THE INFLUENCE OF PARALYMPIC SCHOOL DAY ON CHILDREN'S ATTITUDES TOWARDS PEOPLE WITH DISABILITIES

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OBJECTIVES: The aim of this study is to determine the influence of Paralympic School Day on the attitudes of school children toward people with a disability; to analyze the basics and theories of Paralympic Education in school settings.

METHODS: The participants were 36 children with a mean age of 11.78 (17 boys and 19 girls) from the elementary school Hrdličky in Ostrava, the Czech Republic. All participants completed the questionnaire "Children's Attitude Toward Integrated Physical Education-Revised" (CAIPE-R) (Block, 1995) and the Adjective checklist before and after the implementation of the program.

RESULTS: The scores of the participants' general attitudes toward including people with disability in PE increased from 16.50 to 17.25, the mean scores of the adjective checklist increased from 19.81 to 19.92, but the scores of their attitudes toward changing sports rules for people with a disability decreased from 17.89 to 16.86, however, these changes were not statistically significant. Girls' attitudes toward people with a disability tended to be better both before and after the intervention.

CONCLUSION: Generally, Paralympic School Day can change participants' attitude toward people with disability, but when the specific activities are arranged, we have to take the participants' features under consideration. In order to have a consistent influence, a long term duration of the intervention should be arranged.

Keywords: adapted physical activity, physical education, sledge hockey, inclusion.

INTRODUCTION

When we trace the origins of the Paralympic and modern Olympic movements, we find a significant difference in the primary philosophies behind the two different movements. Educational value has been regarded as the most important value in the Olympic movement since the father of modern Olympics brought back the Olympic Games.

However, along with the evolution of human society, changes in attitudes toward people with disability, and the increasingly closer relationship between the International Paralympic Committee (IPC) and the International Olympic Committee (IOC), the Paralympic movement's educational value has had much importance attached to it. Besides creating a fair chance for people with disabilities to participate in sports competition, the IPC also explored the educational value of the Paralympic movement and is implementing the educational programs for it.

Generally, there are two types of forms of Paralympic education. A Paralympic Game based program means that the IPC works closely with the Paralympic Games Organizing Committees to assist them in the creation and delivery of an education program leading up to and continuing during the Paralympic Games (IPC, 2004a). Another important Paralympic educational model is the school based program. Both Olympic education and Paralympic education places much emphasis on youth in a school setting. Sir Philip Craven, the President of the International Paralympic Committee, suggested that schools are the ideal environment to lay the foundations for a better world. Children do not inherently harbor prejudices. For them "disability", with the negative connotations that are often entrenched in adult society, does not exist, only ability (IPC, 2004b).

Paralympic education in school settings can be traced back to 1993 in the U.S.

Paralympic Day in the Schools (PDIS) was a 3 year grant project awarded to the Atlanta Paralympic Organizing Committee (APOC) by the U.S. department of education, the office of special education and rehabilitative services. PDIS was conducted throughout the school year in the Atlanta area. Middle and high school students with mobility and visual disabilities and their peers without disabilities participated together in Paralympic activities. They were aided in these activities by trained adult mentors (Whilhite, Mushett, Goldenberg, & Trader, 1997, 133).

The Paralympic School Day is an educational program initiated by the International Paralympic Committee (IPC). The aim of the program is to create awareness and understanding in schools about persons with a disability. It is a set of activities that educate youth about Paralympic sport, individual differences and disability issues in a fun and playful environment. These activities can be organized during a normal school day and target an audience of young students between the ages of 6 to 15.

In 2004, the IPC, in close collaboration with the European Paralympic Committee (EPC), initiated a two year PSD pilot project in Europe. The project was made possible thanks to a significant grant of the European Commission within the framework of its "JOINT ACTIONS" program, linking together the EU programs of Leonardo da Vinci, Socrates, Youth and Culture 2000 to encourage projects which do not belong exclusively to the categories of education, training or youth. The following six partner organizations from six different European nations cooperated with the IPC and EPC to implement this pilot project: a) Catholic University of Leuven, Belgium; b) Palacký University, Olomouc, Czech Republic; c) University of Koblenz, Germany; d) Aristotle University of Thessaloniki, Greece; e) Latvian Disabled Children's and Youth Sport Federation, Latvia; f) Swedish Development Centre for Disability Sport, Sweden (IPC, 2004b).

To change participants' attitudes toward people with a disability is one of the most important aims of Paralympic School Day. Historically, people with a disability were always a group being discriminated against. The lives of persons with disabilities were portrayed as pitiable, lacking in worth, amoral, and even violent (Phillips, 1990). Disability has also been a metaphor for illness, expressed by such traits as dependency, weakness, depression, vulnerability, and helplessness (Fine & Asch, 1988). The social act of charity was motivated by pity, as persons with disabilities were identified with their losses (Shields & Anderson, 2003).

In correspondence with the implementation of Paralympic School Day, some studies have been done in order to assess the effect of the program. In the study directed by Panagiotou, Evaggelinou, Doulkeridou, Mouratidou and Koidou (2008), 178 children were distributed into a control group (n = 92) and an experimental group (n = 86). The experimental group received a day program, the Paralympic School Day. CAIPE-R was used for collecting data about the children's attitudes. The results show a significant improvement in general attitudes toward including people with a disability in PE. Van Biesen, Busciglio and Vanlandewijck (2006) examined the attitudes of 196 students by using CAIPE-R. Results indicated that the PSD program did influence the attitudes of nondisabled primary school students on the inclusion of students with disabilities in PE. Lucas et al. (2006) evaluated 48 participants' attitudes between before and after Paralympic School Day intervention by using CAIPE-CZ and the adjective checklist. Result show that PSD had an effect on the attitude of the most children, but the effect was not too big.

The purpose of the study was to determine the influence of Paralympic School Day on the attitudes of school children toward people with a disability; to explore how to spread Paralympic education in school settings under different cultural conditions.

METHODS

Participants

The elementary school where Paralympic School Day took place in Ostrava was selected for research purposes. In the Hrdličky school, participants were from grade 6 in two classes, of which 40 children filled in the questionnaires before the intervention and 36 of them finished filling in the questionnaires after the intervention. A subject group of 36 children was selected as the focus of research. In the group, there are 17 boys (mean age 11.88 years ±0.49) and 19 girls (mean age 11.68 years ±0.48).

Intervention

Paralympic School Day in Hrdličky school started at 8:30 a.m. Three sessions were selected for participants. The school's court, gymnasium, multimedia classroom, and basketball gym were provided by the school as the location for different activities. Students were divided into 2 groups (corresponding with their two regular classrooms). First, a speech about the Paralympic movement and sport for people with a disability was given to 2 groups from 8:30 to 9:15. Then they went to different activities at the same time. After 45 minutes, the two groups switched.

The Paralympic School Day in Ostrava was held in preparation for the 2009 Sledge Hockey World Championship in Ostrava. A sledge hockey player from the Czech Republic was invited to give a short speech about his experience with Sledge Hockey.

Session one: Lecture on the topic of sport for people with a disability

In this part, videos of the summer and winter Paralympics, Deaflympics and the Special Olympics were shown students in order to let them get a general impression of sport for people with different disabilities. Lecturers made a speech after each video clip, and explained the differences among those activities. A sledge hockey athlete from the Czech Republic gave them a speech about his training and experience in the Para-

lympics. Students then asked questions about sport for people with a disability.

Session two: Boccia

In this session, students were taught the basic rules of boccia, told who plays boccia, and familiarized with the fundamental skills of boccia. Official boccia equipment was shown to them in this session. The general goal was for students to gain respect for those sporting abilities related to the precision and strategy requirements for the sport of boccia.

Session three: Wheelchair basketball

In this part, students were taught some of the basic rules and traits of wheelchair basketball. Then some drills were implemented in order for them to practice the fundamental skills for wheelchair basketball, such as shooting, passing and dribbling. After the drills, the students were divided into two teams to play a competition. The general goal in this session was for students to gain respect for the sporting abilities of wheelchair basketball athletes and achieve an understanding of what team sport in a wheelchair involves. Wheelchairs for wheelchair basketball were used in the session.

In the end, all participants, teachers, and presenters in the Paralympic School Day came together in the basketball gym or court. A wheelchair basketball competition between the school and the committee of PSD was organized for 15 minutes.

Instruments

We used questionnaire CAIPE-CZ (modified from CAIPE-R, Block, 1995) and the adjective checklist (Siperstein, 1980). According to Block (1995), the CAIPE-R is generalizable to more than one disability label and appears to be a valid and reliable instrument for measuring the attitudes of children without disabilities toward including children with disabilities in physical education. The original version of the CAIPE, a validated attitude survey with an internal reliability coefficient of 0.37, a test-retest reliability coefficient of 0.78 for the general attitude scale, and a 0.66 internal and 0.56 test-retest reliability coefficients for the sport specific scale, is designed to measure children's attitudes toward having students with disabilities in their regular physical education class (Block, 1996). Questionnaire CAIPE-CZ is the translation of the questionnaire CAIPE-EU, which is a modified version of the CAIPE-R questionnaire (Block, 1995).

Siperstein's (1980) adjective checklist was developed in order to assess children's judgments of the attributes of peers with disabilities. Thirty four adjectives (17 positive and 17 negative) are given. Children have to indicate which adjectives they associate with the child with an impairment. They can circle as many adjectives as they want. The total score is calculated by subtracting the number of negative adjectives from the number of positive adjectives and adding a constant of 20. A summary score below 20 indicates a relatively negative attitude and a score above 20 is associated with a positive attitude. The construct validity of the adjective checklist was established by means of two factor analyses (Siperstein, 1980). The first one was done with 2,000 children, ages 8 to 14, who used the checklist four times to describe three children with disabilities (mental retardation, emotional disturbance, and orthopedic disabilities) and their best friend. The second one was done with 770 children who used the checklist once to describe one randomly drawn target child with blindness, deafness, mental retardation, emotional disturbance, or orthopedic impairment. Alpha reliability coefficients for these two studies were 0.81 and 0.61, respectively. All participants completed the questionnaire "Children's Attitudes Toward Integrated Physical Education-Revised" (CAIPE-R) (Block, 1995) and the adjective checklist (Siperstein, 1980) within one week before and one week after the implementation of the program.

Data analysis

Preintervention data were collected within one week prior to and post intervention data within one week after the intervention. Statistics were calculated by using SPSS 11.5, both non parametric tests and parametric tests. The Wilcoxon paired sample T-test was used to compare the difference in participants' attitudes between preintervention and postintervention with a statistical significance value of $p \leq 0.05$. One way ANOVA was used was to analyze the influence of gender.

RESULTS

In elementary school Hrdličky, basic information about participants showed that 8 of them had a family member or close friend with a disability, 3 of them had a peer with a disability in their regular class, and none of them had a peer with a disability in their P.E. class. Most children (n = 25) were "kind of competitive", one of them was very competitive, and 10 of them were not competitive at all.

The results of the ascertainment of participants' attitudes from the questionnaire CAIPE-CZ are divided into two parts, because the questions 3 to 8 are for testing the attitudes of elementary school children towards the integration of a student who uses a wheelchair in physical education (PE) and questions 9 to 13 are aimed at testing the attitudes of elementary school children towards the adaptations of rules in basketball for the inclusion of a student who uses a wheelchair.

TABLE 1
Independent T-Test for attitude comparison between boys and girls

	Pre-test	Boys Post-test	Difference	Pre-test	Girls Post-test	Difference
Attitudes toward inclusion in PE						
M	15.76	15.82	0.06	18.37*	19.32	0.95
SD	4.51	4.81		3.29 .	3.67	
Attitudes towards changing the rules						
M	16.35	15.59	–0.76	19.26	18.00	–1.26
SD	6.83	7.79		1.56	1.86	
Checklist						
M	19.35	18.65	–0.70	20.21	21.05	0.84
SD	4.52	5.30		2.46	2.46	

Legend:
M – arithmetic mean
SD – standard deviation
*** p < 0.05 the difference is statistically significant**

TABLE 2
Wilcoxon Paired sample T-test for Comparison between pre and post intervention

		N	Mean rank	Sum of ranks
Attitudes toward inclusion in PE	Negative Ranks	9	11.78	106.00
	Positive Ranks	17	14.41	245.00
	Ties	10		
	Total	36		
Attitudes towards changes in the rules *	Negative Ranks	22	13.80	303.50
	Positive Ranks	5	14.90	74.50
	Ties	9		
	Total	36		
Checklist	Negative Ranks	14	12.14	170.00
	Positive Ranks	14	16.86	236.00
	Ties	8		
	Total	36		

Legend:
*** p < 0.05 the difference is statistically significant**

From TABLE 1, we can find that girls had more positive attitudes toward people with a disability than boys. The scores of girls' attitudes toward inclusion in PE were 18.37 before intervention and 19.32 after intervention, which were both better than the boys' scores. The differences in scores between boys and girls in preintervention were statistically significant ($p = 0.039$). The scores of the girls' checklist were 20.21 before the intervention and 21.05 after the intervention, which were better than the boys' scores. What's more, the scores of those girls' attitudes which increased after the intervention were higher than those of the boys.

By perusing TABLE 2, we can find out that 17 participants' attitudes toward inclusion in PE were changed positively, 9 participants' attitudes toward inclusion in PE were changed negatively, 22 participants' attitudes toward changing the rules for people with a disability were changed negatively, and 14 participants' scores of the checklist were changed positively. The results show that the intervention influences participants' attitudes toward inclusion in PE positively.

DISCUSSION

Paralympic education in school settings is a good idea for spreading the philosophy of the Paralympic movement. According to the firm belief and with the support of the IPC and EPC, the Paralympic School Day has already been implemented in some European countries for almost 5 years. It provides a really good example of how to organize a Paralympic education program in school settings. Many studies from different countries in Europe with respect to PSD have proven that this intervention can really play a positive role in improving participants' attitude toward people with disabilities.

Results of this study also reinforced the assumption that a Paralympic School Day can change participants' attitudes toward people with a disability positively (Ješina et al., 2006; Panagiotou et al., 2008; Van Biesen, Busciglio, & Vanlandewijck, 2006). In spite of the fact that only in some questions were the differences in attitudes statistically significant, the trends were positive in the cases of all questions. Participants were given speeches by experts and experienced different sports for people with a disability. An increase in familiarity with sports for people with a disability, positive feelings and information from experts together played an important role for this improvement. In the result, we also found that girls had more positive attitudes than boys did, no matter whether in pre or post intervention. In this case Fishbein (1996) speculated that girls were socialized to be more nurturing and responsible toward dependent individuals than were boys. There was a difference between girls and boys with respect to overall attitude scores toward peers with disabilities. Several researchers support the finding that girls have generally demonstrated more favorable attitudes toward peers with disabilities than have boys (Hazzard, 1983; Voeltz, 1982; Van Biesen & Vanlandewijck, 2006). Gender differences favoring females is also reported in attitude research with adults (Yuker, 1988).

Contrary to our assumption, attitudes toward adaptation of sports rules for people with a disability after intervention tended to decrease. The same phenomenon was found in Ješina et al. (2006) and Panagiotou et al. (2008). Although participants' attitudes toward inclusion in PE were changed positively through the intervention, they still did not want to change the rules of any game. A hypothesis for this decrease is that the participants had no idea about sport for people with a disability so they didn't know before what it would be like to change sports rules for people with a disability. However, after trying sport for the disabled, they felt that it was hard to play a game using the adapted rules, so they then felt unfavorable towards changing the rules. In the intervention, wheelchair basketball was chosen as the Paralympic sport to be tried out for participants, which was really hard for children aged from 11 to 12, because they can't shoot a basket from a sitting position.

Study limitations are as follows: a) the small number of participants as there was a total of 36 students participating in the study. In order to evaluate the program's effect better, more participants should be involved; b) the short time of the intervention: we arranged an intervention of only one day in duration. In order to have a long term effect, a longer duration of the intervention should be carried out; and (c) wheelchair basketball: we used wheelchair basketball for participants, but because of their ages, they can't shoot the basketball from a sitting position, which made them feel a little frustrated.

CONCLUSION

Generally, Paralympic School Day can change participants' attitude toward people with disabilities positively. However, contary to our assumption, participants' attitudes toward changing sports rules for people with a disability were changed negatively, which caused us to reconsider the criteria for choosing a suitable Paralympic sport in order to lead to a positive influence on participants attitudes' toward a change of the rules. Girls had a better attitude toward people with disabilities than boys before, during and after the intervention, which reinforces the validity of the results of previous studies. When the specific activities are arranged, we have to take participants' features into consideration. In order to have a consistent influence, longer term duration of the intervention should be arranged.

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VLIV PARALYMPIJSKÉHO ŠKOLNÍHO VZDĚLÁVACÍHO PROGRAMU NA POSTOJE K OSOBÁM SE ZDRAVOTNÍM POSTIŽENÍM

(Souhrn anglického textu)

CÍLE: Cílem práce bylo zjistit vliv paralympijského školního vzdělávacího programu na postoje k osobám se zdravotním postižením a analýza základů a teorií spojených s paralympijskými vzdělávacími programy.

METODIKA: Naší studie se účastnilo 36 žáků (17 chlapců, 19 dívek) ze základní školy A. Hrdličky v Ostravě. Ke zjišťování postojů jsme použili české verze dotazníků CAIPE-CZ a ADCL (Adjective checklist).

VÝSLEDKY: Postoje k začlenění žáků s postižením do školní TV se vlivem programu PŠD zlepšily z 16,50 na 17,25. Postoje k osobám se zdravotním postižením se zlepšily z 19,81 na 19,92, ale postoje ke změně pravidel v basketbalu se zhoršily z 17,89 na 16,86. Žádné z těchto změn však nebyly statisticky významné. Postoje dívek byly také pozitivnější než postoje chlapců před i po realizaci PŠD. Postoje dívek byly lepší před intervencí i po ní.

ZÁVĚRY: Paralympijský školní den má pozitivní vliv na postoje k osobám se zdravotním postižením, ale pro optimalizaci dopadu popsané intervence je potřeba modifikovat vlastní program s ohledem na věk a charakter účastníků. Pro prohloubení dopadu tohoto vzdělávacího programu doporučujeme prodloužit délku intervence.

Klíčová slova: aplikované pohybové aktivity, tělesná výchova, sledge hokej, integrace.

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