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School Sports Clubs Members' Attitudes Towards Physical Education and Sport

by
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The purpose of the educational process is to promote pro-fitness lifestyle, which means that an adult will engage in different forms of physical activity on a regular basis, resulting in health enhancement. Several authors have investigated the attitudes of Polish children and adolescents to physical education and sport, and compared their results to those of investigations on instrumental goals. Different aspects of attitudes towards physical education and sport were also studied by researchers from numerous countries using diagnostic questionnaires.

The purpose of the present study was to identify the educational effects of school sports clubs (SSC). The differences of attitudes towards physical education and sport were compared between members of SSC and youth of the same age that did not participate in the activities of the clubs.

The study questionnaire was sent out to 623 randomly selected school sports clubs in Poland. A cover letter explained the purpose and procedure of testing. Correctly filled questionnaires were obtained from 103 school sports clubs. 2704 questionnaires were selected for statistical analysis. The research tool, (i.e., diagnostic questionnaire), had been developed by Strzyżewski (1990).

The obtained results indicate the attitude of questionnaire respondents towards physical education and sport is positive but reserved. Despite the strength of the cognitive component (cognitive scores were highest), the actual participation in out of school sports activities was insufficient (low values of behavioural scores). SSC members have more positive attitudes towards physical education and sport than their non-SSC counterparts.

Key words: *educational process, physical education, school sports clubs, questionnaire,*

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Introduction

Formation of major personal dispositions has been emphasized among other goals of physical education at school, such as the development of instrumental personal dispositions, acquirement of movement skills, physical fitness, and knowledge in physical education and sport.

The purpose of the educational process is to promote pro-fitness lifestyle, which means that an adult will engage in different forms of physical activity on a regular basis, what resulting in health enhancement. An attitude can be defined as a relatively established structure of cognitive and emotional processes and behaviours related to a subject or a disposition to those processes and behaviours' (Mika, 1980). An attitude has three components, (i.e., cognitive, affective, and behavioural). According to Strzyżewski (1996), the following are incorporated in particular components of attitudes toward physical education and sport:

- the cognitive component includes knowledge, experience as well as opinions and convictions,
- the affective component is characterized by emotional relationship, responsiveness, and well-established motivation towards activities aimed at health and physical fitness enhancement,
- the behavioural component expresses everyday enthusiasm to pro-fitness behaviour (Strzyżewski, 1996).

Polish guidelines of general education (1999), which also apply to physical education, emphasize the importance of personality formation; the following educational goals are specified: "developing responsibility for own and other individuals' health" (elementary school); "understanding the significance of body, health, and beauty care, and physical fitness as a basis of self-respect, and respect for others".

Several authors have investigated the attitudes of Polish children and adolescents to physical education and sport, and compared their results to those of investigations on instrumental goals. Thus, the enthusiasm to participation in physical education and sport programmes (Górna, 2001; Skalik, 1996) as well as the efficiency of the programmes was also determined (Bukowiec, 1990; Frołowicz, 1994). Studies carried out at the turn of 1980s and 1990s were aimed at developing a standard research tool (Strzyżewski's Questionnaire for Testing Youth's Attitude to Physical Education and Sport) (Skalik, 1989; Witek, 1989), and presenting the attitudes of selected population fractions (Kodura, 1989; Koj, 1992; Marszołek, 1992, Skalik, 1992; Strzyżewski, 1990). Other research methodology was used by Wojciechowski (1990), who adapted Mercer's questionnaire,

which was developed to evaluate the attitude of female adolescents towards psychological, sociological, moral, and spiritual values of physical education. All aforementioned authors characterized their respondents' attitude as moderately positive and unformed.

Different aspects of attitudes towards physical education and sport were also studied by researchers from numerous countries using diagnostic questionnaires. Koca and colleagues (2005) used a pre-categorized questionnaire (with respondents giving their full support or disapproval) in single-sex and coeducational schools and in sport and non-sport subjects (Koca et al., 2004). Sollerhed et al., 2005 and co-workers, tried to determine whether a correlation existed between the sense of coherence among adolescents and their attitudes towards physical education. They used a research tool consisting of 5 positive and 5 negative statements concerning physical education (Sollerhed et al. 2005). Shropshire (1997) investigated the attitudes of 10 and 11 year old boys using the Pre-Adolescent Attitude to Physical Education Questionnaire (PAAPEQ), which helps identify general interest of pupils in physical education and their perception of the physical education teacher and curriculum. Stewart (1991) compared attitudes towards physical education as measured among junior and senior high school students. The questionnaire used consisted of 66 statements, 32 of which were positive, and 34 negative towards physical education at school. The items were associated with five aspects of physical education, i.e., development of physical fitness, acquisition of motor skills, and cognitive, affective, and social development. Westerstahl (2003) studied the secular trend of attitudes towards sports activities and physical education among 16 year old Swedes. Her questionnaire was designed to reveal positive, negative or neutral choices.

The goals of physical education, including generation of positive attitudes towards physical education and sport, can be realized not only during physical education lessons, but also in leisure-time activities in a school sports club. Article 7 of the Act on Physical Education and Sport grants legal status to those clubs; students, parents, and teachers can all become members. School sports club activities are within the framework of the Associations Incorporation Act of 7th April 1989; the clubs are subject to registration by the prefect of the district. The objective of school sports clubs is to organize sports activities and events at school, and encourage all students to participate in leisure time sports and recreational activities. Parents play a supportive role, pay membership fees, and may also act as club sponsors. The initiator of the idea of school sports clubs perceived those associations as active at school or, at the most, within the community. In practice, however, their activity range has been much more extensive, frequently crossing the Polish borders (Tomik, 2006).

Availability of sports equipment as well as an easy access to the financial resources of the programme "Sport for all children" spurred rapid development of school sports clubs (SSC). Organisational and financial support from local administration also played a considerable role. According to official statistics, 4666 traditional sports clubs were operating in Poland in 2004. Data from the author's studies reported over 6000 school sports clubs in 2005 (Tomik, 2005).

The purpose of the present study was to identify the educational effects of school sports clubs. The differences in attitude towards physical education and sport were compared between members of SSC and those boys and girls who did not participate in the activities of the clubs.

The following research issues were considered:

What are SSC members' attitudes towards physical education and sport as compared to their peer groups who do not participate in school sports club activities (here forward referred to as non-SSC students).

Are there any gender differences in attitudes towards physical education and sport among SSC members and non-SSC students?

Working hypothesis:

SSC members will have more positive attitudes towards physical education and sport than their non-SSC counterparts.

Material and methods

Subjects

In November 2005, the study questionnaire was sent out to 623 randomly selected school sports clubs in Poland. A covering letter explained the purpose and procedure of testing. Correctly filled questionnaires were obtained from 103 school sports clubs. 2704 questionnaires were selected for statistical analysis (Table 1).

Methods

The research tool, (i.e., diagnostic questionnaire) had been developed by Strzyżewski (Questionnaire for Testing Youth's Attitude to Physical Education and Sport). Its accuracy, reliability, and selectivity were previously verified in various population fractions (Skalik, 1989; Witek, 1989; Strzyżewski, 1990; Górna, 2001). The questionnaire consisted of 67 questions. The following were evaluated:

- global score (total score),

- cognitive, affective, and behavioural scores (a set of 26, 21, and 20 questions, respectively)

Table 1

Number of respondents depending on SSC membership, gender, and school level

School level (age)	Total number of students		Number of SSC members		Total	
	Girls	Boys	Girls	Boys	n	%
Elementary school (9-13 years)	387	278	357	413	1435	53.07
	665		770			
Junior high school (13-16 years)	306	154	317	231	1008	37.28
	460		548			
High school (16-19 years)	43	84	80	54	261	9.65
	127		134			
Total	736	516	754	698	2704	100.0
	1252		1452			
%	46.30		53.70		100.0	

Respondents were asked to choose among five predefined responses, (i.e., certainly YES, YES, I do not know, NO, and certainly NO). Each particular response was assigned a point value (4, 3, 2, 1, 0, respectively). Individual scores were calculated as a product of all point values gained for a particular question set, and the number of set questions. Attitude strength was determined based on Wojciechowski's range:

0 – 0.49 – highly negative;
0.5 – 1.49 – negative;
1.5 – 2.49 – neutral;
2.5 – 3.49 – positive;
3.5 – 4.0 – highly positive.

Statistics

The Kolmogorov-Smirnov test was used to determine the consistency of strength distributions in the whole study population, and then separately in boys and girls of elementary, junior high, and high school levels, as well as SSC members and non-SSC students. The distributions of attitude component scores differ significantly from the normal distribution ($p<0.01$), except the global score ($p<0.1$). However, low skewness and curtosis, and the large number of study participants allowed the use of variance analysis (Lindman, 1974). The four attitude scores (global, cognitive, affective, and behavioural) consisted of the dependent variables, while the independent variables of interest were SSC membership and gender.

Statistical significance was analysed based on parametric test results. Double classification analysis of variance was used to determine the effect of the independent variable, (i.e., whether the latter had caused significant differentiation of the means of dependent variables). Post hoc Bonferroni's test was then carried out to determine interactions between particular attitude components. Significant interaction between two variables indicates that the amount of variance in the dependent variable accounted for by a single factor is different in groups accounted for by the other factor.

Results

The value of the global score, (i.e., 2.69), revealed a moderately positive attitude to physical education and sport in all studied subjects. The cognitive score had the highest value (2.83), and the behavioural the lowest (2.48), which shows a tendency towards a neutral attitude (Table 2). Mean global scores were 2.82 and 2.55 in SSC members and non-SSC students, respectively. SSC members also scored higher in the remaining components; their cognitive, affective, and behavioural scores were 2.92, 2.86, and 2.65 as compared to respective values of 2.74, 2.56, and 2.29 obtained by their non-SSC counterparts. The difference between behavioural scores was the highest (0.36), suggesting between-group disparity regarding enthusiasm to pro-fitness behaviour.

Table 2

Scores of attitude towards physical education and sport in the whole studied population

Score	n	x	Min.-max	SD	Sk.	Cu.
Global	2704	2.69	0.67-3.91	0.39	-0.176	0.468
Cognitive	2704	2.83	1.00-4.00	0.38	-0.046	0.350
Affective	2704	2.72	0.48-3.90	0.47	-0.396	0.327
Behavioral	2704	2.48	0.45-4.00	0.47	-0.121	0.341

Global Score (GS)

Global scores of boys were higher than those of girls. In both groups, SSC members showed more positive attitudes toward physical education and sport than non-SSC students (Table 3).

Table 3

Mean global scores depending on gender and SSC membership

	x	n	SD
Girls	2.64	1490	0.39
Non-SSC students	2.50	736	0.38
SSC members	2.79	754	0.35
Boys	2.75	1214	0.38
Non-SSC students	2.62	516	0.41
SSC members	2.84	698	0.34
Total	2.69	2704	0.39

Variance analysis

Gender and SSC membership are significant determinants of the global score. These two variables interact significantly which implies that general attitude toward physical education and sport (as reflected by the global score) is more affected by SSC membership in girls than in boys (Table 4).

All population fractions analysed differ regarding the global score (Table 5).

Table 4

Double classification analysis of variance – the effect of SSC membership and gender on the global score

	MS Efect	MS Error	F	P
Gender	5.359406	0.13399	39.99858	< 0.001*
SSC membership	43.87709	0.13399	327.4656	< 0.001*
SSC membership and gender	0.862425	0.13399	6.436492	0.01124*

* statistically significant

Table 5

Post hoc Bonferroni's test for mean global scores; comprehensive comparison between boys and girls

	Gender	SSC membership	1 (2.50)	2 (2.79)	3 (2.62)	4 (2.84)
1	Girls	no		< 0.001*	< 0.001*	< 0.001*
2	Girls	yes	< 0.001*		< 0.001*	0.03011*
3	Boys	no	< 0.001*	< 0.001*		< 0.001*
4	Boys	yes	< 0.001*	0.03011*	< 0.001*	

* statistically significant

Attitude structure

The cognitive score was higher in boys than in girls. Also, its values were higher in both female and male members of SSC than in non-SSC students. Interactions between gender and SSC membership and affective scores were similar as in the case of the other scores. Boys and SSC members show more positive attitudes than their counterpart peer groups, (i.e., girls and non-SSC students). Mean behavioural scores are lower than those of other attitude components; however, the effect of gender and SSC membership is identical. Thus, boys scored higher than girls, and SSC members scored higher than non-SSC students (Table 6).

Table 6

Mean scores of attitude components in girls / boys, and SSC members / non-SSC students

	n	%	Cognitive component		Affective component		Behavioral component	
			x	SD	x	SD	X	SD
Girls	1490	55.10	2.81	0.37	2.67	0.47	2.41	0.47
Non-SSC students	736	49.40	2.71	0.36	2.50	0.48	2.22	0.46
SSC members	754	50.60	2.91	0.35	2.84	0.41	2.59	0.41
Boys	1214	44.90	2.87	0.40	2.78	0.45	2.57	0.46
Non-SSC students	516	42.50	2.78	0.41	2.64	0.49	2.40	0.48
SSC members	698	57.50	2.93	0.37	2.88	0.39	2.70	0.40
Total	2704	100.00	2.83	0.38	2.72	0.47	2.48	0.47

Variance analysis

Although gender and SSC membership are important determinants of the cognitive score, no significant interactions were found between these factors. The difference in cognitive scores between boy and girl SSC members and their non-SSC counterparts did not reach the level of statistical significance.

The effect of gender and SSC membership on the affective score was statistically significant; similarly, the interaction between these factors. The difference between SSC- and non-SSC girls was more significant than that between their boy counterparts.

Independent variables (gender and SSC membership) had a significant effect on the behavioural scores; their mutual interaction was also significant. Similarly SSC membership also had a stronger effect on the behavioural score of girls than of boys (Table 7).

Table 7

Double classification analysis of variance – the effect of SSC membership and gender on attitude component scores

	MS Efect	MS Error	F	P
Cognitive component				
Gender	1.497577	0.138911	10.78081	< 0.001*
SSC membership	20.70921	0.138911	149.0821	< 0.001*
SSC membership - gender	0.344117	0.138911	2.477242	0.11562
Affective component				
Gender	5.279537	0.193304	27.31216	< 0.001*
SSC membership	53.06308	0.193304	274.5065	< 0.001*
SSC membership - gender	1.755359	0.193304	9.080846	0.00261*
Behavioral component				
Gender	14.07667	0.190069	74.06083	< 0.001*
SSC membership	74.40283	0.190069	391.4518	< 0.001*
SSC membership - gender	0.916414	0.190069	4.82148	0.02819*

* *statistically significant*

All population fractions analysed differed significantly regarding mean cognitive scores (Table 8) as well as mean affective scores (Table 9), except for boy and girl SSC members. As shown by mean behavioural scores, all population fractions differ regarding the enthusiasm to pro-fitness behaviour (Table 10).

Table 8

Post hoc Bonferroni's test for mean cognitive scores; comprehensive comparison between boys and girls

	Gender	SSC membership	1 (2.71)	2 (2.91)	3 (2.78)	4 (2.93)
1	Girls	no		< 0.001*	0.01283*	< 0.001*
2	Girls	yes	< 0.001*		< 0.001*	0.59966
3	Boys	no	0.01283*	< 0.001*		< 0.001*
4	Boys	yes	< 0.001*	0.59966	< 0.001*	

* *statistically significant*