of their physical activity and the physical capacity that is a consequence of it. Solving the problems for determining the volume of motor activity and physical capacity of the students are especially relevant from a functional and health-prophylactic point of view. The role of parents is essential for children's participation in sport activities in school and abroad in the weekly regime of children (Nikolova (Николова), 2012). Parents perceive and evaluate their participation in joint mobility activities with their children (Rusev (Русев), 2000). Activities with sport, tourism and motor activities together in the family have a favorable effect on the relationships and the state of health of adolescents.

In the presented study we analyze different types of motor activity of students, particularly what types of motor activity the students are mainly participating at and in which frequency per week.

### METHOD

The aim of the study is to determine the most frequent types of physical activity that students are engaged in and particularly to determine the frequency of their participation presented in hours per week. Following tasks were established and achieved in order to achieve the research objective: To determine the contingent of surveyed persons; Preparation of the toolkit and conducting the research; data analyses and summarizing the results. For the realization of the assigned tasks we used the following methods: Theoretical analysis of literature and internet sources of the research problem; Questionnaire Survey and data analyses.

The contingent of the study was comprised from 174 students in total (88 girls and 86 boys) enrolled in secondary education in

following schools: III Primary School "Dimitar Talev", VII Secondary School "Kuzman Shapkarev", and High School of Mathematics "Akad. Sergey Korolyov" all located in Blagoevgrad. From the total sample, 52 participants were students in 5th grade, 56 students in 6th grade, and 66 participants were students in 7th grade.

The survey was conducted using specially designed questionnaire that reports the chronological order of the type and volume of the students' motor activity and hours of participation in period of one week. Obtained data were analyzed using basic statistic parameters and presented in percents %.

### RESULTS AND ANALYSIS

The analyses of percentage distribution for a certain number of hours of three types of physical activity - walking, running and participation at Physical education classes, practiced by the students-participants in the study are presented in Table 1. According to the results, walking in an hourly time per week as a motor activity studied by us is the least in the 5th-grade students. 25% are walking from 1 to 5 hours, 40% of participants walks from 6 to 10 hours during the week. Only 35% of surveyed students in 5th grade walk more than 11 hours during the week. The results show that 6th and 7th-grade students spend twice as much time walking than those in 5th grade. Running, as a motor activity is practiced by students in the range of 1 to 3 hours, and again the lowest percentage is determined for fifth graders (52%), with the percentage increasing for this range of time with each upper class. Almost none of the students surveyed does run more than eight hours a week. Regarded the participation at physical education classes, considered as the main physical activity in the learning process, all students have indicated that they attend and participate actively in the courses during the school week.

The results presented in Table 2. concerning the athletic and gymnastic. Presented results show that surveyed students devote extremely little time to these types activities. Athletics and gymnastics are obligatory areas of educational content in school, but in general, they are not preferred by students.

The number of hours per week spend in participation in ball games (football, volleyball, basketball and handball) are presented in Table 3. According the percentage distribution for the number of hours practicing games with a ball (sports games), 83% of fifth-graders, 90% of sixth-graders and 96% of 7th-grade students pointed out the practice of playing football for up to 5 hours a week. Rarely students spend more than 6 hours a week practicing football in school or

Table 1. Percentage distribution of number of hours of weekly participation in walking, running and Physical education classes

School Grade/class	Students' motor activity in hours per week						
	Walking			Running			Physical Education lesson 1 – 3 lessons
	1 – 5 hours	6 – 10 hours	over 11 hours	1 – 3 hours	4 – 7 hours	Over 8 hours	
5 <sup>th</sup>	25%	40%	35%	52%	44%	4%	100%
6 <sup>th</sup>	2%	38%	60%	76%	22%	2%	100%
7 <sup>th</sup>	0%	25%	75%	85%	15%	0%	100%

Table 2. Percentage distribution of number of hours of weekly participation in track and field and gymnastics

School Grade/class	Students' motor activity in hours per week			
	Track-and-field		Gymnastics	
	0 - 2 hours	over 3 hours	0 - 2 hours	Over 3 hours
5 <sup>th</sup>	90%	10%	89%	11%
6 <sup>th</sup>	100%	0%	96%	4%
7 <sup>th</sup>	96%	4%	94%	6%

Table 3. Percentage distribution of number of hours of weekly participation in ball games (football, volleyball, basketball and handball)

School Grade/class	Students' motor activity in hours per week							
	Football		Basketball		Volleyball		Handball	
	0 - 5 hours	6 – 10 hours	0 - 5 hours	6 – 10 hours	0 - 5 hours	6 – 10 hours	0 - 5 hours	6 – 10 hours
5 <sup>th</sup>	83%	17%	100%	0%	100%	0%	100%	0%
6 <sup>th</sup>	90%	10%	93%	7%	100%	0%	98%	2%
7 <sup>th</sup>	96%	4%	90%	10%	100%	0%	100%	0%

Table 4. Percentage distribution of number of hours of weekly participation in net games (tennis, table tennis and badminton)

School Grade/class	Students' motor activity in hours per week					
	Tennis		Table tennis		Badminton	
	0 – 3 hours	Over 4 hours	0 – 3 hours	Over 4 hours	0 – 3 hours	Over 4 hours
5 <sup>th</sup>	98%	2%	100%	0%	100%	0%
6 <sup>th</sup>	96%	4%	96%	4%	98%	2%
7 <sup>th</sup>	97%	3%	100%	0%	100%	0%

Table 5. Percentage distribution of number of hours of weekly participation in martial arts, swimming, walking in nature, fitness and bodybuilding

School Grade/class	Students' motor activity in hours per week									
	Martial arts		Swimming			Walking in nature			Fitness and bodybuilding	
	0 – 3 hours	Over 4 hours	0 – 2 hours	3 – 4 hours	Over 5 hours	0 – 6 hours	7 – 12 hours	Over 13 hours	0 – 3 hours	Over 4 hours
5 <sup>th</sup>	100%	0%	71%	14%	15%	75%	17%	8%	87%	13%
6 <sup>th</sup>	100%	0%	91%	9%	0%	72%	15%	13%	94%	6%
7 <sup>th</sup>	92%	8%	84%	7%	9%	59%	33%	8%	86%	14%

outside school. The values in the hourly time range from 0 to 5 hours are the same for the other types of sports games: basketball, volleyball and handball. None of the surveyed persons practice volleyball for more than 6 hours a week. Sports games are most preferred for practicing during Physical education and sport classes, but outside of the learning process, students spend almost no time refining their technique unless they are training the sport professionally.

Table 4 presents the motor activities results of students practicing in racquet sports. In all three types of sport (tennis, table tennis and badminton), the time spent for a week from the students is in the range of up to 3 hours. Almost none of them practiced the respective sports over 4 hours a week. A large number of students, particularly over 80%, indicated that they do not spend an hour a week on badminton and table tennis.

Results for participation in martial arts, swimming, walking in nature and fitness are presented in Table 5. From the analyses of percentage distribution for number of hours per week spend in these three types of activity, it can be concluded that practicing martial arts, students devote no more than 3 hours per week from their time, with a significant percentage (over 85%) of students not practicing at all such sports. Swimming as a sport was practiced up to 2 hours per week from 71% of the fifth-graders, 91% of the sixth-graders and 84% of the seventh-graders. From total number of fifth graders, 15% practice swimming over 5 hours per week. For nature walks with

family or friends, 75% of students from the 5th grade devote up to 6 hours per week, as in the 7th grade the percentage decreases to 59%. Some students prefer walking in nature, allocating over 13 hours a week. This is 8% of the fifth-graders and the seven-graders and 13% of the 6th grade students.

Nowadays, fitness is quite popular activity among young people. Every young person wants to look good, to maintain and build a fit and muscular body by visiting fitness centers. According our results, 87% of fifth graders spend up to 3 hours per week for fitness and 13% of them spend over 4 hours per week. In the 6th grade students, 94% take the time up to 3 hours and 6% spends more than 4 hours a week in fitness centers. The time spent in the gym in the chair is similar to that of fifth-graders, particularly 86% of them devote up to 3 hours per week and 14% devote over 4 hours per week.

Analyzing the overall results from the study, we can summaries following:

- motor activity of a large part of the students during the week is limited to walking and out-of-school activities as main sports interest of students;
- Students prefer to play ball sports (football, basketball and volleyball) outside of school. This is understandable, considering the socializing function of team action for adolescents.
- A high percentage of surveyed participant indicated that they did not devote not an hour during the week to practicing racket

sports - badminton and table tennis.

- The most preferred and accessible motor activity for the students is walking in nature, for which they devote a maximum of one hour per week.

## CONCLUSION

As a result of the research, we may point out that the established motor activity of the students in the weekly regimen is inadequate. A more detailed study in the future of the realized volume through the number of steps of the students per day will complement this finding and will give a clear idea of their motor activity. This can be changed with increasing students' motivation to participate in the learning process and outside of school sports activities - organized and informal. As well as the formation of knowledge in adolescents about the need for active motor activity, as an integral part of human daily life.

The basis of the course "Physical Education and Sport" allows for a wide and varied educational content. Known and practiced, as well as newly emerging sports and motor activities are extremely numerous and various. As different types (groups) offer different physical activity level (Marinov & Atanasiu (Маринов & Атанасиу), 2009) as well as different emotionality (Tomov, 2017).

The growing interest in various sports (obligatory and elective fields) at school is logical to move outside, as the students individually and in a team to exercise their preferred sporting activities. The forms of tourist activity are most preferred by the students because of the possibility to regulate the physical exertion, the choice of duration and difficulty of the route, all tailored to the age characteristics

of the students (Tomova & Ivanov (Томова & Иванов), 2010; Tomova (Томова) 2013).

The physical education teachers' role as well as with the parents' is crucial for the formation of affection for the movement and the need for daily sports activities as part of the upbringing of adolescents.

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