



SECONDARY SCHOOL STUDENTS' INTEREST IN VARIOUS FORMS OF PHYSICAL ACTIVITY

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ABSTRACT

Purpose. Students' interest in various forms of physical activity (individual and team sports) is known to differ depending on sex, place of residence, age, the time of year, and many other factors. The aim of the present study was to further analyze this issue on a group of secondary school students and to search for relationships between interest in different sports and sex, age and the school they attend. **Methods.** A standardized diagnostic questionnaire was administered to 475 first-, second-, and third-year students attending two randomly chosen secondary schools in Wrocław, Poland. **Results.** Significant differences in the interests of the analyzed group were found in regards to sex, age, and school. Girls were more interested in dancing, swimming, downhill skiing and hiking. Boys preferred team sports, swimming, downhill skiing, and martial arts. **Conclusions.** It seems advisable to identify and implement which physical activities secondary school students find most interesting in existing physical education curriculum so as to help develop positive attitude towards physical culture in later life.

Key words: interest, physical activity, secondary school student

Introduction

Secondary school is a time when students' biological development becomes quite advanced, when students have mastered basic motor skills, formed their own interests, hobbies, and value systems, and, in the case of girls, even show symptoms of motor 'aging'. Therefore, it seems necessary for schools to create additional exercise opportunities outside standard physical education (PE) curriculum so as to take into consideration not just students' health, physical fitness, and skill levels but also factors such as body build or individual preferences towards playing certain types of sports [1]. Many researchers have emphasized that physical education should focus on helping young adolescents view their own physical form and function positively by providing them with an environment that can foster healthy attitudes and behaviors [2].

Such a philosophy would undoubtedly require an entirely different sort of physical education teacher, one that has the ability to foresee a student's potential and future and not, as is so common today, have their work based entirely on short-sighted perceptions on meeting national physical education requirements. This would require a physical education teacher to rise above his/her current role and take into consideration other aspects than his/her students' physical training [3].

In modern terms, the essence of physical education, as an integral part of modern educational systems, is to shape students' personalities in terms of their axiological (in regards to their emotional-volitional sphere) and

technological competence (in regards to their intellectual-performance sphere). The goal is to prepare a student to take care of their body throughout their whole life by participating in physical culture [4]. Physical education should, at each of its stage, ingrain students with treating physical activity (PA) as a part of their daily lives and help them build a positive self-image of themselves by expanding their interests and attitudes. Most importantly, whether the physical activity they choose to do is done recreationally, by hiking, by playing competitive team sports, or by dancing, is immaterial. It is for this reason that schools need to offer a physical education curriculum that can fulfill the needs and interests of its students in the broadest sense possible [5].

Some authors believe that physical education classes, beginning from the fourth grade of elementary school and continuing through middle and secondary school, ought to be conducted as special-interest groups, where students choose the activity that best suits their interests and abilities [5]. The main goal of such a strategy would be to meet the physical education expectations of students by deepening their knowledge and skills in areas that are of interest as well as being accessible in terms of their physical fitness and skills [5]. This would require schools to analyze their students' interest in various forms of physical activity, decide how to meet their expectations and then provide them with PE that can help develop the habit of regularly practicing their chosen form of physical activity [6–8].

Studies on students' interest in PA have already been carried out as early as 1985–1986 by Strzyżewski and Górna [9], who surveyed 3,639 Polish male and female students (attending primary and secondary schools) by an anonymous questionnaire containing 36 questions

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on various aspects of physical education (opinions on PE, sports, and their PE teacher). Their results found that:

- 70–75% of students would like to have physical education classes that use a ball,
- students' attitudes towards physical education classes deteriorated with age (from the fifth grade until graduation),
- a relatively high percentage of students did not understand the purpose of exercise and why it is important in life.

Another study of interest was conducted in 1994 by Rokita [10] on a group of 768 pupils attending the 1st grade in a middle school in Lower Silesia, Poland. Interest in playing team sports (soccer, basketball, volleyball, or handball) was reported by 91% of the respondents, where 28% expressed a willingness to play at least one of the sports, 37% chose two of these sports; 19% chose three, and 7% chose all four [11].

Later, between 1995–2001, Rokita [10] studied the opinions of 1,963 students attending their first year of secondary school with the same questionnaire as before. During this seven-year period, female students expressed the most interest in playing volleyball (from 64% to 74%). Basketball was also quite popular, with over 50% of the respondents expressing interest in this sport throughout the analyzed period (from 56% to 66%), while the least popular were soccer (14% to 29%) and handball (16% to 31%). Among boys basketball was the most popular sport during this time period (from 66% to 84%), with soccer holding over a 60% interest (from 63% to 73%). The least popularly played sport was reported by the students to be tennis (from 26% to 35%) and handball (from 9% to 37%).

Although numerous studies on which forms of physical activity are popular among children and young adolescents have been conducted by many Polish [6–16] and European researchers [17–19], there nevertheless exists little current data on the interests of contemporary secondary school students. Furthermore, analysis of the available literature found significant variation in what forms of PA were popular depending on the students' sex, location, age, the time of year, and many other factors [6–19].

For example, the Supreme Audit Office in Poland carried out an assessment between 2007–2010 on 18,661 students attending PE [20]. The study found that students became more critical of how their PE classes were conducted over the years. The number of students who felt that their PE class was uninteresting rose from one in five students in primary school to one-quarter by middle school and finally to one-third of all students in secondary school. Furthermore, a study by Dobosz and Trzcińska in 1999 showed an increasing trend in student non-participation in PE primarily by using long-term medical excuses (averaged for all ages to be 10.6% for girls and 8.4% for boys). Some of the reasons for such high levels of dissatisfaction with PE classes were

uncovered by Malska-Śmiałowska and Kołodziej [22], where boys were primarily upset with the small number of team sports and generally poor conditions, while girls stated that they preferred different forms of PA.

Rokita [10], when studying what forms of physical activity students considered interesting, concluded that PE classes in secondary schools ought to consist of those activities that were the most popular, with the best option being the creation of special groups focused on a particular set of interests and open to all grades. Thorndike [23], in developing his theory of learning, found that if a response produces a feeling of satisfaction, it becomes associated with that activity and more likely to occur again if that situation should repeat itself in the future. As a result, there is a general belief that interest in an activity can grow if the teaching process and material is made 'attractive' [24].

A study on a group of more than four hundred Israeli children found interesting results when observing playground behavior. It was found that children prefer to play in groups and rarely exhibited individual behavioral tendencies. Furthermore, children playing in groups of more than five increased from 12% to 16% between 5 and 6 years of age. The size of the groups was found to continue to increase when school was in session in a sample of 9- to 12-year-olds and especially so for boys, which could explain the popularity of team sports such as soccer with this group. The nature of the groups was found to change when reaching the age of puberty [25].

Carlson [26] also showed that students' feelings during PE classes have a significant impact on creating positive or negative attitudes towards physical culture. This may be one of the reasons why certain boys and girls take part in extracurricular forms of physical activity and others do not [27].

Rokita [6] concluded that creating an objective (by taking into account students' interests) PE curriculum in middle and secondary schools is of urgent necessity, where there still remains a chance – by satisfying students' interest in physical activity – to instill a positive (or change a negative) attitude towards physical culture. There exists a high probability that if students were to participate in PE classes that cater to their personal interests, then they would be more likely to regularly participate in additional physical exercise after school and in later life [10].

Taking into account the results of the Supreme Audit Office's survey [20], the aim of this study was to determine what forms of physical activity are considered the most interesting among today's secondary school students. The objective aim of the study was to then use the results and modify and reorganize existing PE classes in the schools selected for analysis [28]. It was hypothesized that secondary school students' interest in various forms of physical activity would depend on sex, age, and the school they attended. In order to verify this hypothesis, a number of research questions were adopted:

1. Which forms of physical activity are secondary school students interested in?
2. Which forms of physical activity are boys and girls interested in and how do they differ?
3. Which forms of physical activity are students interested in and do they differ in terms of age (year of school)?
4. Which forms of physical activity are students interested in and do they differ in terms of which school they attend?
5. Does sex, age, or the school determine which forms of physical education secondary school students find interesting?

Material and methods

Two secondary schools from the city of Wrocław, Poland were randomly selected (Secondary School No. V and Secondary School No. XVII) from a pool of schools that initially provided their consent (from parents and the school director) as well as were available during the period when the study was to be conducted. All students without a semester or year-long medical excuse were recruited, which amounted to 475 students (262 girls and 213 boys) (Tab. 1) attending what are known as the first, second, and third years of secondary school. The study was conducted at the end of the first semester (January/February) in 2011 during the students' PE classes. The primary method for data collection was a standardized diagnostic survey, named "Interests in physical activity", that had been previously used to determine what forms of physical activity adolescents found interesting [12, 17]. Due to the scope of the study, only the answers from the questionnaire's fourth section were considered for analysis (consisting of questions on 'Sports' and 'Team Sports').

The students were familiarized with the questionnaire and provided either their own (if of legal age) or their parents' informed consent. The students were asked to provide their sex, age, grade and then rank which five individual sports they like to do out of a list of seventeen, as well as rank their five favorite team sports out of eleven. For both the individual and team sports sections the students were provided with an open-ended option and could indicate other forms of physical activity they found interesting [12, 17].

Table 1. Number of analyzed students

Sex	School						Total
	Secondary School No. V			Secondary School No. XVII			
	I	II	III	I	II	III	
Girls	55	27	27	1	86	66	262
Boys	31	6	24	40	44	68	213
Total	86	33	51	41	130	134	475

Pearson's chi-square test, at a significance level of $p < 0.05$, was used to verify the original hypothesis by finding the relationship between the various forms of physical activity chosen by the students in terms of their sex, age, or school.

Results

Interest in various forms of physical activity among secondary school students

Altogether, the students were most interested in swimming (29.3%), team sports (27.1%), dancing (22.7%), downhill skiing (22.3%), while the least interest was expressed in cross-country skiing (2%), foot orienteering (3%), rhythmic gymnastics (3.4%), and artistic gymnastics (3.8%)

Among girls, the most popular sports were dancing (19.9%) and swimming (15.6%). The least preference was given to foot orienteering (1.1%), bodybuilding (1.5%), cross-country skiing (1.5%) and artistic gymnastics (1.5%) (Fig. 1).

Among boys, the greatest interest was in team sports (20.7%), swimming (13.6%) and downhill skiing (13.1%) (Fig. 1).

Using Pearson's chi-square test at a significance level of $p < 0.05$, the original hypothesis was verified if interest in various forms of physical activity was influenced by age, sex, and school. The results found that sex had an impact on students choosing ten forms of physical activity (girls preferring to do aerobics, rhythmic gymnastics, hiking, dancing, figure and roller skating; boys preferring martial arts, motorsports, bodybuilding, and team sports). Based on the divergence of these results, further analysis was performed separately for the boys and girls. Pearson's chi-square test found that age had a statistically significant relationship in choosing three forms of physical activity (motorsports, aerobics, and dancing). Hence, further analysis also took into account the age of the students (i.e. which year they were attending school). Furthermore, which school the students attended also had an impact on five forms of physical activity (downhill skiing, bodybuilding, martial arts, sailing and windsurfing, and hiking), analysis was also broken down separately for both schools.

Interest in various forms of physical activity among students from Secondary School No. V

In this school, first-year girls rated swimming as the most popular (23.6%), followed by dancing (16.4%), and downhill skiing (16.4%). None of the respondents declared any interest in motorsports, kayaking and rowing, or foot orienteering (Fig. 2).

Among first-year boys, the most popularly ranked were downhill skiing (25.8%) and swimming (19.3%). None of the boys expressed any interest in motorsports,

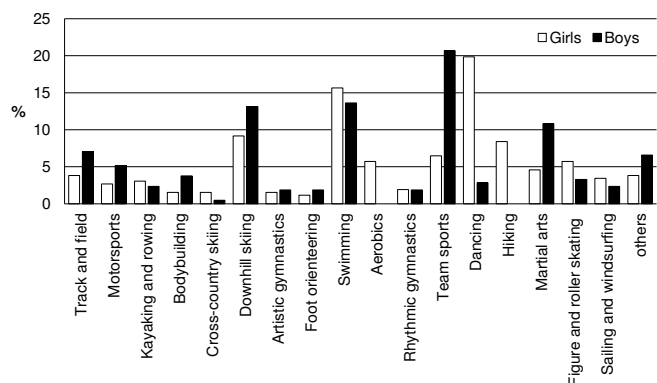


Figure 1. Interest in various forms of physical activity among students from Secondary Schools No. V and No. XVII

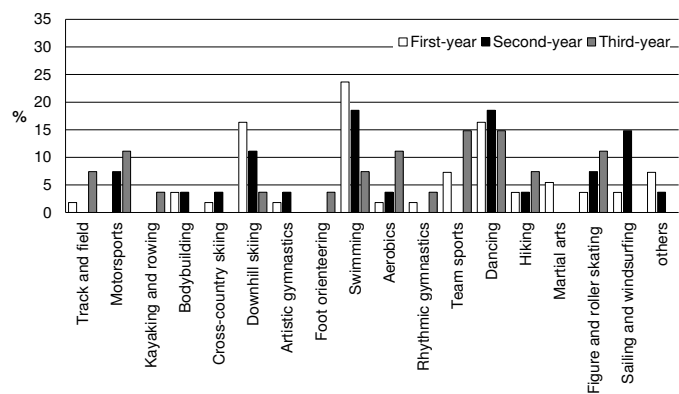


Figure 2. Interest in various forms of physical activity (girls from Secondary School No. V)

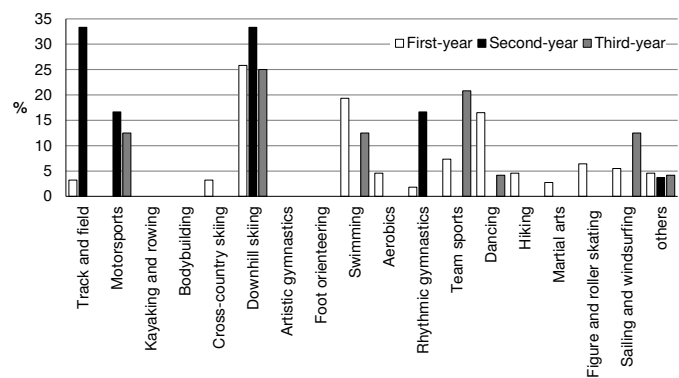


Figure 3. Interest in various forms of physical activity (boys from Secondary School No. V)

kayaking and rowing, bodybuilding, rhythmic gymnastics, or foot orienteering (Fig. 3).

Girls in their second year of secondary school were the most interested in swimming (18.5%) and dancing (18.5%). None of them chose track and field, kayaking and rowing, foot orienteering, artistic gymnastics, team sports, or martial arts (Fig. 2).

Boys in the same age group declared they were mostly interested in track and field (33.3%) and downhill skiing (33.3%). Surprisingly, none of them declared any interest in kayaking and rowing, bodybuilding, cross-

country skiing, rhythmic gymnastics, foot orienteering, swimming, aerobics, team sports, dancing, hiking, martial arts, figure and roller skating, or sailing and windsurfing (Fig. 3).

Girls in their third and final year of secondary school were interested in team sports (14.8%) and dancing (14.8%); none showed any interest in bodybuilding, cross-country skiing, rhythmic gymnastics, martial arts, or sailing and windsurfing (Fig. 2).

Boys in their third year showed the most interest in downhill skiing (25%) and team sports (20.8%). None of them expressed any interest in track and field, kayaking and rowing, bodybuilding, cross-country skiing, rhythmic gymnastics, foot orienteering, aerobics, artistic gymnastics, hiking, martial arts, or figure and roller skating (Fig. 3).

In this school (Secondary School No. V), it was found that girls expressed the most interest in dancing and swimming regardless of age, while the least popular were kayaking and rowing, bodybuilding, rhythmic and artistic gymnastics, and foot orienteering (Fig. 2). Among the boys attending this school, regardless of age, the most popular sport was downhill skiing. None of the boys expressed interest in kayaking and rowing, bodybuilding, rhythmic gymnastics, or foot orienteering (Fig. 3).

Interest in various forms of physical activity among students from Secondary School No. XVII

The results of girls in their first year of secondary school are not presented as only one participant agreed to participate in the study. Boys in this age group were the most interested in swimming (17.1%), figure and roller skating (14.6%), and martial arts (12.2%). None of the boys considered participating in track and field, cross-country skiing, foot orienteering, aerobics, or hiking (Fig. 5).

Among the girls attending their second year of secondary school, the most popular was swimming (16.3%) and dancing (16.3%) (Fig. 4). The least interest was expressed in rhythmic gymnastics (1.2%), foot orien-

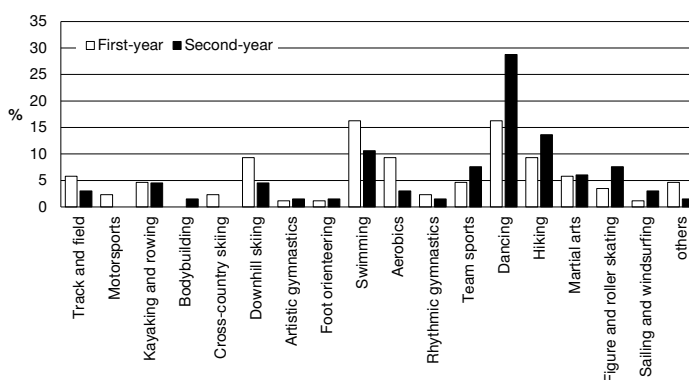


Figure 4. Interest in various forms of physical activity (girls from Secondary School No. XVII)

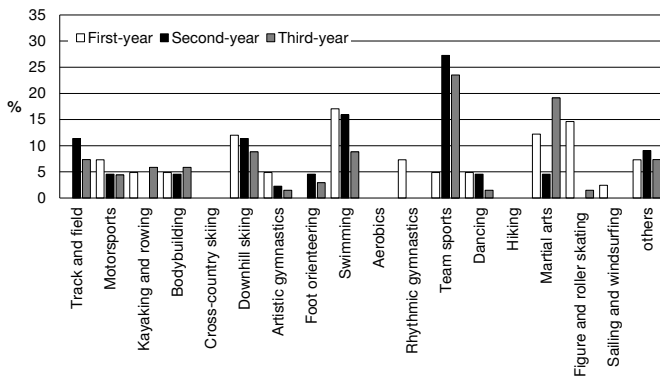


Figure 5. Interest in various forms of physical activity (boys from Secondary School No. XVII)

teering (1.2%), and sailing and windsurfing (1.2%). None of the girls expressed any interest in bodybuilding (Fig. 4).

Their male peers, on the other hand, were interested the most in team sports (27.3%) and swimming (16%) (Fig. 5), although none were interested in kayaking, cross-country skiing, aerobics, artistic gymnastics, hiking, figure and roller skating, or sailing and windsurfing (Fig. 5).

Third-year girls were the most interested in dancing (28.8%), although some considered hiking (13.6%) and swimming (10.6%). None of the girls were interested in motorsports and cross-country skiing (Fig. 4).

Boys attending their third year of secondary school were interested in team sports (23.5%) and martial arts (19.1%). On the other hand, none showed any interest in cross-country skiing, aerobics, hiking, or sailing and windsurfing (Fig. 5).

Among all the girls attending this school, the most interest was expressed in dancing, swimming, and hiking (Fig. 4). Among their male peers, regardless of age, the most popular were team sports and swimming. None of the boys wanted to attend PE classes focusing on cross-country skiing, aerobics, or hiking (Fig. 5).

Pearson's chi-square test was used again to verify the original hypothesis if interest in the various forms of physical activity depended on the school the students attended. It was found that the school the students attended had a statistically significant relationship in choosing three forms of physical activity (downhill skiing in Secondary School No. V and bodybuilding and martial arts in No. XVII) among boys and two forms of sports (sailing and windsurfing in No. V and hiking in No. XVII) among girls. On the basis of these results, additional analysis was performed on the students' interests from both schools by taking into consideration both sex and age.

Interest in various forms of physical activity among second-year girls

No analysis was performed on what interests girls in their first year of secondary school had, as only one

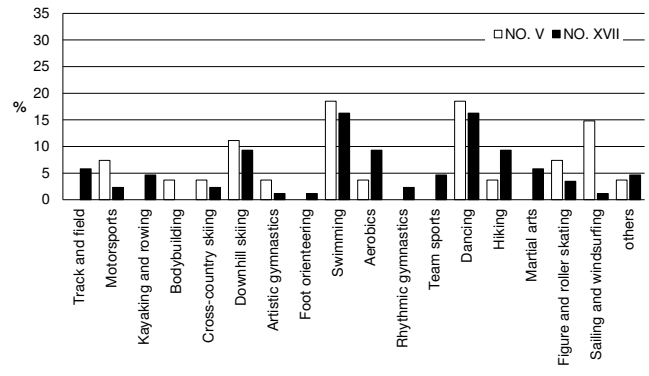


Figure 6. Interest in various forms of physical activity (second-year girls from Secondary Schools No. V and No. XVII)

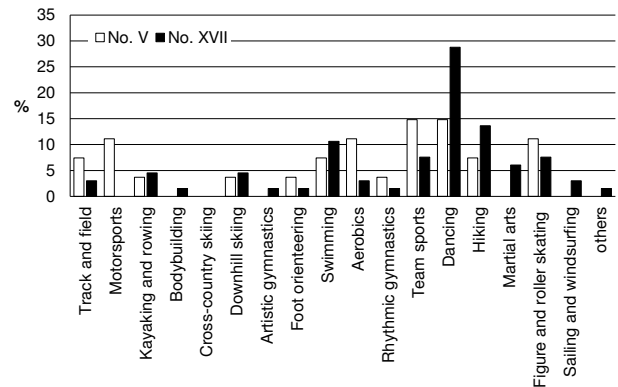


Figure 7. Interest in various forms of physical activity (third-year girls from Secondary Schools No. V and No. XVII)

girl from Secondary School No. XVII participated in the study.

Girls from both schools in their second year were the most interested in swimming and dancing (Fig. 6).

Interest in various forms of physical activity among third-year girls

Among third-year girls in No. V, the most interest was declared in playing team sports and dancing. Their peers from No. XVII preferred only dancing. However, they did express considerable interest in hiking and swimming (Fig. 7). Regardless of which school the girls attended, the most popular activity was swimming and dancing (Fig. 6, 7).

Interest in various forms of physical activity among first-year boys

Boys in their first year at No. V expressed the most interest in downhill skiing, swimming, and dancing. Their peers from No. XVII also chose swimming but also included figure and roller skating and martial arts (Fig. 8).

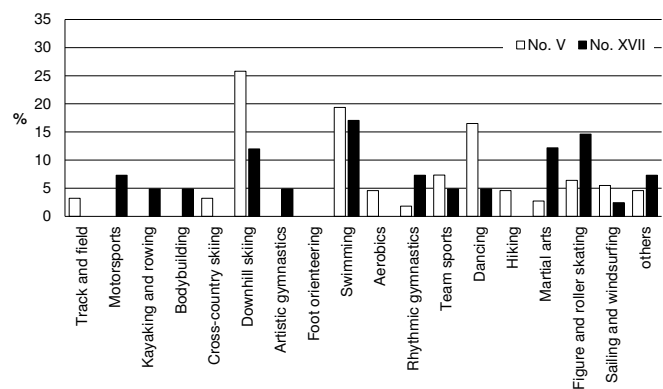


Figure 8. Interest in various forms of physical activity (first-year boys from Secondary Schools No. V and No. XVII)

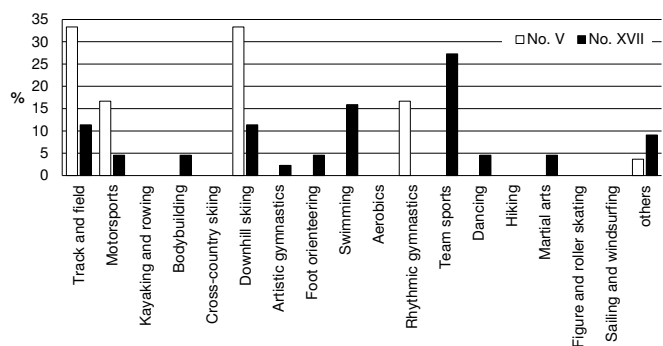


Figure 9. Interest in various forms of physical activity (second-year boys from Secondary Schools No. V and No. XVII)

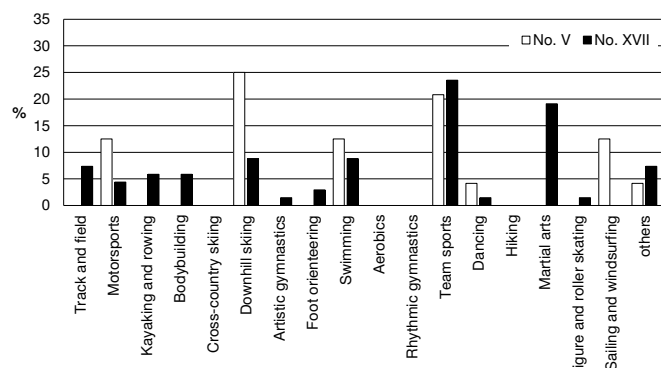


Figure 10. Interest in various forms of physical activity (third-year boys from Secondary Schools No. V and No. XVII)

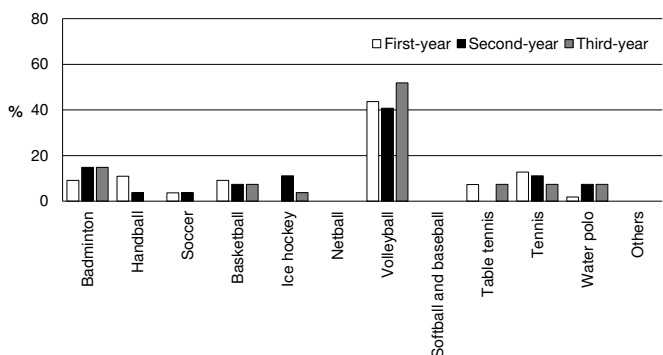


Figure 11. Interest in team sports among girls from Secondary School No. V

Interest in various forms of physical activity among second-year boys

Boys from Secondary School No. V expressed the most interest in track and field and downhill skiing. Their peers from Secondary School No. XVII expressed more interest in team sports and swimming (Fig. 9).

Interest in various forms of physical activity among third-year boys

The boys in the last year at Secondary School No. V were the most interested in downhill skiing and team sports. Boys from No. XVII preferred team sports and martial arts (Fig. 10).

The group of analyzed boys, regardless of which school they attended, expressed the most interest in downhill skiing, team sports, and swimming (Fig. 8–10).

As playing team sports garnered a considerable amount of interest among the analyzed students, further analysis was conducted on which team sports were the most popular.

Interest in team sports among all of the analyzed secondary school students

Pearson's chi-square test was used again to verify if interest in team sports differed by sex, age, and the school the students attended. It was found that sex had a statistically significant influence in choosing six team sports (badminton, handball, soccer, volleyball, tennis, and water polo), but had no effect on the remaining five choices. Based on the divergence of these results, further analysis was performed separately for boys and girls. The results of Pearson's chi-square test also showed that age had a statistically significant relationship on three of the sports among girls (volleyball, tennis, and baseball and softball) and also on three of the sports among boys (soccer, basketball, and table tennis). The school the children attended had an impact on choosing two of the team sports (tennis and volleyball) among girls and had no effect when selecting a team sport among the group of boys.

Interest in team sports among girls from Secondary School No. V

Pearson's chi-square test was used to verify the relationship between interest in team sports and the sex of students attending Secondary School No. V.

Here, it was found that sex demonstrated a significant relationship with playing four team sports (badminton, soccer, volleyball, and table tennis).

Among girls in their first, second, and third years in this school, the largest interest was expressed in volleyball (from 40.7% to 51.8%) (Fig. 11). However, none of the girls expressed any interest in netball, softball, or baseball.

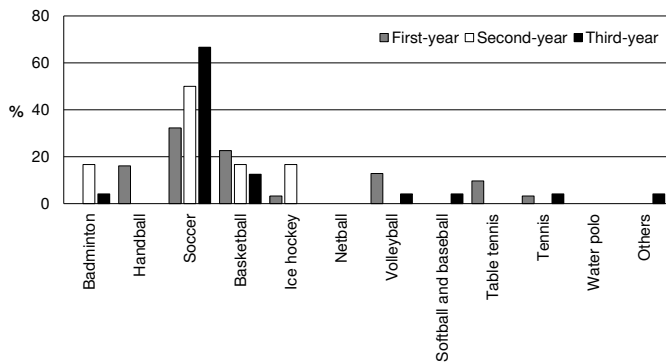


Figure 12. Interest in team sports among boys from Secondary School No. V

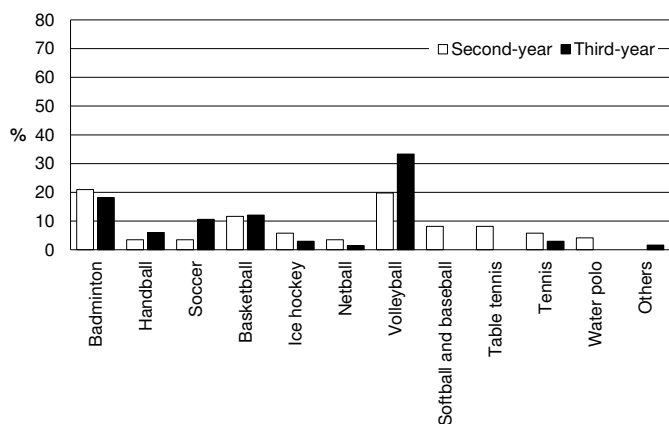


Figure 13. Interest in team sports among girls from Secondary School No. XVII

Girls in their first year of secondary school were the most interested in tennis (12.7%) and handball (10.9%). Those in their second year chose badminton (14.8%), ice hockey (11.1%) and tennis (11.1%) while those in their third year declared badminton (14.8%) to be the most interesting (Fig. 8).

Regardless of what year they were in, the most interesting team sports for girls from Secondary School No. V were volleyball, badminton, and tennis.

Interest in team sports among boys from Secondary School No. V

The most interest by boys in their first, second, and third years of secondary school was in playing soccer (from 32.3% to 66.7%) (Fig. 12). No interest was expressed in playing netball or water polo.

First-year boys were the most interested in basketball (22.6%) and handball (16.1%). None were interested in playing badminton, netball, softball and baseball, or water polo (Fig. 12).

Second-year boys chose soccer, badminton (16.7%), basketball (16.7%), and ice hockey (16.7%). No one expressed any interest in playing handball, netball, volleyball, baseball, table tennis, tennis, or water polo (Fig. 12).

Boys in their third year were the most interested in basketball (12.5%); no interest was expressed in hand-

ball, netball, ice hockey, table tennis, or water polo (Fig. 12).

Altogether, regardless of age, the most interesting team sport for boys from Secondary School No. V was soccer, although basketball was also of interest. No one rated having any interest in playing netball or water polo.

Interest in team sports among girls from Secondary School No. XVII

Pearson's chi-square test was used to verify the relationship between interest in team sports and the sex of students attending Secondary School No. XVII. Age was found to have a statistically significant correlation on three of the team sports chosen by the students (badminton, soccer, and water polo).

Among first-, second-, and third-year girls, the most interest was expressed in playing volleyball (from 19.8% to 33.3%) and badminton (from 18.2% to 21%) (Fig. 13). The least interesting for the girls was netball, ice hockey, and water polo.

Based upon the entire sample of girls attending Secondary School No. XVII, it was found that the most interest was expressed in volleyball and badminton. The least interesting was netball and water polo.

Interest in team sports among boys from Secondary School No. XVII

The most interesting team sport for first-, second- and third-year boys in this school was soccer (from 17.1% to 47.7%). No one was interested in playing netball or softball and baseball (Fig. 14).

First-year boys were the most interested in volleyball (22%) and, as was mentioned, soccer (17.1%). However, second-year boys expressed more interest in playing soccer (47.7%). Third-year boys expressed greater interest in playing soccer (33.8%) and basketball (19.1%) than the other sports (Fig. 14).

Altogether, regardless of which year the boy was in school, the most interesting for all boys attending Secondary School No. XVII was soccer, with volleyball and basketball next in popularity.

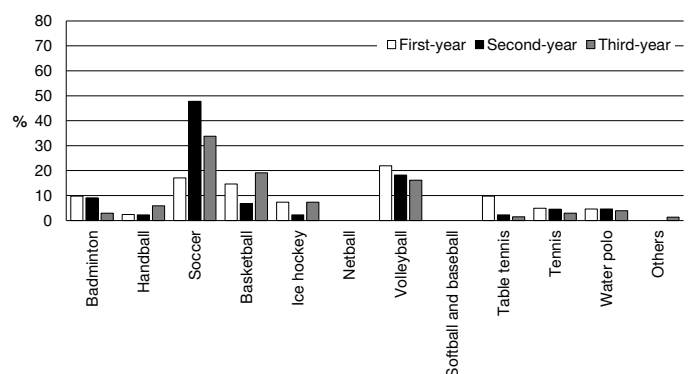


Figure 14. Interest in team sports among boys from Secondary School No. XVII

Discussion

The results of the present study revealed significant differences among the interests of secondary school students. Their preference in which physical activity they would prefer to play the most was found to be influenced by their sex, age, and the school they attended. Overall, girls expressed the most interest in dancing, swimming, downhill skiing, and hiking. Boys, on the other hand, preferred playing team sports and doing swimming, downhill skiing, and martial arts.

Among first-year students, the most popular were downhill skiing, swimming, dancing, figure and roller skating, and martial arts. Their one-year-older peers preferred swimming, dancing, team sports, and track and field. Third-year students ranked downhill skiing, dancing, team sports, and martial arts as the most interesting.

The boys and girls attending Secondary School No. V were the most interested in downhill skiing, dancing, team sports, and swimming. Their peers from Secondary School No. XVII were more interested in swimming, dancing, team sports, and martial arts.

Similar results were obtained by Bartoszewicz and Frömel [16]. In their study, they found girls expressed the most interest in swimming, dancing, and team sports. However, among boys, the most popular were team sports, then swimming, and then motorsports. Frömel et al. found slightly different results [17]. In their 1995 study, girls were more interested in team sports than swimming and figure and roller skating, while boys were the more interested in bodybuilding, swimming, and downhill skiing.

One possible reason why girls are so interested in dancing and swimming may stem from these activities' utilitarian values. Interest in dancing may have also risen in recent years due to its popularity in media (e.g. programs such as *Dancing with the Stars*, *You Can Dance*, *I've Got Talent!*) and the increase in the number of dance schools that allow individuals to learn different styles of dance regardless of their skill level.

For team sports, the results of the present study found that the girls expressed the most interest in playing volleyball and badminton, while boys preferred soccer and basketball. Górna [13] found somewhat similar results, with volleyball being the most popular team sport among girls. Boys, on the other hand, were far more interested in playing basketball, soccer, and volleyball. It appears that the large amount of interest in playing team sports (especially volleyball and soccer) may also be due to its popularity in media (especially with tournaments such as the World League, Champions League, and Europa League) and the success of local sports teams (in this case the local volleyball and soccer teams in Wrocław). The children may have also been influenced by the hosting of various sporting

events within their city, which could have contributed to the growing popularity of these sports.

However, Górna's study [13] found that gymnastics was the third most popular form of physical activity among girls. Bartoszewicz and Frömel [16] also showed congruent results in terms of the least popular sports among girls, stating that bodybuilding and cross-country skiing were of no interest. For boys, these were cross-country skiing, rhythmic gymnastics, and aerobics. However, the results of Frömel et al. [17] showed that the least preferred sports among girls were motorsports, kayaking and rowing, and foot orienteering, while boys showed the least interest in aerobics and rhythmic and artistic gymnastics.

It is believed that the lack of interest in gymnastics and foot orienteering may be the result of students being entirely unfamiliar in what is involved in these forms of physical activity. A lack of knowledge on the techniques and rules used in these sports may have had a decisive impact on the rather marginal popularity of these sports among the analyzed secondary school students.

One of the reasons for the slight discrepancies in the results of this study and those of Bartoszewicz and Frömel [16], Frömel et al. [17] and Górna [13] could be due to where and when research was conducted. Rokita [7] believed that the time of year has a significant impact on the selection of various forms of physical activity (soccer and tennis among girls; basketball, volleyball, handball, and table tennis among boys). However, they stated this was not the case with swimming, its popularity was confirmed regardless of the study environment or time of year.

Conclusions

It is evident that secondary schools need to consider what forms of physical activity their students find interesting and do their utmost to further develop and foster these interests by creating, at the minimum, activity-specific PE classes open to all grade levels. This could hopefully reduce the amount of falsified medical absences excusing students from taking part in any form of physical activity during school as well as encourage them to take up exercise after school.

It is felt that if physical education classes are able to meet their students' interests, then it may be highly likely that they will maintain a positive attitude towards physical culture in later life.

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