

Primary school students' attitudes towards physical culture, physical education lessons and exercises during a pandemic

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Abstract

Introduction: One of the main goals of physical education is forming students' proper attitudes towards physical exercises and culture. The study aimed to determine primary school students' attitudes towards physical culture, physical education lessons and physical activity.

Material and methods: The tests were conducted at the turn of May and June 2020 among primary school students from Kraków and Tarnów. They comprised 336 students, including 141 girls. Research employed the Questionnaire for testing attitudes of the youth towards physical culture by S. Strzyżewski (Pol. *Kwestionariusz do badania postaw młodzieży wobec kultury fizycznej*).

Results: The test results demonstrated students' positive attitudes towards physical culture. For most of the examined (76.2%) physical activity means pleasure. More than a half of the students (57.7%) are satisfied with physical education classes. Boys enjoyed physical exercises more frequently than girls.

Conclusions: Students present a positive attitude towards physical culture, physical education lessons and physical activity. The level of attitudes is higher among boys than girls. It would be advisable to make physical education lessons more attractive to girls in order to form positive attitudes.

Keywords: attitudes, physical culture, students

Introduction

An attitude comprises several definitions which are not only used in fields of study. The term features many meanings and it is applied from an analysis of literary works or theatre plays to sociological phenomena. Plenty of definitions and their similarities may hinder scientific orientation: therefore, in the present work (due to its nature) a structural conception was adopted [1]. It consists of a cognitive component, that determines individual's knowledge and views, an emotional component, expressing sensitivity and relations, and a behavioural one that presents certain intentions and deeds.

Attitudes play a significant role in a social life; therefore, forming them is very important. The primary forming circle is a family. It first affects a child and influences its physical activity and an emotional relationship connected with it [2]. At the same time, in a formal way, a school (especially PE lessons) aims to properly form students' attitudes towards widely understood physical culture.

The changes, that are dynamically occurring worldwide due to initially epidemic and then pandemic of coronavirus COVID-19,

resulted in a lockdown procedure which significantly hindered the functioning of schools and contemporary families. Partial transfer of responsibility from schools to homes introduced new challenges for students, teachers and parents. On the one side, the increased family stimulation on a student deepened close relations, but on the other hand, it affected daily life. The parents' new role as educators and frequent technical and logistic problems connected with e-learning (learning with the use of IT) made it difficult to realize the curriculum or basic school guidelines and to form proper attitudes and social roles. It should be emphasized that only quality education leads to proper forming of values and cultural norms (including attitudes towards physical culture) [3,4]. A total transfer of education and compulsory schooling to students' homes may bring long-term and unfavourable results [5].

The aim of the study was to determine students' attitudes towards physical culture during a pandemic in Poland. The results were to answer the following questions:

1. How are the students' attitudes towards widely understood physical culture and its individual components formed during a pandemic?
2. What is the students' attitude towards PE lessons and physical exercises?
3. Does the sex of the examined differentiate attitudes?

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Material and methods

The tests were conducted at the turn of May and June 2020 with the use of the Internet platform Librus among seventh-grade students from Tarnów and Kraków. The examinations comprised 336 students (141 girls). Necessary consents to include the students in the research were obtained.

The research applied the diagnostic survey method with a leading role of the Questionnaire for testing attitudes of the youth towards physical culture by S. Strzyżewski [1]. It consisted of 67 questions taking into account three components: cognitive (KP), emotional (KE) and behavioural one (KB). Questions and replies received points according to the key. After decoding, the global index (WG) was calculated by its particular elements following the equations:

$$KE = \frac{\Sigma \text{ points}}{21}$$

$$KP = \frac{\Sigma \text{ points}}{26}$$

$$KB = \frac{\Sigma \text{ points}}{20}$$

$$WG = \frac{KP + KE + KB}{67}$$

Results

Table 1. Values of components and the global index of the attitude towards physical culture

Class ranges		KP		KE		KB		WG	
		N	%	N	%	N	%	N	%
1	0.50-0.75	0	0.0	1	0.4	2	0.5	1	0.3
2	0.75-1.00	0	0.0	2	0.5	7	1.8	3	1.0
3	1.00-1.25	2	0.5	6	1.7	16	4.9	5	1.4
4	1.25-1.50	3	0.8	7	2.2	26	7.9	9	2.8
5	1.50-1.75	6	1.8	20	5.9	41	12.1	22	6.7
6	1.75-2.00	11	3.4	40	11.9	59	17.4	72	21.3
7	2.00-2.25	38	11.3	70	20.9	64	19.2	89	26.4
8	2.25-2.50	71	21.0	76	22.6	49	14.7	61	17.8
9	2.50-2.75	99	29.4	56	16.7	39	11.5	43	12.7
10	2.75-3.00	64	19.2	38	11.3	18	5.5	13	3.9
11	3.00-3.25	25	7.3	18	5.4	8	2.5	8	2.5
12	3.25-3.50	11	3.4	2	0.5	6	1.7	6	1.9
13	3.50-3.75	6	1.9	0	0.0	1	0.3	4	1.3
Total		336	100	336	100	336	100	336	100
Maximal value		3.71		3.42		3.67		3.51	
Minimal value		1.02		0.52		0.50		0.54	
Mean		2.55		2.55		2.12		2.31	
Standard deviation		0.41		0.47		0.53		0.44	
Median		2.59		2.28		2.18		2.36	
Mode		2.71		2.32		2.35		2.44	

The test results indicated different mean values of the particular components of the attitude as well as the global index of the students towards holistically understood physical culture from a pedagogical perspective. The Mean value of the global index

amounted to 2.31. The mean value of the cognitive index (2.55) was the highest from among the attitude components, whereas the mean of the behavioural index (2.12) was the lowest (Table 1).

Table 2. Mean values of particular components and the global index of attitudes towards physical culture

Sex of the examined	Index of attitudes towards physical culture			
	KP	KE	KB	WG
Girls	2.51	2.15	2.03	2.23
Boys	2.59	2.35	2.22	2.39
Total	2.55	2.25	2.12	2.31

The results showed that boys are characterised by higher mean values of the particular components as well as the global index of attitudes towards physical culture. The most significant

differences between girls and boys were observed by the behavioural component and the global index (Table 2).

Table 3. Students' attitudes towards PE lessons

Category of questions	Sex	Category of replies									
		Definitely Yes		Yes		Don't know		No		Definitely No	
		N	%	N	%	N	%	N	%	N	%
Question 9	Girls	20	14.4	50	35.6	37	25.9	22	15.3	12	8.8
	Boys	61	31.3	68	34.5	26	13.5	24	12.5	16	8.2
	Total	81	24.1	118	35.1	63	18.8	46	13.7	28	8.3
Question 10	Girls	18	12.8	39	27.7	27	19.1	40	28.3	17	12.3
	Boys	20	10.1	63	32.1	40	20.6	49	25.2	23	12.0
	Total	38	11.3	102	30.4	67	19.9	89	26.5	40	11.9
Question 11	Girls	10	7.1	54	38.4	38	26.6	23	16.5	16	11.4
	Boys	43	22.2	86	43.7	35	18.1	20	10.4	11	5.6
	Total	53	15.8	140	41.7	73	21.7	43	12.8	27	8.0
Question 65	Girls	26	18.2	51	36.5	9	6.4	41	28.8	14	10.1
	Boys	93	47.6	80	41.2	9	4.4	11	5.5	2	1.3
	Total	119	35.4	131	38.8	18	5.4	53	15.7	16	4.7

Legend:

Question 9: Would you participate in PE lessons if they were not compulsory?

Question 10: Do you get bored at PE lessons?

Question 11: Do you feel satisfied with PE lessons?

Question 65: Are you always healthy when you take part in PE lessons?

The structure of the questionnaire by S. Strzyżewski includes questions concerning attitudes towards PE lessons (questions 9, 10, 11 and 65). An analysis of the results indicated that the straight majority of the examined (74.1%) would willingly participate in non-compulsory PE lessons. It may arouse anxiety that 22% of the students would refuse to participate in non-compulsory PE lessons. More than half of the students (57.5%) are satisfied with lessons realised so far and almost 40% of them have never been bored in the class. Nearly ¼ of the students participated in systematically in PE classes when they were healthy (Table 3).

A detailed analysis shows that only half of the examined girls would participate in non-compulsory PE lessons. It may result from the fact that the examined girls (40.6%) more than their male peers (37.2%) get bored during exercises and much more frequently (27.9%) than boys (16.0%) feel dissatisfied with physical education. Boys (65.9%) express a positive attitude towards lessons, and even greater part of them (88.8%) willingly do exercises when they are healthy (Table 3).

Table 4. Students' attitudes towards physical exercises

Category of questions	Sex	Category of replies									
		Denifitely Yes		Yes		Don't know		No		Denifitely No	
		N	%	N	%	N	%	N	%	N	%
Question 5	Girls	32	22.5	66	46.4	19	13.7	13	9.5	11	7.9
	Boys	80	41.1	71	36.6	17	8.8	14	7.1	13	6.4
	Total	112	33.3	137	40.8	36	10.7	27	8.0	24	7.2
Question 14	Girls	10	6.9	39	27.8	37	26.5	39	27.5	16	11.3
	Boys	36	18.6	80	41.2	31	15.7	41	21.1	7	3.4
	Total	46	13.7	119	35.4	68	20.2	80	23.8	23	6.9
Question 41	Girls	18	13.0	36	25.1	22	15.8	44	31.5	21	14.6
	Boys	50	25.5	59	30.3	25	12.9	48	24.7	13	6.6
	Total	68	20.2	95	28.3	47	14.0	92	27.4	34	10.1
Question 46	Girls	16	11.5	24	16.9	35	25.1	40	28.1	26	18.4
	Boys	26	13.2	70	36.1	31	15.7	43	22.2	25	12.8
	Total	42	12.5	94	28.0	66	19.7	83	24.7	51	15.1
Question 63	Girls	12	8.3	34	23.9	27	18.8	48	34.6	20	14.4
	Boys	38	19.3	44	22.5	43	21.8	63	32.4	7	4.0
	Total	50	14.9	78	23.2	70	20.8	111	33.0	27	8.1
Question 64	Girls	21	14.7	31	22.4	32	22.9	28	19.9	29	20.1
	Boys	53	27.3	61	31.1	28	14.2	32	16.6	21	10.8
	Total	74	22.1	92	27.4	60	17.8	60	17.8	50	14.9
Question 67	Girls	37	26.6	66	46.9	19	13.4	11	7.6	8	5.5
	Boys	80	40.9	73	37.6	21	10.9	12	6.1	9	4.5
	Total	117	34.8	139	41.4	40	11.9	23	6.8	17	5.1

Legend:

Question 5: Do you feel satisfied during physical exercises despite being tired?

Question 14: Do you usually get bored while doing physical exercises?

Question 41: Do you feel an inner need to play ball when you see it?

Question 46: What is more important to you while playing a game? A result or pleasure of playing it?

Question 63: Do you think an increased number of PE lessons at school is necessary?

Question 64: Would you be satisfied if the number of PE classes was increased?

Question 67: Do physical exercises make you satisfied?

Seven questions from the questionnaire (No. 5, 14, 41, 46, 63, 64 and 67) were connected with physical activity. The replies show that ¾ of the students feel satisfied while doing exercises. A similar number of the examined (74.1%) enjoy exercises despite being physically exhausted. Almost half of them (48.5%) would like to play ball when they see it. It is positive that almost half of the examined would be glad if the number of PE lessons was increased, and especially boys (58.4%) believe that it is even necessary (Table 4).

Examining attitudes towards physical culture reveals differences between sexes. Female students more frequently feature negative emotions connected with PE lessons and more rarely undertake physical effort. Whereas, boys would like more PE lessons at school, which is connected with the feeling of satisfaction and their willingness to play ball (Table 4).

Discussion

The task of a school, and more precisely of PE lessons and the teachers, is to form positive emotions in students towards the effort they put into the exercises [6]. It is believed that forming attitudes itself is one of the most difficult challenges faced by teachers, however, it is thought to be an ultimate criterion of the effectiveness of teaching and educational work. It should be mentioned that without family support, the work will not be so highly efficient. Consciously or not, children adopt behavioural patterns and views from their parents. If the closest family circle follows healthy lifestyle and cares about physical condition, the children will accept the values as theirs [7]. Strong and integral cooperation between a school and a family may bring positive educational results for the next generations [8,9].

The test results show that students represent positive attitudes

towards physical culture together with its individual components. The mean value of the physical culture global index is 2.31, whereas the highest mean value was reached by the cognitive component, then emotional and behavioural ones. A similar distribution of the global index and particular components was found by E. Madejski et al. [10] and Górna [11] in studies on physical culture of secondary school students.

On the basis of a detailed analysis of the results, differences between sexes were observed. The examined boys presented higher values of the attitude with its components. They felt positive emotions connected with participation in PE lessons, and consequently they would like to attend non-compulsory classes. Moreover, positive attitudes are strengthened by their demand for more PE lessons at school. Apart from attitudes connected with school, the boys presented higher values towards physical activity in a global perspective. Whereas girls get bored during lessons and less willingly undertake efforts when they are healthy. Similar results were obtained in studies by other authors [10,11,12,13,14].

Adaptation of curricula to students' sex, age and interests seems to be the key factor that affects children [15]. It should be emphasized that an attractive change of exercises and lesson organization indicated a positive influence on their activity at school [1,16] and after it [17,18,20].

Conclusions

The analysis of the test results allowed the following conclusions:

1. Despite almost three-month-long online teaching caused by the virus pandemic in Poland, the examined students presented positive attitudes towards globally understood physical culture. The highest values were obtained in the cognitive component and the lowest in the behavioural one.
2. Relatively short time, in which school switched to e-learning, did not affect drastically or negatively the students' attitudes towards physical activity and PE lessons.
3. Differences between sexes were observed. Girls, more rarely than boys, felt satisfied with their physical activity done so far. Proportionally, more frequently they got bored during lessons and were less willing to do exercises. Boys would enjoy their increased number of PE lessons at school and they were more satisfied with exercises.

It is recommended to continue similar studies in order to monitor students' attitudes towards physical culture. The test results will significantly help teachers to plan their work in a fast-changing world; therefore, students will be able to become aware at what level their attitudes which lead to constant care for their health and physical condition are formed.

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