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DETERMINANTS OF PARTICIPATION AND NON-PARTICIPATION IN PHYSICAL EDUCATION CLASSES OF SECONDARY SCHOOL STUDENTS

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Uwarunkowania uczestnictwa i nieuczestnictwa w lekcjach wychowania fizycznego młodzieży szkół średnich

Streszczenie

Celem badań było poznanie opinii uczniów szkół średnich w Białej Podlaskiej na temat lekcji wychowania fizycznego. Postanowiono sprawdzić, na ile zajęcia te spełniają oczekiwania młodzieży i czy stanowią zachętę do podejmowania aktywności ruchowej w czasie wolnym. W badaniach zastosowano metodę sondażu diagnostycznego z wykorzystaniem techniki ankietowej składającej się z 23 pytań. W ten sposób zebrano 383 odpowiedzi.

Badania wykazały, że systematycznie w lekcjach wychowania fizycznego uczestniczy jedynie 32% uczniów. Dla 36% badanych najczęstszym powodem nieuczestnictwa w lekcjach wychowania fizycznego jest brak chęci i motywacji. Uczniowie w 73% ocenili, iż warunki sprzyjające aktywności fizycznej w ich szkole są na poziomie dobrym lub bardzo dobrym; 85% uczniów podejmuje aktywność ruchową w czasie wolnym. Wyniki badań wskazują, że uczniowie zwracają uwagę na zbyt małą różnorodność form aktywności ruchowej podczas lekcji wychowania fizycznego. Z badań wynika, że przyczyną braku chęci aktywnego udziału w lekcjach wychowania fizycznego może być niedostosowanie form aktywności ruchowej do zainteresowań uczniów. Istnieje dalsza potrzeba

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diagnozy tego zjawiska w celu lepszego dostosowania programów tak, aby zaspokajać potrzeby zarówno najbardziej aktywnych uczniów, jak i tych, którzy rzadziej angażują się w ćwiczenia.

Słowa kluczowe: wychowanie fizyczne, opinie uczniów, oczekiwania.

Abstract

The aim of the research is to explore the opinions of students from secondary schools in Biała Podlaska on the subject matter of Physical Education classes. The authors decided to check to what extent these classes meet the students' expectations and whether they constitute any encouragement to undertake physical activity in their free time. The study used a diagnostic survey method with a questionnaire consisting of 23 questions. In this way, 383 responses were collected.

The research showed that only 32% of the students participate in PE lessons systematically. For 36% of the respondents, the most frequent reason for skipping PE lessons is lack of desire and motivation. 73% of the students rated the conditions for physical activity at their school as good or very good. 85% of the students undertake physical activity in their free time. The research results point to the fact that the students emphasise too little variety in physical activities offered during PE classes. The research shows that the reason for the lack of willingness to actively participate in Physical Education classes may be the mismatch between the forms of physical activity and the interests of students. There is a further need to diagnose this phenomenon in order to adjust PE curricula so that both more and less active students' needs are addressed.

Keywords: physical education, students' opinions, expectations.

Introduction

Physical activity of children and teenagers depends on many factors, including the attitudes of parents and educators. A growing unwillingness of the young generation to spend time actively, reflected in their non-participation in Physical Education lessons should cause the concern of the environments responsible for their upbringing. As the report of the Institute of Mother and Child shows, teenage activity decreases with their age. Teenagers from secondary schools or technical secondary schools are the least active ones (Fijałkowska, ed., 2018). The issue is also noticed by Jastrzębska, who, by the analysis of research conducted in Polish schools, states that teenagers are participating in obligatory Physical Education classes less and less frequently (Jastrzębska, 2022). Tomecka emphasises that in recent years, there has been a significant increase in the number of students exempt from participating in PE classes. Among the subjective reasons there is the reluctance of children and young people to participate in such lessons (Tomecka, 2021). As the research conducted by Wasiluk et al. (2023) on a large group of students from the provinces of Podlasie, Lublin and Podkarpacie in the years 2006–2021 shows, the frequency of the occurrence of both underweight children and those with normal BMI has decreased, while there are more young people who are overweight and obese. Children are becoming more and

more passive, and with their parents' approval, they do not participate in PE lessons. It is reported that in Poland about 30% of children skip their PE classes (Wojnarowska et al., 2015). As Lizak (2014) reports, despite better and better infrastructure, the students' absenteeism at their PE lessons is still very high. In older grades of primary school about 15% of students do not exercise, and in mid-secondary and secondary schools, this percentage reaches even 30%. As the main reasons for skipping classes, the students mentioned health issues (35%) and an unattractive way of running PE lessons. The research by Madejski revealed a very concerning phenomenon, i.e. as many as 40% of girls and boys would not like to participate in PE lessons in the future if they were similar to those run by their teachers (Madejski et al., 2021). On the other hand, the change concerns parents and grandparents who are becoming more and more active, which is reflected in their numerous participation in long-distance runs, Nordic Walking races and other sports disciplines (Ossowski & Litwiniuk, 2014). Nowadays, it is often grandparents and parents who take up some physical activity. Therefore, it should be hoped that parents' style of living should also be an example for their children. One should also think where the correct principles of educating the younger generation to be physically active have been lost. Changing these behaviours should be a challenge both for educators and parents.

Despite a significant number of studies that explored students' physical activity, it is also stated that research on teenage groups is necessary yet insufficient, and its results are inconclusive (Tassitano et al. 2007). This confirms the need for more research of this kind in order to better identify the factors that are important in promoting physical activity among students.

Therefore, there is a need to look for activity models that will contribute to changing these negative trends. Physical activity habits that we acquire through our family and various institutions, such as school, are also important (Bodasińska & Piech, 2021, Zaremba et al., 2022). If these habits are permanent, they allow us to remain active during such difficult times as the COVID 19 pandemic (Piech et al., 2022). It is confirmed by earlier research which proves that the level of physical activity in the developmental phase of ones' life has a positive impact on the quality of life in old age (Marchewka et al., 2008).

Nowadays, it is difficult to convince young people to perform physical activity systematically, and it concerns especially those whose parents have not passed on appropriate role models. We are also aware of the fact that the current (post-pandemic) situation has further reinforced these undesirable behaviours. Lack of any activity during the pandemic may have a negative influence in the future (Piechota, 2021).

The main objective of the study is to analyse the opinions of secondary students in Biała Podlaska on physical education classes. Moreover, undertaken research and analyses should help to establish whether there are any factors de-

riving from displayed behaviours, motivation and expectations that could contribute to the growth of interest in Physical Education classes at school. These opinions may be useful in developing models of physical activity for various groups of children and teenagers attending school.

Research material

The research was conducted among secondary school students from the province of Lublin in May 2024. The sample counted 383 persons, including 218 girls (56.92%) and 165 boys (43.08%). There were 99 first-graders (25.85%), 111 second-graders (28.98%), 81 third-graders (21.15%), 81 fourth-graders (21.15%) and 11 fifth-graders (2,87%). The criterion for inclusion in the study was attendance at secondary school, while individuals with health limitations preventing them from participating in PE classes were excluded from the study.

Research method

The research used a diagnostic survey method with a questionnaire on the Microsoft Forms platform consisting of 23 questions. The questionnaire was conducted online with the principals' permission among the students of three secondary schools in Biała Podlaska. The participation in the research was voluntary. The authors collected 383 completed questionnaires consisting of questions concerning, among all, the assessment of students' own physical fitness levels, the frequency of exercising during PE classes, the reasons for which they happen not to exercise during PE classes, the extent to which PE lessons meet their need for physical activity, their attitude towards the current number of PE hours, the activities that occur most frequently during the lessons and expectations linked with them, and physical activity undertaken in the students' free time. Before the commencement of the research, the students were informed about its objective as well as their voluntary and anonymous participation in the research. It took about 10 minutes to complete the questionnaire. Next, the collected data were coded and underwent statistical analysis. The chi-square test was used to assess the relationships, and the strength of the relationship was determined using Cramer's V coefficient. A significance level of $p<0.05$ was adopted.

Results

The analysis showed that there is a statistically relevant correlation between the assessment of students' own physical fitness levels (on a scale: very good,

good, satisfactory, poor) and declared frequency of exercising (on a scale: very often, often, rarely, I don't exercise) during PE classes ($\chi^2(9)=61.07$, $p<0.01$). It means that persons who assess their physical fitness levels more positively exercise more often during PE classes. On the other hand, persons with low self-esteem concerning their physical fitness levels avoid school physical activity more often. The correlation is moderate (Cramer's V=0.23), which suggests that the frequency of exercising may be dependent on other factors. The analysis taking into account the students' sex showed that the revealed correlation concerns both sexes, occurring both in the boys ($\chi^2(9)=23.92$, $p<0.01$, Cramer's V=0.22) and the girls ($\chi^2(9)=37.15$, $p<0.01$, Cramer's V=0.24).

There are no significant differences between the reasons given by the boys and the girls for not participating in PE classes ($\chi2(5)=5.98$, $p=0.31$). The most frequent reason given by the students is lack of desire/ motivation. This reason is more often chosen by the girls than the boys. On the other hand, the boys more often explained their lack of participation by lack of sports outfit and sick leaves. A similar percentage of the studied girls and boys (about 8.5%) stated that if they do not exercise, it is due to feeling unwell or injury, and about 4.5% of the sample pointed to parental excuse (Table 1).

Table 1
Reasons for non-participation in PE classes

Reasons	Girls		Boys	
	n	%	n	%
Lack of sports outfit	49	22.48	41	24.85
Lack of desire/ motivation	82	37.61	51	30.91
Sick leave	36	16.51	40	24.24
Feeling unwell / injury	19	8.72	14	8.48
Parental excuse	9	4.13	8	4.85
Other	23	10.55	11	6.67

The research showed that the willingness to participate in PE lessons, if these lessons were voluntary, depends on the current frequency of participation in classes. A statistically significant correlation occurred in the group of boys ($\chi^2(6)=59.05$, $p<0.01$, Cramer's V=0.42) and the group of girls ($\chi^2(6)=59.91$, $p<0.01$, Cramer's V =0.37). It suggests that there is a significant difference between various frequency levels of participation in PE classes and voluntary participation. The strength of the correlation points to the occurrence of a moderate correlation between the frequency of the students' participation in obligatory PE classes, and their declaration of participation in such lessons were they voluntary. These studies show that the more frequently the students participate

in PE classes, the more frequently they declare they would also participate in such lessons were they facultative.

The frequency of the students' participation in PE classes, excluding those who responded they do not exercise, was compared with the opinion on the extent to which PE lessons satisfy their physical activity needs. It turned out there is a statistically strong basis for concluding that the differences in the distribution of these variables both among the boys ($\chi^2(4)=3.49$, $p<0.01$, Cramer's $V=0.21$) and among the girls ($\chi^2(4)=16.88$, $p<0.01$, Cramer's $V=0.21$) are significant.

Among the students exercising during PE classes, 25.58% of the girls and 23.08% of the boys claimed that these lessons fully satisfy their need for physical activity. However, 39.53% of the girls and 25.64% of the boys from that group stated that PE classes are not enough to satisfy their need for physical activity. The results also revealed that among the charges that rarely exercise during PE lessons, as many as 65.22% of the boys and 70.21% of the girls stated that PE lessons do not satisfy their need for physical activity. On the other hand, only 6.38% of the girls and 13.04% of the boys, who rarely exercise during PE lessons acknowledge that PE lessons fully satisfy their need for physical activity.

The analysis of the extent to which PE lessons encourage students to undertake physical activity in their free time did not show any significant differences between the boys and the girls. The biggest percentage of the charges think that PE lessons do not encourage them to undertake physical activity in their free time, and the smallest group thinks they do to a large extent. A higher percentage of the boys than the girls points to a big and moderate impact of PE lessons on their physical activity in their free time, while a lower percentage points to a small impact or they think that PE lessons do not encourage them to undertake any extracurricular physical activity at all (Chart 1).

Indeed, the boys more often than the girls think that the number of PE lessons is not sufficient ($\chi^2(1)=29.42$, $p<0.010$), while the girls think there are too many of them ($\chi^2(1)=41.60$, $p<0.01$). On the other hand, there are no significant differences as for the answer pointing to "a satisfying number of PE lessons", as it was picked by 44.04% of the girls and 44.85% of the boys.

We obtain interesting data from the comparison of the answers to two questions concerning the frequency of the occurrence of various physical activities during PE lessons, and the students' preferences in this area. The respondents assessed how often particular activity forms are used in PE lessons, and they also showed which of them meet their expectations and should be used at school more often. Chart 2 presents the comparison of the data obtained.

The chart consists of two elements: the columns representing the frequency of the occurrence of particular physical activities, and the line (black) which illustrates the students' expectations. The columns are divided into colours, which mark different frequency levels (almost always, often, sometimes, sel-

dom, never), while the line shows the number of students who would like to experience a given activity during PE lessons more often.

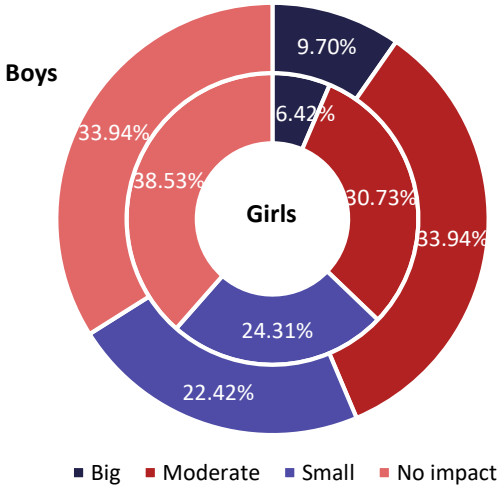

Chart 1
Impact of PE classes in school on undertaking physical activity in one's free time

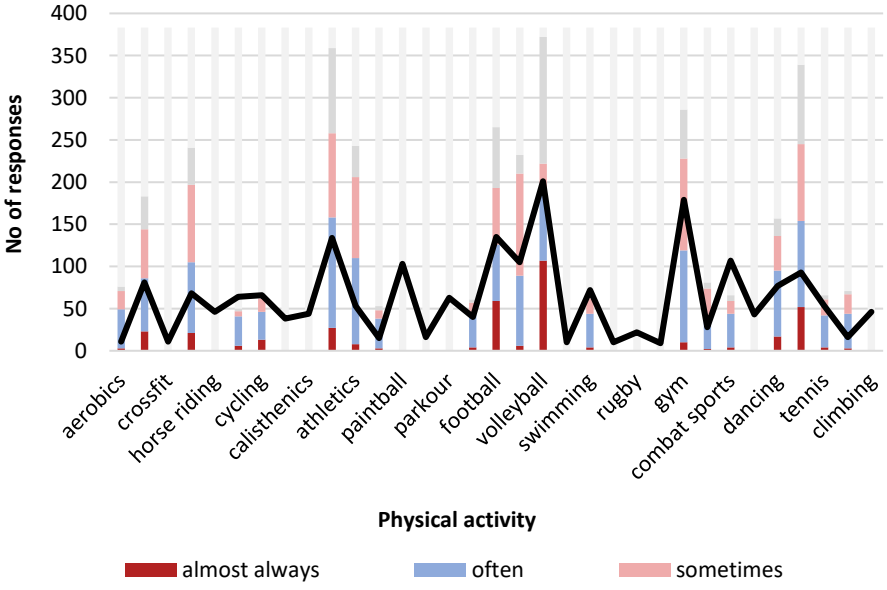

Chart 2
The frequency of occurring selected physical activities during PE classes and students' expectations and preferences

Significant differences between the frequency of occurrence and the students' preferences are noticed in such activities as gymnastics, athletics or table tennis, which, despite their regular presence during PE lessons, are much less popular with the students.

In case of activities such as rollerskating, cycling, calisthenics, paintball, parkour, combat sports, squash or climbing, the students express their desire of participating in these forms of physical activity much more often than they are realised at school.

On the other hand, activities such as basketball, volleyball, football, handball and gym workout are often used during PE classes, enjoying a big interest among the students. It shows that team sports and gym workout satisfy the students' needs and contribute to their engagement in physical activity.

Within the framework of the research, the respondents had an opportunity to answer an open question regarding the changes they would like to introduce in PE classes. The analysis of the collected responses offers an important insight into the areas of PE lessons at school, which, according to the students' expectations, need improving.

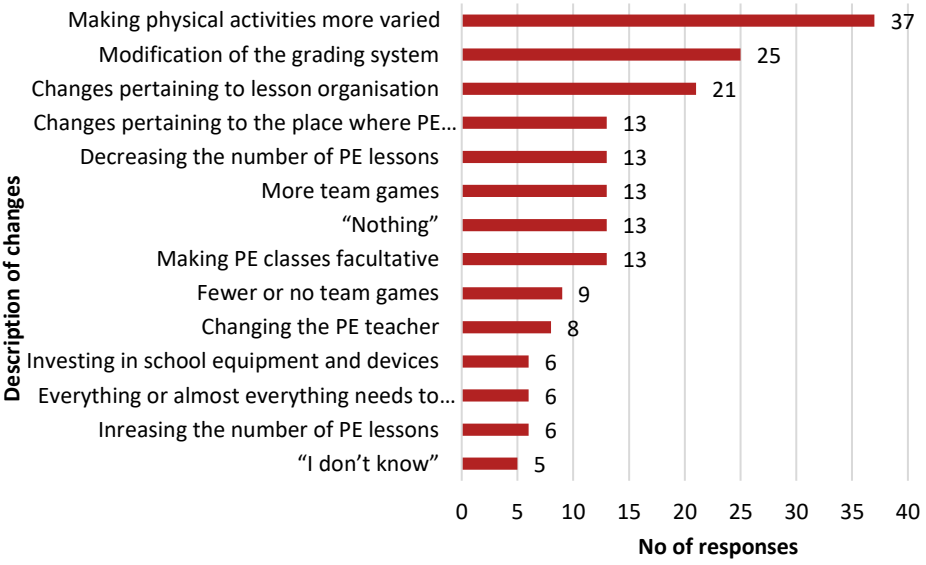

Chart 3
Thematically grouped students' responses to an open question what they would like to change in Physical Education lessons, excluding irrelevant responses

The change postulated most often (37 respondents) is making physical activities more varied and adapting them to the interests and aptitudes of the participants. The next most frequent suggestion (25 respondents) is the modifica-

tion of the grading system, including the suggestion regarding the change of the number and scope of credits as well as an individual approach to students while evaluating their fitness and engagement in PE lessons. A significant number of the respondents (21 persons) pointed to the need of change in lesson organisation, pertaining to its various aspects, beginning with they way and form of running PE lessons and ending with the teacher's approach and their attitude towards students.

Further on, 13 respondents also mentioned the aspects regarding the choice of place for PE classes (e.g. no merge with other groups of students), decreasing the number of PE lessons, increasing the number of team games or making PE lessons facultative.

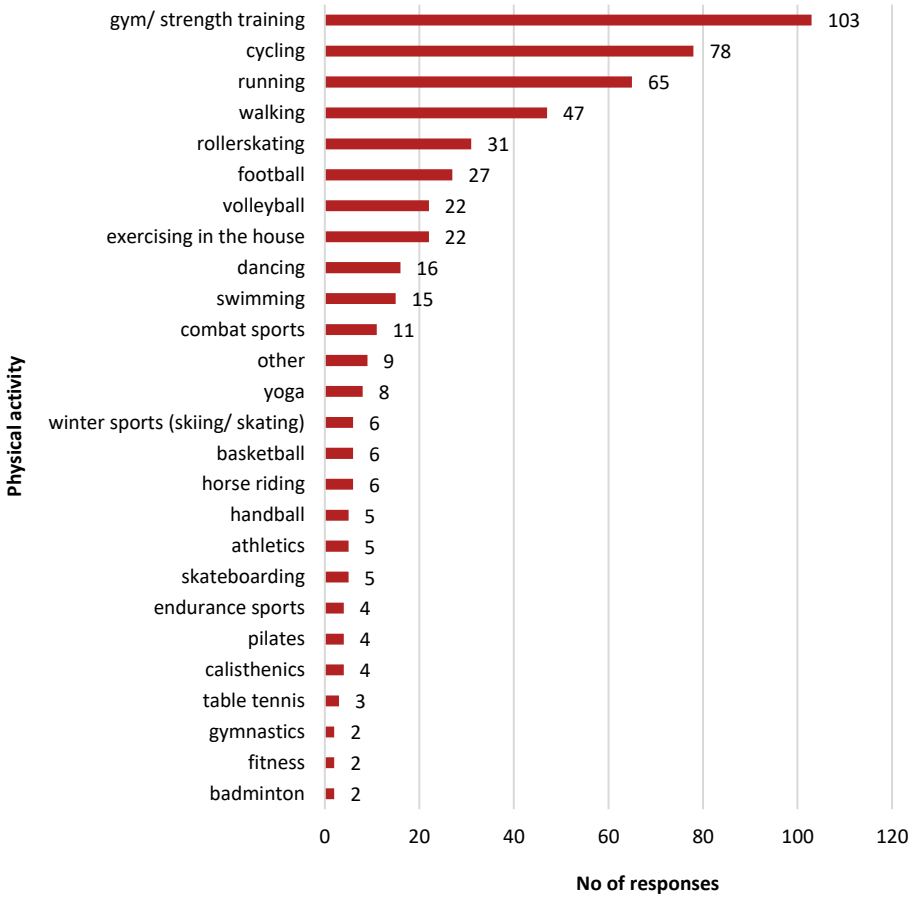

Chart 4
Physical activity of secondary school students besides their PE classes, in their free time

The next graph concerns physical activities that the students undertake most often in their free time. The students listed 26 types of physical activity, which is a slightly bigger number than the scope of activities offered by PE lessons at school. Out of the activities that are not practised at school, the following were mentioned: calisthenics, pilates, skateboarding, winter sports, yoga, rollerskating, walks, running. These activities occur in the students' preferences pertaining to PE lessons.

Discussion

Insufficient physical activity and the occurrence of hypokinesis leads to very serious disorders in human body functioning, decreasing life quality, both in the area of physical and mental health (Marker et al. 2018). It should be emphasised that in Poland this phenomenon is even more dangerous as we are not among the countries where active leisure activities are common. Unfortunately, as Sas-Nowosielski (2003a) and Biernat (2011) notice, daily physical activity is slowly becoming part of modern Poles' lives. It also concerns children and teenagers, where there is a noticeable reluctance to engage in physical activity, including PE lessons (Mogiła-Lisowska, 2010; Bednarek, 2011). As Korpak (2021) states, school which should prepare young people for physical activity does not fully fulfil its role. Pańczyk (2004) notices that contemporary school will find it hard to limit the extent of hypokinesis both among students and in adult populations. However, in this author's view, this is a necessary condition for better development and health. Thus, various ways of legitimising physical activity at school and in the family should be sought. The research by Makaruka et al. (2024), conducted on a large sample of Polish primary school students representative of the entire country, shows that the vast majority (approximately 94%) of them showed insufficient proficiency in basic motor skills. It may significantly hinder effective, safe and healthy participation in physical activity throughout one's life.

Our respondents are secondary school students who, unfortunately, mention lack of desire and motivation as the most frequent reasons of their non-participation in PE lessons. The girls mentioned the aforesaid reason more often than the boys. Other reasons included lack of sports outfit, feeling unwell or parental excuse. Creating the right motivational climate, as it derives from the research by Różańska and Górniak (2018), consists in the right atmosphere of the lesson in question, the teacher's approach and implementation of curriculum topics that interest girls. Moreover, the girls participating in the research pointed to introducing music, gaining knowledge on how to care about their health. The authors explain the passive ways in which the girls spend their free time by their lack of motivation and the teacher's approach. Sas-Nowosielski (2003b) puts the emphasis on reducing the elements of competition and in-

creasing cooperation within the group. This may eliminate problems caused by an inappropriate class atmosphere.

The respondents drew attention to the ways of running PE lessons, the teacher's approach and their attitude towards the students. These elements discouraged them from participating in PE lessons. The research by Smuka (2012) shows that boys demonstrated significantly greater activity during the lessons when their teacher actively participated in them. Other studies also confirm irregularities such as lack of the teacher's preparation for the lesson or lack of an appropriate outfit (Faber & Wilczak, 2010). The studies conducted by Piech et al. on physically active adults participating in various events testing their endurance show that parents and PE teachers are less important in the respondents' current lifestyle than their group of friends. It was friends who encouraged the respondents to engage in physical activity (Piech et al., 2022). The current studies also demonstrate this negative trend. The respondents state that PE lessons only slightly encourage them to undertake physical activity in their free time. It aligns with the research by Nowak who states that school does not prepare enough for physical activity in adult life. The studies by this author show that a better effect was achieved in case of women who realised their sports interests outside of physical education classes. These women more often participated in physical activity in their adult life (Nowak, 2009). It is even more concerning as the research by Sas-Nowosielski shows that parents were nor perceived by the charges as role models of an active lifestyle (Sas-Nowosielski, 2009). It is confirmed by the studies by Górna (1996) and Fąk (2002). Poland belongs to the group of countries with the biggest number of PE lessons, which unfortunately does not translate into whole-life physical activity. In Ireland 70% of the students, and in Bavaria 85% of the girls and 90 % of the boys said they would continue their education after school graduation. In Poland it is 60% of the boys and 50% of the girls (Pośpiech, 2006). E. Kozłowska's research shows that active participation in PE lessons increases the likelihood of participating in physical culture after completing education (Kozłowska et al., 2015).

All those studies point to a very significant element, i.e. a limited variety of activities that occur in Physical Education classes. The respondents point to the fact that these activities do not always meet their expectations. The respondents mentioned a few forms of activity that do not occur in Physical Education classes but are practised in the respondents' free time. These were rollerskating, cycling, horseriding and skateboarding. The students also drew attention to the needs pertaining to their physical activity. They mention such activities as badminton, paintball, combat sports, calisthenics, which rarely or never occur in Physical Education classes. Team sports often practised during PE classes are also preferred by young people. In their free time, the students practise 26 activities, while they practise 20 in Physical Education classes. The report issued by the

Supreme Audit Office (NIK) shows that only 4% of students confirmed introducing more attractive forms of physical activity, e.g. dance, aerobics, swimming, agility games, and 27% of them expressed the need for a different teaching style or a change of teacher. As many as 33% of secondary school students stated that their PE lessons are not interesting (NIK, 2010). Jaślikowska-Sadowska (2016) draws attention to too monotonous and repetitive lessons leading to fatigue, and lack of varied forms of exercises tailored to the needs of young people.

The issue of variety is emphasised by K. Sas-Nowosielski. In the future, students will have a bigger array of possibilities at their disposal if, apart from popular sports disciplines not always liked by young people, there are simple activities that do not require a long learning process (Sas-Nowosielski, 2003b).

The seasonality of activities is also an important factor. There are no activities characteristic for the winter season like cross-country skiing, skating. Other outdoor activities such as canoeing, rollerskating, athletics occur to a limited extent. The aforementioned activities may be lifelong sports. This may also indicate that few classes are held outside the gym. If there is any physical activity in the future, it will occur most often in the family or outdoors. There is a need to take into account students' needs in this regard. Within the framework of promoting physical activity, some European Union countries are implementing active school commuting programmes. However, there are no precise data on this type of intervention (Marzi et al., 2022). Self-motivation may contribute to the efficacity of such programmes, e.g. the studies by Smuka (2018) show that Latvian students want to be more physically active and use their bikes to commute to school and back. Yet, only 5% of the students used their bikes for that purpose. The lack of bike lanes, as well as the quality and safety of roads, were cited as reasons for such low involvement in cycling. In the opinion of Henriques-Neto (2020), commuting actively to school by cycling seems to have a more positive impact on physical fitness. One way to improve children's health and reduce obesity among them is to introduce more activity into their daily lives, such as active transportation to school (Cieśla et al., 2022).

The respondents suggest changing the grading system, and advocate for an individual approach to students while evaluating their fitness and engagement in Physical Education lessons. The studies by Jaślikowska-Sadowska (2016) that covered the students of the Physical Education Faculty show that teachers evaluate everyone by the same standards or favour certain students.

Conclusions

1. The students draw attention to too little variety in physical activities during physical education classes. Making these classes more varied can make them

more attractive and encourage students to undertake physical activity in their free time.

2. The reason for the lack of willingness to actively participate in Physical Education classes may be the mismatch between the forms of physical activity and the interests of students.
3. Increasing students' self-esteem concerning their physical fitness may contribute to changing their attitude to PE lessons and voluntary participation in these lessons. Thus, it can indirectly influence students' intrinsic motivation and lead to their increased participation in PE lessons and undertaking physical activity in their free time.
4. A key area that needs support in order to increase students' participation in Physical Education lessons is a psychological factor linked with better motivation, which may be realised by e.g. organising more attractive lessons or showing current and future benefits of participating in such classes.
5. A frequent reason given by students for non-participation in PE lessons was lack of sports outfit. It shows that it is a significant problem for young people that might derive from e.g. financial, mental, social or organisational barriers. Lack of identification of these barriers is an information gap that shall be covered in further research.
6. There is a need of diagnosing young people's physical activity needs in order to better tailor the curriculum to the needs of both the most active students (e.g. through additional sports activities) and those who are less involved in exercise.
7. The results obtained also suggest that it is worth considering the need to adapt the curriculum to the needs of people with various health limitations.

DECLARATION OF CONFLICTING INTERESTS

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AUTHORS' CONTRIBUTIONS

Krzysztof Piech: Conceptualization, Methodology, Original Draft, Review & Editing, Investigation, Validation

Paulina Kalicka: Data Curation, Investigation, Review & Editing, Original Draft, Investigation, Validation

Mirosław Zalech: Analysis, Visualization, Validation, Original Draft, Review & Editing. All authors approved the final version of the manuscript

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