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Elementary school children's behavior towards the inclusion of peers with disabilities, in mainstream physical education classes

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Abstract

The aim of this study was twofold: to investigate a) possible differences between boys and girls and b) within groups' differences in regards to their general and modified behavior towards the involvement of schoolmates with disabilities, in their mainstream physical education classes. Participants were 168 primary grade school children; 76 boys and 92 girls, between 10 to 12 years of age ($M=11.15$, $SD=.70$), who completed the Greek version of the Children's' Attitudes towards Inclusion in Physical Education-Revised questionnaire (CAIPE-R). Results indicated only within groups differences; both boys and girls showed higher (more positive) modified behavior on collaborating with a school-mate with disability in the physical education lesson.

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1. Introduction

The idea of including students with disabilities into a general education classroom has become predominant in many countries over the past years. Inclusion has been identified as placing students with disabilities in mainstream classes, including physical education, and educating them with their non-disabled peers (Block, 2000, 2007; Murata, Hodge, & Little, 2000). Specifically, inclusion focuses on increasing participation in learning by all students so that their educational needs can be met (Barton, 1998; DePauw & Doll-Tepper, 2000). When inclusive educational

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practices are implemented, students with disabilities who attend schools can receive educational services with their peers without disabilities in their general education classes (Hunt & McDonnell, 2007). Under this line of work, school societies try to support full participation of students with disabilities in all areas of their lives on equal terms and conditions (Campbell & Gilmore, 2003).

In line to the inclusion policy, Greek government voted the Public Law 2817/2000. Based on this law, a child with disabilities can study in an ordinary school class with parallel support by the special education teacher or in specifically organized and appropriately staffed classes of inclusion, which function in the schools of mainstream and technical professional education.

Teachers, parents, students and administrators are the critical stakeholders in the movement to create inclusive schools (Hunt & McDonnell, 2007). Inclusion in general schools has many benefits both for students with and without disabilities. According to recent studies, students with disabilities have the same possibilities and opportunities to participate as non-disabled counterparts in school and social events (Mrug & Wallander, 2002). Students without disabilities learn to approach children with different characteristics, develop empathy and acceptance of individual children's differences (Bebetos, Derri, Zafeiriadis, & Kyrgiridis, 2013), become more aware and more responsive to other children's needs (Peck, Carlson, & Helmstetter, 1992), and learn more about persons with a disability (Qi & Ha, 2012). Finally, inclusive education gives the opportunity for the development of positive attitudes of students without disabilities toward peers with disabilities (Mrug et al., 2002). However, Rimmer and his colleagues (2009) in their research underpinned that only 40% of children with physical disabilities and 77% of children with mental disabilities felt that they had the opportunity for equal participation as other students, in a mainstream physical education class.

Researchers (Sherrill, 2004; Theodorakis, Bagiatis, & Goudas, 1995) considered attitude as the key-point in changing behavior towards people with disabilities. Also, according to Sherrill (2004), courses like music, art, and physical education can establish an appropriate and suitable environment for integrating students with disabilities into mainstream schools. Particularly physical education with a socially structured environment is considered unique in developing all students' social attitudes and behaviors as these are pre-determined in its social goals and objectives (Derri, 2007; Ministry of Education, Lifelong Learning and Religious Affairs, 2011).

The results of studies that examined the effect of adapted physical education programs on regular students' attitudes on integration of classmates with disabilities in their physical education class are mixed. Specifically, some studies indicated that students showed more positive attitudes/behaviors (Loovis & Loovis, 1997; Obrusnikova, Valkova, & Block, 2003), while others yielded that students had more negative attitudes/behaviors for the inclusion of children with disabilities in the physical education class, after participating in an intervention program (Ellery & Rauschenbach, 2000). In Greece, similar studies showed that application of such program(s) could improve students' attitudes/behaviors towards inclusion of disabled peers in regular physical education classes (Kippers & Bouramas 2003; Panagiotou, Evaggelinou, Doukeridou, Mouratidou, & Koidou, 2008). Additionally, past research on gender differences, has identified foster findings, i.e. girls had more positive attitudes/behaviors than boys towards individuals with disabilities (Tripp, French, & Sherrill 1995; Slininger, Sherrill, & Jankowski, 2000).

However, no study, to our knowledge, examined how children illustrate general and modified behavior in regard to physical education which is considered ideal for children's social development when its environment is socially structured. Therefore, this study was conducted in an attempt to investigate: a) possible differences between boys and girls and b) within groups' differences, in regards to their general and modified behavior towards the involvement of schoolmates with disabilities, in their mainstream physical education classes. It was hypothesized a) that girls would illustrate better general and modified behavior than boys, and b) that both genders would have better general than modified behavior towards their schoolmates with disabilities.

2. Method

2.1 Participants

The sample consisted of 168 primary grade school children; 76 boys and 92 girls, between 10 to 12 years of age ($M=11.15$, $SD=.70$) (Table 1).

Table 1. Participants' Descriptive Characteristics

Sex	N	Age	Grade
Boys	76 (45.3%)	10	5 th
Girls	92 (54.7%)	11	6 th
		12	56 (32.6%)

2.2 Instrument

Students completed the Greek version of the Children's' Attitudes towards Inclusion in Physical Education – Revised questionnaire (CAIPE-R) (Panagiotou, 2006). Before completing the questionnaire, students were introduced to a hypothetical scenario: “Before we begin I would like to talk to you about a child whose name is John. John has the same age as you. But he has moderate mental retardation and therefore he cannot be taught things and learn them as fast as you can. Because he has moderate mental retardation, he cannot speak very clearly and that is why it is sometimes difficult to understand what he says. John likes to play the same games you play when you exercise, but he is not very good at these games. Although he can run, he is slower than you and gets tired easily. He likes football but he cannot kick the ball very well. He also likes basketball but he is not very good at shooting and dribbling the ball and he cannot understand the rules of the game very well”.

The (CAIPE-R) questionnaire consists of eleven questions that concern General and Modified Behavior. Specifically, *General Behavior* is measured with six questions (e.g., “It would be OK having John come to my Physical Education class”), whereas the remaining five questions concern *Modified Behavior* (e.g., “If you were playing basketball would you be willing to make a pass to John?”). A 4-point Likert type scale, from 1=no to 4=yes, was used. At the end of the questionnaire, students were asked to indicate their sex, age and grade. Responses were given in a numerical format. Their participation was voluntary.

3. Results

3.1 Independent samples T-test analysis

To check whether there were statistically significant differences between boys and girls on their general and modified behaviors, T-tests for independent samples were conducted. The results indicated no statistically significant differences between genders (Table 2).

Table 2. Gender comparison on behavior

	t	df	p
Behavior	.502	166	.113
Modified Behavior	-1.570	168	.328

3.2 Paired Sample T-test analyses

To check whether there were statistically significant within group differences on general and modified behavior, Paired Sample T-tests, were performed. Results indicated that both boys and girls showed higher/greater (more positive) modified behavior than general behavior (Table 3).

Table 3. Within groups behavior differences

Boys	M	SD
General Behavior	2.96*	.42
Modified Behavior	3.16*	.47
Girls	M	SD
General Behavior	2.94**	.43
Modified Behavior	3.23**	.51

* ** statistically significant differences within a gender group ($p < .01$)

4. Discussion and Conclusion

The aim of this study was twofold: to investigate a) possible differences between boys and girls and b) within group differences in regards to their general and modified behavior towards the inclusion of schoolmates with disabilities, in their mainstream physical education classes.

Although, girls' behavior means were higher than boys' (similar findings), no statistically significant sex differences were found. On the contrary, past literature pointed out that generally girls had more positive behaviors than boys towards individuals with disabilities. More specifically, according to Tripp et al. (1995) and Slininger et al. (2000), girls have more favorable attitudes than boys toward peers with disabilities. Fishbein (1996) suggested that girls are more responsible than boys towards individuals with disabilities. Similarly, other studies examining attitudes/behaviors of pre- and in-service physical educators towards general disability topics, like teaching students with disabilities, verified that girls illustrated more positive attitudes/behaviors on collaborating with disabled individuals compared to boys (Downs & Williams, 1994; Papadopoulou, Kokaridas, Papanikolaou, & Patsiaouras, 2004). In Greece, in line to the above findings, research results pointed out girls as more responsible toward individuals with disabilities than boys (Kalyvas & Reid, 2003; Kalyvas, Koutsouki, & Skordilis, 2011). These findings are also in accordance with the results of Panagiotou et al., (2008).

Similarly, the results of the present study did not support previous ones on the subject of general versus modified behavior. Specifically, both boys and girls in our study showed better modified than general behavior towards disabled peers. We suspect that children in our study placed more emphasis on having fun through the game rather than on winning. In contrast, previous researchers argued that children don't agree with the rules on adaptation in sports (Kalyvas et al., 2003) probably because such rules distract them from high levels of competition and challenge. Thus, although children without disabilities wanted peers with disabilities to participate in their P.E. classes but they didn't want them as teammates (Qi & Ha, 2012). Thus, researchers supposed that this occurred due to the desire of children to have powerful teammates in order to increase their possibilities to win the game. In addition, results of two more studies indicated negative attitudes/behaviors on sport-specific attitudes/behaviors (Jesina et al., 2006; Van Biesen, Busciglio, & Vanlandewijck, 2006).

Current findings demonstrate that Greek physical education students seem to be ready to accept the proposed physical education curriculum reform (Ministry of Education, Lifelong Learning and Religious Affairs, 2011) which includes, among others, social goals and objectives that should be achieved by all students. Therefore, physical education teachers should evaluate students, and take into account their opinion/behavior during planning and teaching in order to provide all students with appropriate learning experiences. Students' specific training could generate more positive general (Vickerman, 2007) and modified behaviors towards their peers. Also, these findings could provide assistance to students' educating process in order to develop and perform appropriate behaviors towards their co-existence with peers with disabilities in mainstream physical education classes. Based on the above contradictory findings, further research is required to address male and female students' attitudes and behaviors towards children with disabilities in physical education, particularly in game settings, and to improve them through appropriate learning experiences.

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