EFFECT OF AN INTERVENTION PROGRAM ON ATTITUDE OF ELEMENTARY SCHOOL CHILDREN TOWARD INCLUSION OF CHILDREN WITH A DISABILITY

Jesina Ondrej**; Lucas Sarah*; Kudlacek Martin**; Machova Iva**; Janecka Zbynek**; Wittmannova Julie**

* Student of Erasmus Mundus Masters degree program in Adapted Physical Activity at Faculty of Physical Culture, Palacky University Olomouc, Czech Republic and Faculty of Kinesiology and Rehabilitation Sciences, Catholic University Leuven, Belgium
** Faculty of Physical Culture, Palacky University Olomouc, Czech Republic

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Introduction

Education of children with disabilities changed drastically during the last century. In the beginning of the twentieth century, there was no support for children with disabilities in general education and if they were not able to follow the regular classes, they were send home without any education. Gradually special schools for children with specific disabilities arose, first for children with hearing and visual impairments and later for others. This was a very important step, although the schools were completely segregated and there was no opportunity to move to general education. Slowly people came to realize that nearly all children with disabilities could benefit from contact with their typically developing peers and that is why the ‘least restricted environment’ was introduced (Block, 2000; Sherrill, 2004). In addition, inclusion in physical education can help families to cope with the fact that their child has a disability (Sterbova, 2005).

Integration of persons with disabilities in physical education is influenced by the attitudes exiting in society. The formation of attitudes is a very complex process that is influenced by many factors, both personal and environmental (Sherrill, 1998). This is one of the reasons why there are many theories about changing attitudes.
available. Examples of these theories are contact theory, persuasive communication theory, social cognitive theory, reasoned action theory, and planned behaviour.

Attitudes of children without disabilities toward children with disabilities have been subject of many research and they have been found to vary widely. Some researchers reported no difference in attitude of children in mainstreamed and nonmainstreamed classes (Archie & Sherrill, 1989). Others found more positive attitudes in girls then boys (Fishbein, 1996; Slininger, Sherrill & Jankowski, 2000) and in children that have had experience with people with a disability before, for example a family member or a peer in their regular classes.

The Paralympic School Day (PSD) is a two-year educational project coordinated by the European Paralympic Committee. The aim of this project is to create awareness and understanding in elementary school about people with a disability (Kudláček & Machová, 2004). Experts in 6 European countries will develop a framework and program based on which such kinds of programs can be adopted and run in all Europe. The aim of this research is to evaluate if this intervention, PSD, can change attitudes of elementary school children toward peers with a disability and the inclusion of these children with an impairment in their regular classes.

Methods

Participants:

The Paralympic School Day took place in an elementary school in Czech Republic. Children belonged to 2 different classes, one fourth and one fifth grade class. They had to fill in both questionnaires before and after intervention. After removing subjects of which pre or post test was missing, a subject group of 48 children was left. This group consists of 27 boys and 21 girls, with a mean age of 10,70 and 10,67 years old respectively. Age ranges from 9 to 12 years old in both boys and girls.

Instruments:

*Czech version of Children’s Attitude Toward Integrated Physical Education-Revised (CAIPE-CZ) instrument created by Martin Block (1995): One of the questionnaires used in this research was the CAIPE-R. The original version, designed by Martin Block (1995) was adapted for the Czech children. This inventory was designed to assess attitudes of children in regular schools toward including children with*
disabilities in their physical education classes. To start with, the children get a description of a student with a disability, in this case physically impaired, read by the investigator. Afterwards 12 statements are made, 7 regarding including a child with disabilities in a regular physical education class and 5 regarding adaptations to a specific sport. The later are designed to measure the acceptance of modifications to a sport. Because the children in our research are still young, these sport specific statements were not used. Participants have to express their agreement or disagreement with the statements on a 4-point Likert scale (4 = yes, 3 = probably yes, 2 = probably no, 1 = no). The children had to fill in the questionnaire twice, once before and once after the intervention.

Adjective Checklist (Siperstein, 1980): The second instrument that was used, is the adjective checklist. It is based on the assumption that the choice of adjectives reveals opinions and feelings. Siperstein’s Adjective Checklist was developed to assess children’s judgments of the attributes of peers with disabilities. Thirty four adjectives, seventeen positive and seventeen 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 adjective from the number of positive adjectives and adding a constant of 20. A summary score below 20 indicate a relatively negative attitude and a score above 20 is associated with a positive attitude.

Intervention:

The intervention used in this research is the Paralympic School Day. This PSD took place in an elementary school in Olomouc. The day consisted of 4 main sessions with each 2 activities. The children were initiated in wheelchair and visually impairment mobility and after that they could try wheelchair basketball, goalball, boccia, athletics and handbike. To get to know the Paralympics sports, a video was shown and a discussion was held about these sports and their adaptations.

Results

Results of the CAIPE-R questionnaire showed that 11 children have a family member or close friend with a disability and 5 children have previous experience with a student with a disability in their regular and physical education classes. Most
children are ‘kind of competitive’ (33), 7 are very competitive and 8 are found being not competitive. To ensure that we can analyse all the participants in one group, a analysis of variance (ANOVA) was carried out. This analysis showed that there is no significant difference between and within groups for gender, family member with a disability, previous experience and competitive level. Wilcoxon Signed Ranks Test on the CAIPE-R questionnaire showed that thirty three kids made a positive change in attitude, 6 changed in a negative way and 7 did not have a change in attitude.

Descriptive statistics with repeated measurements ANOVA give a mean total score of 14.86 on the pre-test and 16.97 for the post-test. The difference between these 2 scores is significant (alpha = 0.00) and it has a medium effect size (partial eta squared = 0.366).

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<tr>
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<th>Freq (pre)</th>
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<td>7</td>
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<td>Weak (n)</td>
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(p) positive adjective
(n) negative adjective
Scores in the Siperstein Adjective Checklist range from 14 to 35. On the pre-test 29,2% of the participants had a negative score (19 or lower); 64,6% had a positive score (21 or higher) and 6,2% had a neutral score (20) of his attitude toward people with a disability. On the post-test these scores changed to 14,6%; 75% and 10,4% respectively. Mean scores were 22,55 (SD 4,99) on the pre-test and 24,21 (SD 5,09) on the post-test. Comparison between these scores with Wilcoxon Signed Ranks Test shows a positive change in attitude for 31 children and a negative one for 11 children. 6 children have no change in attitude after the intervention. The difference in mean scores between pre- and post-test is significantly different (alpha = 0,007), but the effect size is small (0,143).

Table 1 indicates how many children associated an adjective with the child with a disability, before and after the intervention. The frequency of most adjectives did not really change. For the negative adjectives, only 2 adjectives had a change in frequency of more than 5 (unhappy and sad). On the post-test, 4 positive adjectives had an increase in frequency of more than 5 (bright, clever, alert and cheerful).

Discussion

In order to change behaviour toward people with disabilities, attitudes existing in society have to be changed. This study tried to find out if an intervention is able to do this. Is it possible to change the attitude of children in elementary school toward peers with a disability by offering them a Paralympic School Day?

From the results of this study we can conclude that the intervention has an effect on the attitude of most children, but the effect is not that big. The same finding was reported with the Adjective Checklist. When comparing the results of the pre- and post-test, we see that 31 children had a positive change in attitude. This means that these children associated more positive adjectives with the child with a disability after the intervention than before.

The sample size in this research is not really large. To be able to know if a distribution of answers is a normal one, the number of participants should be larger. Another limitation is that we did not use the entire CAIPE-R questionnaire. Because some of the children in the sample are not that old and might not understand, we decided not to use the sport-specific statements in the questionnaire. This might have an influence on the total score of the questionnaire and therefore on the attitude score. The CAIPE-R was validated for children of 5th grade or older, but some of the
children in the sample were only 9 years old. Therefore it is not known if their answers are valid. The age difference is only one year so we have used their answers in our results. The aim of this research was to look at the effect of the Paralympic School Day on attitudes children in elementary school have about inclusion of peers with a disability. On the basis of results of 2 questionnaires, we can conclude that the attitudes of most children toward people with a disability change. The change in attitude is significant, although it is rather small.

References
Block, M.E. (1992). What is appropriate physical education for students with the most profound disabilities? *Adapted Physical Activity Quarterly*, 9, 197-213.


