

THE PHENOMENON OF NON-EXERCISE IN PHYSICAL EDUCATION LESSONS IN SECONDARY SCHOOLS

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Key words:

- physical activity,
- physical education,
- a phenomenon of non-exercise.

Abstract:

The problem of avoiding exercise during physical education classes by students is quite common and concerns actually all levels of school education.

In the age of computerization, this phenomenon is common and unfortunately a sedentary lifestyle takes more and more children and young people. This frequently leads to overweight, obesity and other diseases related to the lack or scarcity of physical activity. The aim of this work was to examine the phenomenon of non-exercise in secondary schools.

Examination was carried out in 45 secondary schools in the province of Silesia during which examined 2,016 lessons of physical education. Observations were carried out in 10 different types of lessons.

The percentage of non-exercise students during physical education classes amounted 15.61%. The percentage of lessons held in mixed sex groups, where students did not participate actively during the lesson was significantly higher than this value, and amounted 17.1%. Classes held in the group of boys characterized by significantly lower percentage of avoiding exercise (14.08%), while in the group of girls, this percentage was significantly higher (16.85%).

INTRODUCTION

Physical activity has a huge impact on various spheres of human life. This relationship concerns people of all ages. Healthy lifestyles, disease preventing, coping with fears, stress and therapy of many disorders and diseases are the main areas of interaction physical activity [1]. Motor activity of children and young people is vital for their proper psychophysical development. Its deficiency (hypokinesia) is considered to be the main cause of the so-called diseases of civilization [2, 3].

Describes a series of tips for the best to the health and correct physical development of children and youth frequency, intensity and volume of physical activity. According to C. Bouchard, S.N. Blair and W. L. Haskell [4] youth in age from 5 to 18 years should devote to physical activity 60 minutes per day or more. This activity should be moderate or intense. K. Frömel [5] concludes that it is indispensable that girls should devote for daily physical activity about 70 minutes, and the boys 90 minutes. J. Drabik [6] thinks that the ideal physical effort for children and young people is the activity at 50% V02max. National Association for Sport and Physical Education USA in 2004, published a guide of appropriate physical activity levels of young people. The guidelines contained in it say that children and young people should:

- be physically active minimum of 60 minutes on most days of the week, the best while all the days,
- each day, participate in several intensive physical exercise lasting at least 15 minutes,

- Avoid too long time intervals between the various forms of physical activity (two or more hours) [7].

Physical activity is mostly taken by children and young people at physical education classes during a stay in school. Proof of that are the results of many studies carried out both in Poland and in other countries, which show a lower level of activity on days off from classes at school, compared with the days at school. [8, 9, 10, 11].

It is often that the non-exercise of children and youth during physical education lessons is a growing problem. It is said that from year to year the percentage of students taking an active part in the classes decreases. However, there is significant and up to date scientific research in this area. Partial data have a few local educational authorities or other institutions. In Gdansk and Lodz in 2007, permanently sick leave of physical activities had 10% of students. The same applies to in Cracow where in physical education classes does not take part 10% of high school students (about 15,000).Curators, school principals and teachers believe that it is a widespread phenomenon [12]. The problem seem to be getting bigger.According to studies carried out on 827 high school students in Wejherowo, Zaustowska [13] concluded that the percentage of non-exercisers students is increasing rapidly from year to year. Interesting thing is that the highest percentage increase of the non-exercisers can be seen at a time when at school increased the amount of girls. However, so far no one has taken the fight to try to overcome this problem.

AIM OF THE RESEARCH

The aim of this study was to estimate the extent of non-exercise students during physical education classes in secondary schools and to define the main causes of the lack of active participation by students in these classes. Formulated the following research questions:

1. What is the percentage of non-exercisers students in relation to actively participating in the physical education classes?
2. Does sex of exercisers, class and type of lessons affect the percentage of non-exercisers in the physical education classes?
3. What are the reasons of avoiding active participation in the physical education classes?
4. What is the percentage of permanent sick leave in relation to the number of students enrolled in the log?

MATERIAL AND RESEARCH METHOD

The paper presents a fragment of the results of the research carried out in the framework of a research project of young research workers and doctoral students' The programs of promoting physical activity in schools the Silesian Province and their type and localization. "The research was conducted in the last week of November 2012 in 45 randomly selected secondary schools in Silesia. All schools were situated in urban areas. Collectively, the observed 2 016 physical education classes, during which physical education teachers of each school record in a specially prepared questionnaires, the number of exercisers, the number of non-exercisers, the number of students with permanent sick leave from classes, and the reasons not participating actively in physical education classes . In this study, the number of exercisers and non-exercisers were calculated in relation to the number of students being on a particular day at physical education classes, while, the number of permanently sick leave to the number of all students enrolled in the log. Data were obtained from 870 (43.15%) girls lessons, 937 (46.48%) boys and 209 (10.37%) coeducational classes (Table 1, Figure 1).

Table 1. Observed of PE lessons depending on sex

Type of classes	n	%
Girls classes	870	43,15
Boys classes	937	46,48
Coeducational classes	209	10,37
Total	2016	100

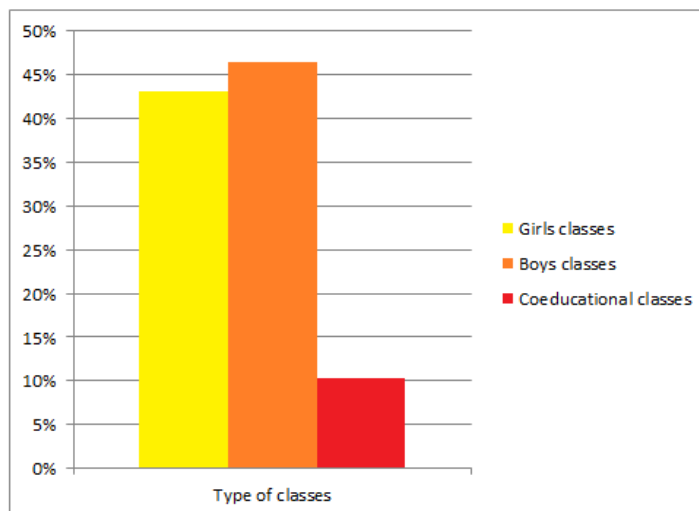


Figure 1. Observed of PE lessons depending on sex

The observations were included in different types of lessons. Most of classes volleyball 412 (20.44%) and only ten outdoor classes (Table 2, Figure 2).

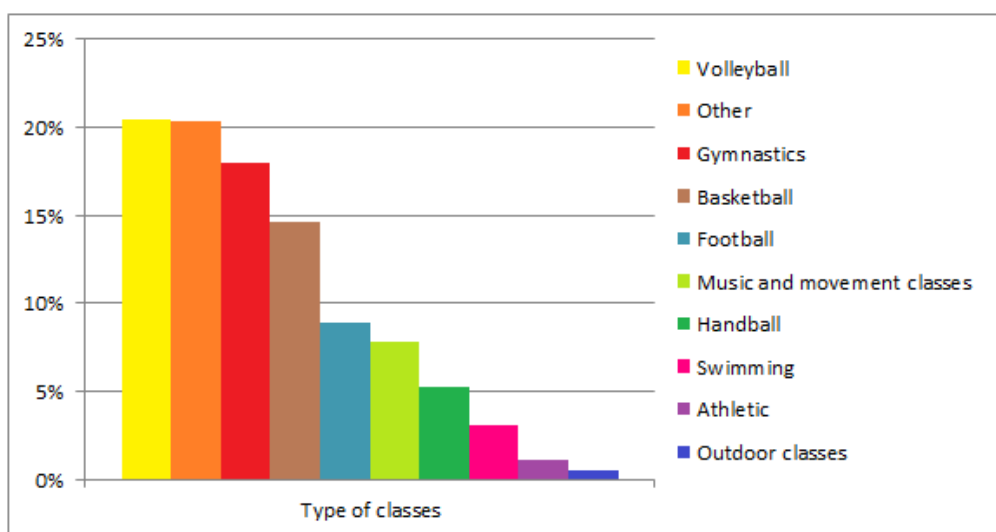


Figure 2. Observed of PE lessons depending on their type

To determine the relationship between the non-exercise at physical education classes and gender, class and the type of classes used the test of rate structure. The level of significance $\alpha = 0.05$ ($p < 0.05$), which means that the percentage of non-exercisers in relation to gender, class, and the type of classes is significantly different from the percentage of non-exercisers in entire study population.

Table 2. Observed of PE lessons depending on their type

Type of classes	n	%
Volleyball	412	20,44
Other	411	20,39
Gymnastics	362	17,96
Basketball	294	14,58
Football	179	8,88
Music and movement classes	158	7,84
Handball	106	5,26
Swimming	62	3,08
Athletic	22	1,09
Outdoor classes	10	0,50
Total	2016	100,00

RESEARCH RESULTS

The percentage of non-exercisers students during physical education classes amounted 15.61%. The percentage of classes take place in coeducational groups on which students did not participate actively during the lesson was significantly higher than this value and amounted 17.1%. Classes taking place in the boys' group characterized by significantly lower percentage of avoiding exercise (14.08%), while in the group of girls, this percentage was significantly higher (16.85%) (Table 3, Figure 3).

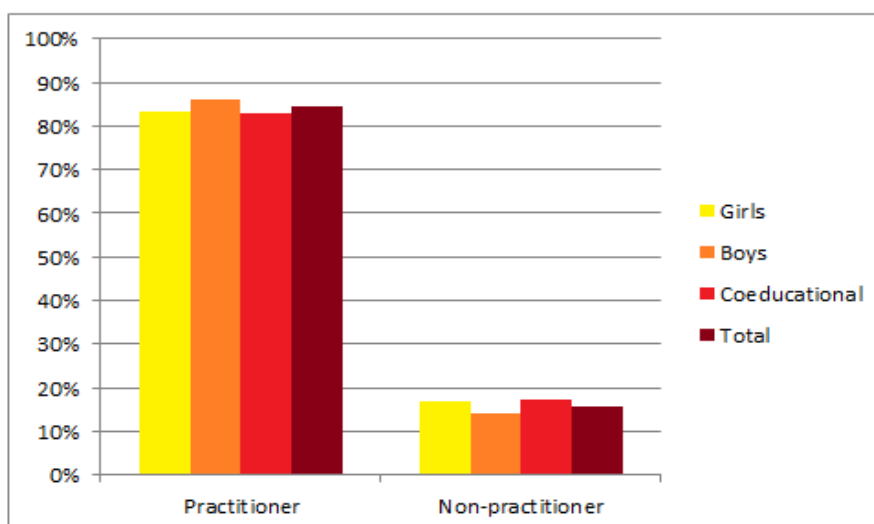


Figure 3. Practitioner and non-practitioner in physical education classes depending on sex

Table 3. Practitioner and non-practitioner in physical education classes depending on sex

Practitioners sex	Practitioner		Non-practitioner		p
	n	%	n	%	
Girls	9322	83,15	1889	16,85	0,003*
Boys	10549	85,92	1729	14,08	0,000*
Coeducational	2759	82,90	569	17,10	0,027*
Total	22630	84,39	4187	15,61	

* Value statistically significant at 0.05 level (all tables)

In the first class, the percentage of non-exercising students amounted 16.9% and was significantly higher than the percentage of non-exercising in the entire population, while the

percentage of non-exercising students in class fourth amounted 13.63% and was significantly lower than the percentage of non-exercising of the entire population. (Table 4, Figure 4).

Table 4. Practitioner and non-practitioner during a physical education classes depending on the class

Class	Practitioners		Non-practitioner		p
	n	%	n	%	
1	7209	83,10	1466	16,90	0,004*
2	6443	83,80	1246	16,20	0,209
3	5797	85,63	973	14,37	0,011*
4	3181	86,37	502	13,63	0,002*
Total	22630	84,39	4187	15,61	

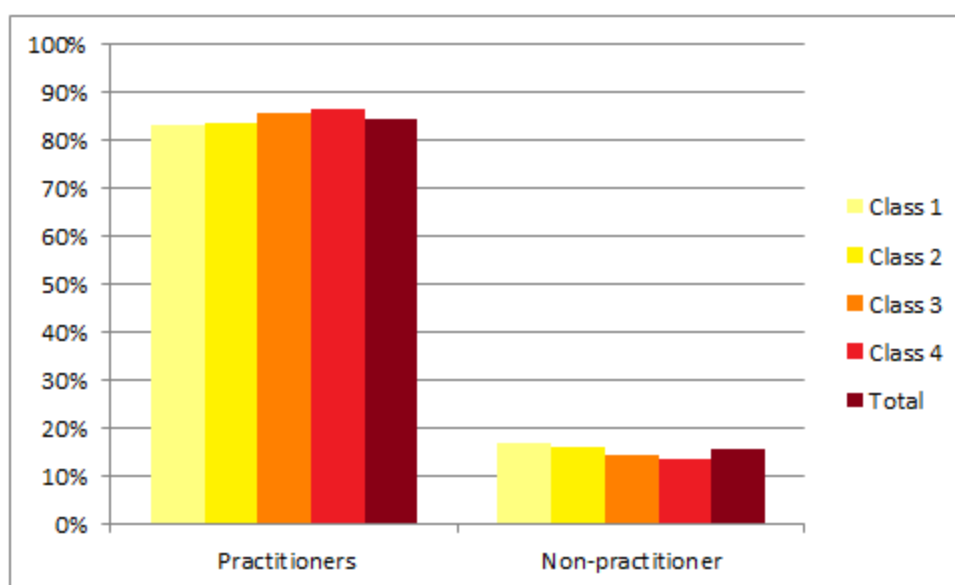


Figure 4. Practitioner and non-practitioner during a physical education classes depending on the class

The research has covered 10 types of physical education classes. Statistical inference showed that during outdoor activities and athletics less students do not exercise, and swimming and football classes characterized significantly higher percentage of avoiding movement exercises. (Table 5, Figure 5).

Table 5. Observed classes depending on the type in all classes

Type of lesson	Practitioners		Non-practitioner		p
	n	%	n	%	
Athletic	282	88,40	37	11,60	0,049*
Gymnastics	3987	87,26	582	12,74	0,000*
Swimming	513	70,37	216	29,63	0,000*
Handball	1254	85,66	210	14,34	0,192
Volleyball	4569	82,38	977	17,62	0,000*
Basketball	3538	85,05	622	14,95	0,273
Football	2028	81,74	453	18,26	0,001*
Music and movement classes	1942	87,67	273	12,33	0,000*
Outdoor classes	84	90,32	9	9,68	0,115
Others	4433	84,58	808	15,42	0,720
Total	22630	84,39	4187	15,61	

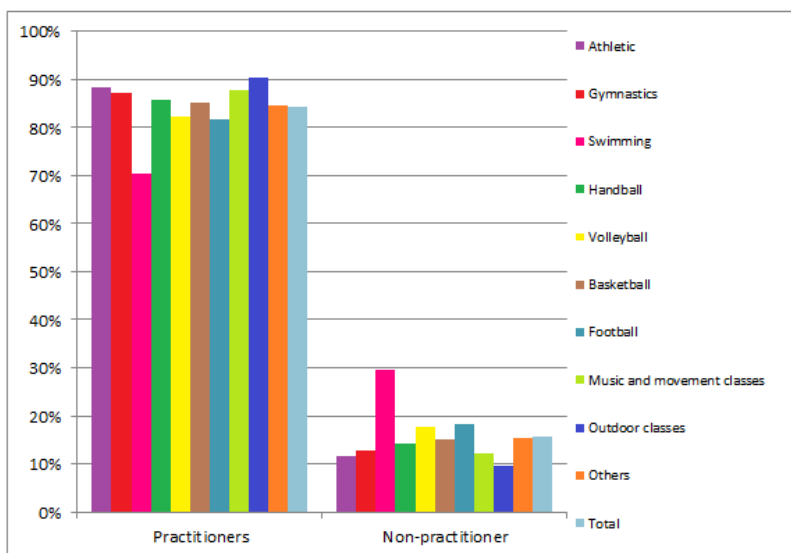


Figure 5. Observed classes depending on the type in all classes

In studies also analyzed the reasons for no participating actively in physical education classes given by the students. These were generally: forgotten outfit for exercise (53.93%) and exemption from parents (19.44%). (Table 6, Figure 6).

Table 6. Reasons for non-exercise on physical education classes

Reason	n	Percentage of non-exercisers
Forgotten exercise outfit	2258	53,93
Exemption from parents	814	19,44
Other reason	576	13,76
Sick leave, short (up to one week)	335	8,00
Sick leave other	204	4,87
Total	4187	100

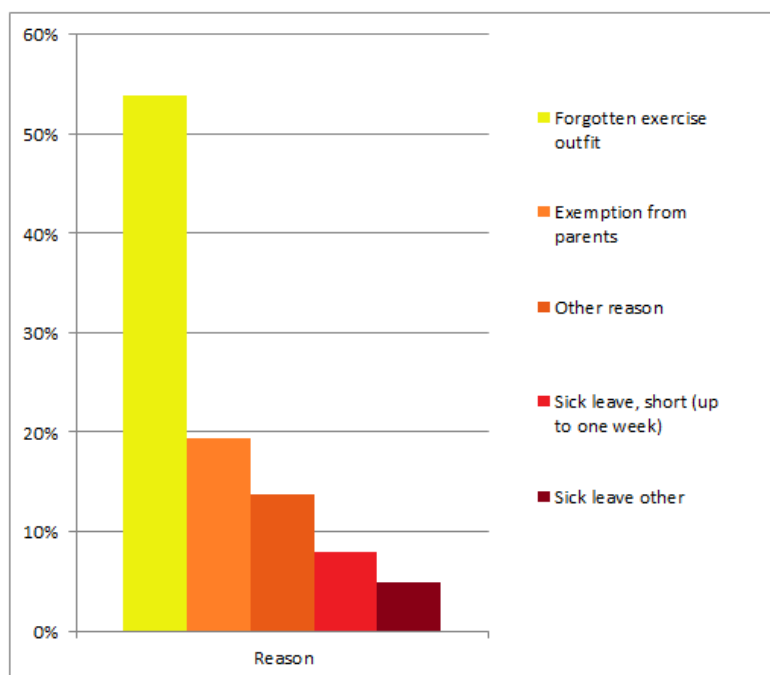


Figure 6. Reasons for non-exercise on physical education classes

In studies also examined the percentage of students with permanent sick leaves in relation to the number of all students enrolled in the log. Permanently sick leaves had 2,475 students, which represent 7.02%, of the entire study population. The biggest percentage of permanent sick leaves was the group girls (9.56%) (Table 7, Figure 7). Was also observed that the smallest percentage of permanent sick leaves falls among first class students (5.2%). Is interesting to note that this percentage increases with the next grade, and in fourth class is the highest (8.37%)(Table 8, Figure 8).

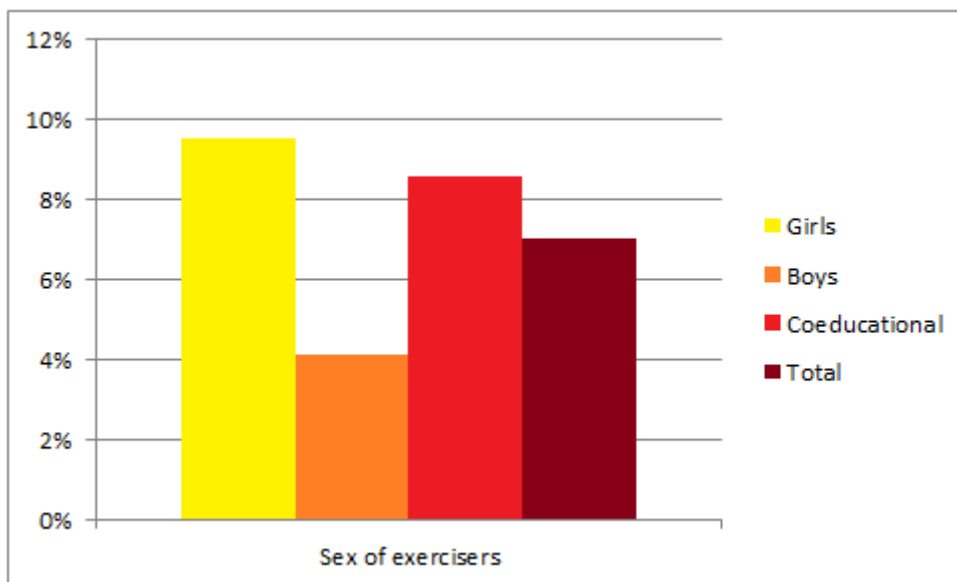


Figure 7. Permanent sick leave in relation to the number of children enrolled in the log depending on sex

Table 7. Permanent sick leave in relation to the number of children enrolled in the log depending on sex

Sex of exercisers	Number of permanent relief	Number of students according to the log	%
Girls	1454	15212	9,56
Boys	657	15827	4,15
Coeducational	364	4240	8,58
Total	2475	35279	7,02

Table 8. Permanent sick leave in relation to the number of children enrolled in the log, depending on the class

Class	Number of permanent sick leave	Number of students according to the log	%
1	575	11061	5,20
2	768	10114	7,59
3	737	9387	7,85
4	395	4717	8,37
Total	2475	35279	7,02

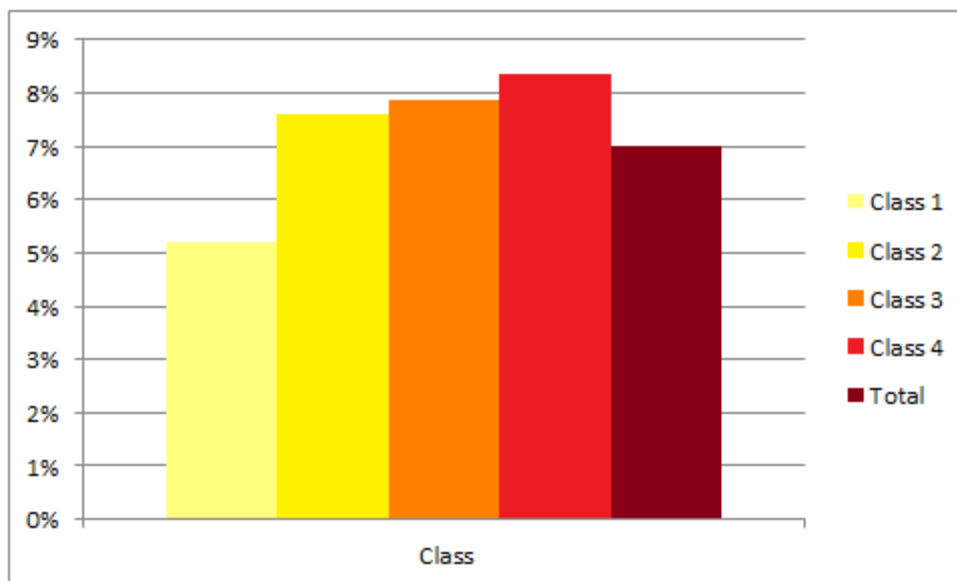


Figure 8. Permanent sick leave in relation to the number of children enrolled in the log, depending on the class

SUMMARY

According to the Basic Program of General Education "physical education play important educational, developmental and health functions. Support physical, mental and social development, and health of students and shapes habit of physical activity and concern about the health throughout life. Plays a leading role in health education of students. "Physical education in secondary schools should take place partly in interest groups, according to the choice made by a student. This should contribute to achieve the educational goals of this stage, such as preparation for participation in physical activity and protection and improving own health and others, in particular by, awareness of the need of physical activity throughout life. Therefore, the school provides the conditions for implementing specified in the basis program of specific requirements that should be treated as indicators of the development of personal disposal necessary to:

1. Participate in physical education during school as well as after its completion.
2. Initiating and co-organize physical activity.
3. Making a selection of forms of physical activity throughout life.

(Regulation of the Minister of National Education of 27 August 2012 on the basis of pre-school education program and general education in particular types of schools (Official Journal of 30 August 2012)

Presented research results indicate that part of secondary school students can not achieve those educational goals due to their absence in PE lessons. According to the information supplied by the physical education teachers from examined schools, 4% of boys and 8.5% girls were constantly dismissed from classes that promote physical activity, and additionally during the reference week non-exercisers were average of about 15%. This is slightly lower result than obtained interviewers Supreme Chamber of Control, who carried out one week observation in 10 randomly selected secondary schools and the phenomenon of non-exercise estimated at the level 21.8%. In a report of these studies have shown, however, much higher percentage of constantly non-exercisers, rated of 18.2% [14]. This significant diversification of results should be checked in further studies. There is a possibility of underreporting by the respondents, the number of actually non-exercisers, but also the reliability of the SCC test may raise doubts due to the small number of school. It is also difficult to refer this result to other studies, because, so far such not been carried out, and, in

the references mentioned in the introduction, used a different methodology and terminology. In addition, as demonstrated authors of the SCC report, the vast majority school principals of controlled schools (86%) were not analyzed in the framework of pedagogical supervision exercised, the issue of presence and active participation of students in physical education classes [14].

Comparing the results from previous years worrying is fact that the total number of students avoiding physical education increases year by year. As shown study J. Dobosz, D. Trzcińska [15] four main reasons of non-exercise on physical education classes in secondary schools are permanent sick leaves of physical education, truancy, injuries occurred during practicing sport and exemption from some forms of motor activity. For this purpose, has been tested 20,036 high school students. Unfortunately, the most frequent reasons, which constitute the highest percentage of non-practicing students in PE lessons are permanent sick leaves. In this group, the largest percentage of provide girls for as much as 10.13% (about 986 girls at 9,739), while the boys 5.64% (about 580 students at 10,297)

As pointed B. Zaustowska [13] examining the population of 827 students percent of all released students is undoubtedly higher because of the reluctance of females to exercise. In the school year 2006/07 still the highest percentage of non-practicing students in class of physical education are girls. At the 359 girls about 60 does not participate in physical education classes, which is 17%. Boys much less frequently avoid physical education because about 32 students at 468 which gives 7%. Unfortunately, as in the study carried out by J. Dobosz, D. Trzcińska the main reason for avoiding physical education are permanent sick leaves, which constitute as much as 69% of all exemptions. Undoubtedly, it is big problem considering the fact that for about 100 students who avoid PE lesson about 60 uses the permanent sick leave.

In studies, carried out in 2012, can be seen still continuing adverse relation of the number of non-practicing students to active participating in PE lessons. Research was carried out in 45 secondary schools in the province of Silesia during which examined 35,279 students. Similarly to previous years, the percentage of permanent sick leave was high and amounted 7.02% (2475 students). Larger part of this group are girls 9.56% (1454 of 15,212 girls). A smaller percentage are boys 4.15% (657 of 15,827 students). Also significantly is the percentage of non-practicing students in coeducational classes and amounted 8.58% (364 students of 4240). Unfortunately, as research shows, still the highest percentage of students who avoid PE lesson are girls.

The percentage of non-exercisers reported in our study, although significant, does not seem alarming in comparison with circulating opinion, about permanent mass exemptions from lessons and the general dislike of students, especially female high school students to move. The girls, as was to be expected, and according to other research [12, 13, 14, 16], are more often inactive than boys and this trend starts in elementary school [17].

Weekly number of PE lesson in Polish schools, although in comparison to other countries is significant [9, 18] does not satisfy the recommendation of optimal for health and proper development dose of physical activity. Research shows, however, that in the didacting-educational school program, commonly take into account extra-curricular recreational and sports activities [19]and the percentage of participants in such activities is steadily growing and amounts to 21% of the population of primary school students, 23.8% in junior high school and 21.6 % of secondary schools [20]. Significant influence on the volume of weekly physical activity of school students also have dynamically developing student sports clubs. Their number is constantly growing and now exceeds the number of traditional physical culture associations, they function in every fourth school [21].

A significant percentage of non-exercisers, are students who forgetting dress, what arouses astonishment, perhaps it is only a pretext from avoiding a movement.

The studies leads to the following conclusions:

1. In secondary schools the percentage of non-exercising students on PE lesson is "significant" to the number of students taking up on physical activity on classes. It amounts to about 6%, and it seems to be a real problem.
2. Gender, class and type of classes have an impact on the percentage of students who avoid PE lesson. A higher percentage of non-exercising students are girls. In the younger classes, this percentage is highest and in the older classes, this percentage decreases. Most of students avoid classes conducted at the swimming pool (about 30%), and most popular are taken outdoor PE classes.
3. The largest percentage of students who avoid PE lesson gives as the cause lack of outfit (54%) or an exemption from their parents (about 19%).

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