DISABILITY AWARENESS PROGRAM IN A SUMMER CAMP

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The aim of the present study was to examine the impact of a disability awareness program on attitudes of children without disabilities toward the inclusion of peers with disabilities in a summer camp. Three hundred eighty seven campers without disabilities attending a non-inclusive summer camp participated in the study. Participants were divided into control (n = 190) and experimental group (n = 197). The control group followed the camp’s program, while the experimental group attended a disability awareness program alongside to the camp’s regular program. Participants completed twice the “Children’s Attitude towards Integrated Physical Education – Revised” (CAIPE-R). CAIPE-R consists of two subscales: general and sport-specific. The results of the 2 X 2 repeated measures analysis of variance revealed statistical significant differences on the experimental group, both in general and in sport-specific attitudes subscales. These findings imply that participation in a disability awareness program can have a positive influence on children’s attitudes towards the inclusion of children with disabilities in summer camps.

Keywords: inclusion, disabilities, peer attitudes, summer camps, disability awareness program

INTRODUCTION

A basic premise of inclusive education is that placing children with disabilities into regular schools will break down negative stereotypes towards children with disabilities (Mrug & Wallander, 2002). This is expected to result in the development of more positive attitudes of children without disabilities toward peers with disabilities (Obrusnikova, Block & Dillon, 2010; Tripp, Rizzo & Webbert, 2007). Attitudes can be defined as a person’s degree of favorableness or non-favorableness with respect to a psychological object or evaluation of an object, concept, or behavior along a dimension of favor or disfavor, good or bad, like or dislike (Allport, 1935). They can indicate the tendency to either approach or avoid the behavior at hand. Approaching or avoiding this behavior will, in turn, evoke new attitudes about this behavior. The attitude-behavior relationship can be conceptualized as a continuous circle with change occurring in both directions.

There is ample evidence on attitudes suggesting that they reflect a key construct in changing the behavior toward individuals with disabilities (Obrusnikova, Dillon & Block, 2009; Sherrill, 2004). For instance, past evidence implied that positive attitudes can largely shape a positive approach toward sharing space and activities between children with and without disabilities (Slininger, Sherrill & Jankowski, 2000). Siperstein, Parker, Norins, and Widaman (2007) proposed that inclusive education, consisting of equal participation of children with and without disabilities in activities, would assist in the establishment of positive attitudes and would foster social interactions.

The majority of research on inclusion has been conducted mostly in school settings, since physical education is among the school disciplines which offer an important venue towards promoting inclusion of children with disabilities (Evaggelinou, 2006). Physical education’s scope favors inclusion by creating opportunities where all children can learn, live and play together (Valkova, Hansgut & Novackova, 2010). In addition physical education can foster inclusion by providing opportunities a) for social interaction through physical activities between children with and without disabilities (Connor & Ferrari, 2007; Riehl, 2000), and b) for implementation of a disability awareness program as part of the curriculum.

Physical education is a key area within the school curriculum which provides opportunities for students to achieve, through
physical activities, objectives such as inclusion, cooperation, interaction and solidarity (Sherrill, 2004).

Recent evidence indicated that children have positive attitudes toward the inclusion of peers with disabilities in physical education classes (Hutzler & Lewi, 2008; Campos, Nobre & Ferreira, 2010). Although, inclusion provides opportunities for social interactions between children with and without disabilities, current studies support adverse effects on attitudes of children without disability towards peers with disabilities (Goodwin, & Watkinson, 2000). More specifically, Ellery and Rauschenbach (2000) and Korologou, Barkoukis and Tsorbatzoudis (in press) argued that when children with disabilities were included in the physical education classes, attitudes of children without disabilities toward the inclusion of peers with disabilities actually declined over time. Korologou et al. (in press) attributed these findings to the physical educator’s inability to modify the inclusive program to the appropriate level for all participants. Consequently, children without disabilities as time goes by lose interest in activities that they are not competitive and challenging for their abilities.

With respect to disability awareness programs, there is ample evidence indicating that information, knowledge and awareness are key factors in the establishment of positive attitudes towards children with disabilities (Jesina, et al., 2006; Liu, Kudlacek & Jesina, 2010; Panagiotou, Kudlacek & Evaggelinou, 2006; Panagiotou, et al., 2008; Rillotta & Nettelbeck, 2007; Siperstein et al., 2007; Van Biesen, Busciglio & Vanlandewijck, 2006, Xafopoulos, Kudlacek, & Evaggelinou, 2009). The Education Committee of the International Paralympic Committee and Special Olympics Committee recognized the value of disability awareness programs and developed the “Paralympic School Day” (IPC, 2006) and “So Get into It” (Kennedy, 2011), respectively. Information and project activities in these two programs offer opportunities to children learn about the Paralympic and Special Olympic Games and become aware of athletes’ with disabilities unique abilities. More specifically, Van Biesen et al. (2006) and Jesina et al. (2006), who implemented the “Paralympic School Day” program, indicated a positive effect on general attitudes of students from a primary school, aged 8 to 13 years old.

Obrusnikova et al. (2010) examined elementary and middle school students’ attitudes toward the inclusion of a hypothetical peer with a disability in general physical education classes. Results revealed students’ beliefs were generally positive toward playing with a hypothetical peer with a disability in general physical education classes. Previous studies examined students’ attitudes after the implementation of other awareness physical education programs focused on disability (Ellery & Rauschenbach, 2000; Kalyvas & Reid, 2003; Loovis & Loovis, 1997; Magouritsa, Kokaridas, Theodorakis, 2005). Results indicated that in countries where Special Olympic and Paralympic Games have taken place, students had positive attitudes toward children with disabilities. Awareness programs affected children’s attitudes positively toward the inclusion of children with disabilities in general physical education classes and recreation activities (Place & Hodge 2001; Townsend & Hassall 2007). On the other hand, there is not supportive evidence of the positive effect of the disability awareness programs on attitudes of children without disabilities towards peers with disabilities (Wilhite, Mushett, Goldenberd, & Trader, 1997).

Overall, it seems that inclusion in a formal and mandatory setting where specific goals (i.e., academic achievement) should be achieved may not always be effective in developing positive attitudes (Goodwin, & Watkinson, 2000; Korologou et al. in press). Inclusion of children with disabilities may hold back the class and make the lesson less challenging and interesting. Perhaps a less competitive recreational environment involving physical activities would offer a more appropriate setting to influence attitudes towards disabilities. Indeed, Block and Malloy (1998) reported that softball players’ and parents’ attitudes towards inclusive participation in a recreational setting and rule modification were generally favorable. Similarly, Magouritsa, Kokaridas, Theodorakis (2005) reported positive attitudes of junior high school students towards inclusion of peers with mild intellectual disability in a softball recreation activity.

Summer camps are recreational settings, in which children have the opportunity to participate in activities and games with peers on a daily basis, foster inclusion and develop
close relationships (Thurber, Scanlin, Scheuler, Hederson, 2007). Finch (1998) reported that children who had the experience of contact with peers with disabilities in an inclusive camp demonstrated more positive attitudes compared to those who were attending a non-inclusive camp. Siperstein, et al. (2007), interviewed children and staff regarding the impact of a Special Olympics’ program in five multi-week days, in an inclusive atmosphere where children with and without intellectual disabilities participated together in physical activities. The results showed that this program provided the participants with information and knowledge on intellectual disability. More recently, Hutchison, Mecke and Sharpe (2008) examined the success of an eight-week inclusive camping program. Each week three to five children with a disability attended the camp and stay together in the same cabin with approximately ten other children without disabilities. All the campers participated in the activities of the camp such as cabin clean-up, swimming, canoeing, basketball and spiritual sessions. Results of participants’ observation, document analysis and interviews revealed attitudes of children without disabilities toward the inclusion of peers with disabilities in the summer camp were more positive during the end of the week.

Research in recreational settings has consistently shown that inclusion results in the formation of more positive attitudes towards disability. However, there is no past evidence investigating the effect of awareness programs in camp settings. Having in mind that it is rather difficult to organize inclusive contexts in all summer camps, disability awareness programs might provide a meaningful alternative for influencing children’s attitudes towards disability. Thus, the purpose of the present study was to examine the impact of a three-week disability awareness program on attitudes of children without disabilities toward the inclusion of peers with disabilities in a non-inclusive summer camp. Based on prior research in physical education and recreational settings, it was hypothesized that the disability awareness intervention program would result in more positive attitudes towards disability.

METHOD

Participants

The sample of the study consisted of 387 campers (Mage =13.25 years old, SD = .97), from a non-inclusive summer camp in Northern Greece. The campers have been divided into two groups, an experimental group (n = 197, Mage = 13.08 years old, SD = .98) that attended an awareness program, and a control group (n = 190, Mage =13.43 years old, SD = .93) attending the regular program of the summer camp.

MEASURE

Children’s Attitudes towards Inclusion in Physical Education (CAIPE-R; Block, 1995), was used to measure children’s attitudes. The CAIPE-R consists of (a) the presentation of a hypothetical scenario where a child with a physical disability participated to the summer camp, (b) eight statements about including the above child in a non-inclusive summer camp (general attitude subscale), and (c) five statements about modifying rules of sports (sport-specific attitude subscale) in order for this child to be able to participate. Children respond to each statement using a 4-point Likert scale (4 = yes, 3 = probably yes, 2 = probably no, and 1 = no). Internal consistency of the subscales in the present study was satisfactory (α = .71 for general attitude and α = .68 for sports-specific attitude). A composite score for each subscale was computed (i.e., general attitudes and sport-specific attitudes) with higher scores reflecting higher attitudes towards children with disability (Block, 1995). The adapted Greek scale includes basketball instead of baseball as the referent sport in the sport-specific subscale (Panagiotou, 2006). Basketball was used over the other activities of the camp as it was among the main activities of the camp, and adaptation of the scale into other cultural settings used this sport as the better alternative to baseball. In addition, basketball is among the most favorable sports in Greece, with all children of the sample being familiar with this sport and, thus, being able to think of a game with the inclusion of peers with disabilities.

Disability awareness intervention program

The disability awareness program of this study was based on principles and activities of
the “Paralympic School Day” (PSD) and the “So Get into It” programs, aiming in increasing awareness and providing information about children with disabilities. The disability awareness program involved a range of activities that educated young people about the Paralympic and Special Olympic Sports, individual differences and disability issues in an enjoyable and playful environment. More specifically, the program included disability simulation sport activities, information about Paralympic and Special Olympic Games using lectures and video presentations and art activities with topics related to the Paralympic and Special Olympics sports, athletes, equipment.

The disability awareness program included ten activities: (1) Human Rights; (2) Information about Paralympic and Special Olympic Games; (3) Boccia; (4) Classification; (5) Sitting Volleyball; (6) Bocce; (7) Accessibility games; (8) Swimming; (9) Wheelchair Basketball; and (10) Drawing. The experimental group was divided in 10 sub-groups of approximately 20 children/per group. Each sub-group of children participated every day in all the above mentioned activities. Each activity lasted for 35 minutes and children rotated to the next activity until the completion of all ten activities (Table 1). The disability awareness program was implemented by the first (Phd Candidate in Adapted Physical Activity) and the second author (Professor in Adapted Physical Activity) who specialized in disability awareness programs (Paralympic School Day in Greece) with the assistance of ten adapted physical activity undergraduates from the Department of Physical Education and Sports Sciences-Serres. The participants had the opportunity through the disability awareness program to become aware of the personal uniqueness of individuals with a disability, to become familiar with different disabilities and the Paralympic and Special Olympic Games (i.e., rules, adaptations and regulations of the events, famous athletes, equipment and actual participation in the events).

**TABLE 1.**

Disability Awareness Program: One day schedule

<table>
<thead>
<tr>
<th>Morning (10:00-13:15)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 2. Information about Paralympic and Special Olympic Games (videos, photographs, discussion)</td>
</tr>
<tr>
<td>Group 5. Sitting Volleyball (information, basic rules, practice)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Afternoon (17:00-20:15)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1. Bocce (information, basic rules, practice)</td>
</tr>
<tr>
<td>Group 2. Accessibility games (special design course included accessibility and not accessibility pathways)</td>
</tr>
<tr>
<td>Group 3. Swimming (experience as a Paralympic and Special Olympic athlete)</td>
</tr>
<tr>
<td>Group 5. Drawing (Paralympic and Special Olympics games, athletes, equipment)</td>
</tr>
</tbody>
</table>
PROCEDURE

The author received approval from the University’s Ethics Committee prior to the implementation of the study and a written permission was granted from the camp directors. In addition, parents signed relevant Informed Consent regarding their child’s participation in the study. Upon the arrival of the campers, the Camp’s personnel were informed about the aim of the study and their role in the program, and consent was obtained for their assistance in the study’s activities. During the second day the pre-intervention measurement of attitudes was held. In the next 20 days the activities of the program were implemented to the experimental group. Children in the control group attended the regular activities of the camp such as swimming, drawing, dancing, basketball, volleyball, football, extreme-sports, handball, beach-volley, cooking. A day before departure the post-intervention measurement was held. In both measurements the questionnaires were administered during midday recess at children’s cabins by the camp’s personnel. The entire procedure was supervised by the researchers. Both oral and written instructions were provided to children. All participants were reassured about the confidentiality of their responses and their right to withdraw if they wish so.

Data Analysis

A 2X2 repeated measure analysis of variance was used to examine the effects of the awareness program on children’s general and sports-specific attitudes (group X pre-post measure). The statistical significance level was set at p < .05.

RESULTS

Participants reported positive attitudes toward the inclusion of peer with physical disability. The correlations between the attitudes’ dimensions were moderate to high in both measurements (r > .79). Descriptive statistics of the study’s variables in both measurement points are presented in Table 2.

The results of the analysis of variance with repeated measures (Group X Time) revealed significant main effects for Group, (F (1, 385) = 118.08, p < .001, partial η² = .23), but not for Time, (F (1, 385) = 2.47, p > .05, partial η² = .01). With respect to Group, participants in the experimental condition revealed higher scores (M = 3.01) as compared to those in the control condition (M = 2.69). In addition a significant Group by Time interaction on general attitudes’ dimension, (F (1, 385) = 24.32, p < .001, partial η² = .06), was found. The general attitudes of the participants in the experimental condition were improved from pre-intervention (M = 2.92) to post-intervention (M = 3.09), whereas those of the control group remained stable across the two measurements (M = 2.73 in the pre-intervention and M = 2.65 in the post-intervention; see Figure 1).

TABLE 2

Descriptive statistics of the study variables

<table>
<thead>
<tr>
<th></th>
<th>Pre-intervention</th>
<th>Post-intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td><strong>General Attitudes</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>2.73</td>
<td>.50</td>
</tr>
<tr>
<td>Experimental</td>
<td>2.92</td>
<td>.34</td>
</tr>
<tr>
<td><strong>Sport-Specific Attitudes</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>3.07</td>
<td>.70</td>
</tr>
<tr>
<td>Experimental</td>
<td>2.99</td>
<td>.56</td>
</tr>
</tbody>
</table>
Disability awareness program in a summer camp
With respect to sport-specific attitudes, the results of the analysis of variance with repeated measures (Group X Time), revealed significant main effects for both Time, $F(1, 385) = 136.75, p < .001$, partial $\eta^2 = .26$, and Group, $F(1, 385) = 28.82, p < .001$, partial $\eta^2 = .07$. With respect to Time participants in the pre-intervention demonstrated lower scores ($M = 3.03$) as compared to the post intervention ($M = 3.41$). Regarding Group, participants in the experimental group reported higher scores ($M = 3.03$) as compared to those in the control group ($M = 2.99$). In addition, a significant Group X Time interaction was found, $F(1, 385) = 117.60, p < .001$, partial $\eta^2 = .23$. Participants in the experimental condition reported an increase of their sport-specific attitudes in the post-intervention ($M = 3.72$) as compared to the pre-intervention ($M = 2.99$). On the other hand, the sport-specific attitudes of the participants in the control condition remained stable ($M = 2.99$ in the pre-test and $M = 3.1$ in the post-test; Figure 2).

**DISCUSSION**
The present study investigated the effect of a disability awareness program in a recreational setting on the attitudes towards children with disability. The results of the analysis supported the hypothesis about the positive effect of the disability awareness program on the general and sports-specific attitudes of children without disabilities towards the inclusion of peers with disability in a summer camp.

With respect to the general attitudes, the findings of the study revealed positive changes on attitudes after the implementation of the disability awareness program which was organized in a recreational setting. These findings are in accordance with past evidence in education settings suggesting that programs including information, and group discussions about disability can influence the attitudes of children without disabilities (Hutzler et al., 2007; Magouritsa et al., 2005; Townsend & Hassal, 2007). Similarly to previous research (Finch, 1998, Hutchison, et al., 2008; Siperstein, et al., 2007) the findings of the present study indicated that these activities can be also effective in recreation settings. In settings such as summer camps, children have the opportunity to participate in diverse activities, for example physical activities and games, art and literature, in a relaxed environment that promotes social interaction and development of close interpersonal relationships. Thus, interactive group discussions and watching videos focusing on positive images of people with disabilities are easy to apply in such settings and seem to be effective in developing positive attitudes towards peers with disabilities. The way activities were delivered was thought to be an important element of the intervention resulting in the promotion of general attitudes (Liu et al., 2010). The research team members were active participants in the intervention inspiring children by initiating interactive discussions, organizing video watching and book reading, and familiarizing children with sports for people with disabilities.

In addition, positive changes in sport-specific attitudes were found in the present study. The disability awareness program in this study was a multi-faceted program consisting of physical disability simulation, physical activities through non-competitive games, information through videos about individuals with disabilities. It seems that the combination of these activities was effective in promoting positive sport-specific attitudes.

Taking into account previous research in education settings suggesting a decrease in sport-specific attitudes, after an intervention program (Korologou et al., in press), the current findings are very important. Unlike school settings, where emphasis is on the attainment of academic goals, summer camps provide a unique experience emphasizing less-competitive sports, social interaction, and having fun. In school physical education the adaptation of games which allow students with disabilities to participate could result in making them less challenging, too easy, not competitive and different from what students were used to (Kalyvas & Reid, 2003; Korologou et al., in press). Kalyvas and Reid (2003) reported that some children, particularly older males (10 to 12 years old) did not enjoy adaptation rules as it would distract them from competition and challenge. Although, students wanted peers with disabilities to be in their physical education classes (i.e., positive general attitudes), they did not necessarily want them as teammates.

However, this was not the case in our study. The disability awareness program was effective in promoting sports-specific attitudes of children attending a summer camp. It seems that, contrary to physical education classes, children in summer camps perceived the simulated games as a new challenge to achieve. Changing the rules of a game to fit better the needs of peers with disabilities was probably perceived as a new game that should be acquired. Hence, a less competitive recreational environment involving physical activities would offer a more appropriate setting to influence attitudes towards disabilities compared to inclusion in a formal and mandatory setting where specific performance goal are highly appreciated. Summer camps are a typical life experience for children and young people as they can learn new skills, build friendships, and experience personal growth. Thus, the emphasis is placed on having fun and be a member of a team, rather than win a game or demonstrate superiority. In such settings, simulation of games and physical activities used by peers with disabilities seems to promote sport-specific attitudes.

Although the present study offers intriguing findings, is not free of limitations. One limitation is the lack of a follow up
measurement to test for the retention effects of the intervention. Clearly a longitudinal design would provide further evidence on the stability of the intervention effects. Maybe, the effects of the intervention will fade out after a period of time. Having in mind that summer camps are held for short periods of time, this implies that disability awareness programs should also be implemented in other settings (i.e., school, leisure-time etc) to retain the benefits of activities throughout the year. In this respect, the role of parents and care givers is important. Thus, future interventions should target in the promotion of parents' and care givers' attitudes towards people with disability too. The current study was also limited in that it did not include contact between children with and without disabilities. Future research would benefit from the inclusion of peers with disabilities in a non-inclusive summer camp.

Overall, the findings of the present study indicated that a disability awareness program employed in a recreational setting effectively increased both general and sport-specific attitudes towards peers with disabilities. The program used in the present study combined elements of the “Paralympic School Day” and “So Get Into It” and involved a wide range of recreational activities targeting both general and sport-specific attitudes and delivered in playful and enjoyable way. This and similar programs are recommended to be implemented in recreational and educational settings as they can be effective pedagogical tools towards increasing awareness and developing positive attitudes towards individuals with disabilities.

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