THE EFFECT OF A DISABILITY CAMP PROGRAM ON ATTITUDES TOWARDS THE INCLUSION OF CHILDREN WITH DISABILITIES IN A SUMMER SPORT AND LEISURE ACTIVITY CAMP

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The aim of the present study was to examine the impact of a specific Disability Camp Program (DCP) in the attitudes of children without disabilities toward the inclusion of children with disabilities in a summer sport and leisure activity camp. Three hundred eighty-seven campers without disabilities participated in the study and were divided into control (n = 190) and experimental groups (n = 197). The control group followed the camp’s regular program, while the experimental group attended a DCP in addition to the camp’s regular program. All participants completed the Attitudes Towards Integrated Sports Inventory (ATISI), (Block & Malloy, 1998) twice: just before and immediately after their participation in the DAP. ATISI consists of two subscales: general and sports-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 attitude subscales. These findings imply that participation in this particular DCP can have a positive influence on children’s attitudes towards the inclusion of children with disabilities in summer sport and leisure activity camp.

Over the past decade, the inclusion of children with disabilities in regular schools has become a global trend (DePauw & Doll-Tepper, 2000). A basic premise of the inclusion philosophy is placing children with disabilities into regular schools will break down negative stereotypes towards children with disabilities. The concept of inclusion has been the subject of significant discussion and debate among professionals in the adapted physical activity domain (Block & Obrusnikova, 2007; Goodwin & Watkinson, 2000; DePauw, et al., 2000).

Studies have revealed that the majority of children with disabilities seem to function well in physical education classes, while other studies have pointed out that there are some difficulties to obtain acceptance, social contact and inclusion (Bramston, Bruggerman, & Pretty, 2002; Chamberlain, Kasari, & Rotheram-Fuller, 2007; Goodwin & Watkinson, 2000; Kuhne & Wiener, 2000; Pijl, Frostad, & Flem, 2008). Some argued that these difficulties are caused by personal and environmental factors. Attitudes of classmates or friends towards peers with disabilities can be regarded as an environmental factor that might facilitate or inhibit the inclusion of children with disabilities (Vignes, et al., 2009).

Attitudes of children without disabilities and their preparation to accept, coexist and cooperate with peers with disabilities in the same physical education classes in regular schools is one of the most important factor for successful inclusion (Obrusnikova, Block, & Dillon, 2010; Tripp, Rizzo, & Webbert, 2007; Siperstein, Parker, Norins, & Widaman, 2007). During the last decade studies indicated that some children have held positive attitudes towards inclusion of peers with disabilities in physical education classes (Arampatzi, Mouratidou, Evaggelinou, Koidou, & Barkoukis, 2011; Beck, Fritz, Keller, & Dennis, 2000; Nikolaraizi & De Reybекiel, 2001), while other studies reported negative attitudes (Kalyva & Agaliотis, 2009). Nikolaraizi et al., (2005), suggested negative attitudes of children without disabilities are a result of feelings of fear and lack of information. Vignes et al., (2009) went further stating negative attitudes may be just as obstructive as physical barriers in limiting children with
disabilities from participating fully in schools and communities. Negative attitudes may result in low acceptance by peers, few friendships, loneliness and even being rejected and/or bullied. This can have dramatic effects on the lives of children with disabilities, resulting in difficulties in joining group activities, declining academic performance, dropping-out of school and/or problem behavior (Jackson & Bracken, 1998; Aluede, Adeleke, Omoike, & Afen-Akpada, 2008; Lund, et al., 2009).

Attitude theorists have suggested that people have an interest to become aware about issues related to disability in order to form attitudes. With respect to including children with disabilities in regular education and especially in regular physical education classes, such knowledge may be focused on understanding the needs of children with disabilities and to reduce misunderstandings and feelings of pity. An essential question is whether providing knowledge about disability to children without disabilities will lead to more positive attitudes (Aluede, et al., 2008). Disability Awareness Programs (DAP) are key factors to create awareness and understanding about individuals with disabilities (Holtz, 2007; Ison, et al., 2010). It was found that a well structured multifarious DAP can influence children’s attitudes positively (Kalyvas & Reid, 2003; Kippers & Bouramas, 2003; Loovis & Loovis, 1997; Papaioannou, Evaggelinou, Barkoukis, & Block, 2013).

The Education Committee of the International Paralympic Committee recognized the value of the DAP and developed an educational program called Paralympic School Day (PSD) (IPC, 2006). Information and project activities in this program offer opportunities for children to learn about the Paralympic Games and become aware of the unique abilities of the athletes with disabilities. Research on PSD programs indicated a positive effect on general attitudes toward the inclusion of peers with disabilities in physical education class (Jesina, et al., 2006, Liu, Kudlacek, & Jesina, 2010, Lukas, et al., 2006, Panagiotou, et al., 2008, Van Biesen, Busciglio, & Vanlandewijck, 2006, Xafopoulos, Kudlacek, & Evaggelinou, 2009). However, attitudes toward adaptation of sports rules tended to decrease (Jesina, et al., 2006, Liu, et al., 2010, Panagiotou, et al., 2008, Wilhite, Mushett, Goldenberd, & Trader, 1997, Xafopoulos, et al., 2009). It appears many children without disabilities did not want to adapt sport rules and have a peer with disability as a teammate.

Hesitations to adapting sports and having a peer as a teammate may be the result of concerns that the inclusion of a child with a disability may slowdown and change the game making it less fun for everyone. Perhaps a less competitive, recreational environment involving physical activities might offer a more appropriate setting to influence attitudes towards children with disabilities. Recreation is defined as an activity developed by society that is designed for the primary reasons of fun enjoyment and satisfaction. The notion of recreation relates directly to the activity and it’s independent of the participant’s feelings and experiences. People who participate in recreation activities may experience enjoyment and satisfaction or may encounter failure, rejection and feeling of helplessness. This is particularly important for children with disabilities, especially children with intellectual disabilities and autism, who often face barriers when attempting to participate in community recreation and sports programs (Block, Taliaferro & Moran, 2013). An interesting dialogue has occurred during the last fifteen years regarding alternative settings where inclusion might succeed, such as interscholastic secondary school athletic programs (Kozub & Porretta, 1996), aquatic programs (Conatser, Block, & Lepore, 2000), outdoor recreation programs (Herbert, 2000), and organized summer camps programs (Fenning, et al., 2000).

Summer camps are recreational setting, in which children have the opportunity to participate in activities and games with peers on a daily basis, which foster inclusion and develop close relationships. Summer sport and leisure activity camps are usually designed to provide leisure and sport specific activities. These camps provide a wide range of sport (i.e., basketball) and leisure (i.e., art) opportunities for children and teens who love to try new and different activities or want to combine two or more interests. In these settings children get the chance to sample and enjoy a range of exciting sports and recreational pursuits in a high-energy environment or begin to develop sports skills and have the chance to learn or develop their game as an athlete (Thurber, Scanlin, Scheuler, & Hederson, 2007). However, there is no past evidence investigating the effect of DAP in summer camps. Thus, the purpose of the present study was to examine the impact of a three-week DCP on attitudes of children without disabilities toward the inclusion of a hypothetical peer with physical disability in a summer sport and leisure activity camp. Based on prior research in physical education, we hypothesized that the DCP would result in more positive attitudes towards disability.

Methods
Participants
Three hundred eighty seven campers without disabilities (M = 11.25 years old, SD = .97), from a summer sport and leisure activity camp in Northern Greece specialized in basketball participated in the study. The campers were divided into two groups, an experimental group (n = 197, M = 11.08 years old, SD = .98) that attended a DCP, and a control group (n = 190, M = 11.43 years old, SD = .93) attending the regular program of the camp which consisted of sports and leisure activities.

Instrument
Participants completed a modified version of the Attitudes Towards Integrated Sports Inventory (ATISI) (Block & Malloy, 1998). ATISI is a modified version of the Children’s Attitudes Towards Integrated Physical Education-Revised (CAIPE-R) (Block, 1995), a validated survey instrument designed to measure children’s attitudes toward inclusion of peers with disabilities in regular physical education. The version of the ATISI used for this study was modified from Block and Malloy (1998) in that statements contained within the inventory dealt with adaptations and attitudes toward inclusive participation on a basketball team. The questionnaire measures two dimensions of attitudes; a general dimension assessing attitudes toward inclusion in the team (8 items, example item - It would be ok having a camper like John on my team), and a sport-specific dimension measuring attitudes of participants with respect to specific rule and game modifications to basketball (5 items, example item - It would be ok to allow John to shoot at a lower basket?). Responses were given on a 4-point Likert scale from 1 (no) to 4 (yes). Higher scores indicate more positive attitudes toward inclusion (Table 1).

Table 1: Total Scores for General and Sport-Specific Attitudes
<table>
<thead>
<tr>
<th>General Attitudes (8 items)</th>
<th>Sport-Specific Attitudes (5 items)</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 (yes)</td>
<td>20 (yes)</td>
</tr>
<tr>
<td>18 (probably yes)</td>
<td>15 (probably yes)</td>
</tr>
<tr>
<td>12 (probably no)</td>
<td>10 (probably no)</td>
</tr>
<tr>
<td>6 (no)</td>
<td>5 (no)</td>
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Disability Camp Program
The DCP designed for this study was based on the principles of the Paralympic movement and more specifically on the educational program called PSD. Consistent with PSD program, the aim of the PCP was to increase awareness and provide information about children with physical disabilities in the camp’s enjoyable and playful environment. The DCP involved a range of practical and theoretical activities in which children enrolled by themselves such as disability simulation sport activities, information about Paralympic Games using lectures and video presentations and drawing activities with topics related to the Paralympic sports, athletes and equipment (http://www.paralympic.org/the-ipc/paralympic-school-day).

The DAP in the current study included ten activities (theoretical-practical): (1) Human Rights; (2) Information about Paralympic Games; (3) Boccia; (4) Classification; (5) Wheelchair Rugby; (6) Athletics; (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 subgroup of children participated every day for 20 consecutive days 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. Participants had the opportunity through the DCP to become aware of the personal uniqueness of individuals with a disability and to become familiar with a physical disability through the Paralympic Games (i.e., rules, adaptations and regulations of the events, famous athletes, equipment and actual participation). In addition, other activities, such as conversation regarding reading, discussion and watching a film that included a person with a physical disability, were organized during the midday.

Procedure
Upon the arrival of the campers, a written permission was granted from the parents and the camp directors. During the first day of the camp all children answered the questionnaire in which there was a hypothetical scenario in which a peer with a physical disability would be participating in their basketball league. Exact wording for the scenario follows: John is a child who really enjoys playing basketball. However, due to the nature of his disability, he is unable to use his legs to walk and must, therefore, move around by using a wheelchair. He has the full use of his upper body. He is able to dribble, pass, and shoot the basketball, and also fully understands the rules of the sport. He has played in a wheelchair.
basketball league in the past; however, he is interested in playing in the sport camp league because he wants to have fun and meet other children without disabilities.

After being presented with this situation, participants were asked to comment on a series of statements designed to assess their attitudes toward participation of an individual with a physical disability in their basketball summer league. In the next 20 days the activities of the DAP were implemented to the experimental group. Children in the control group attended the regular program of the camp. During the last day the post-intervention measurement was held. In both measurements the questionnaires were administered during midday recess at children’s cabins by the research personnel. The whole procedure was supervised by researchers, and both oral and written instructions were provided to children. All participants were reassured about the confidentiality of their responses and their right to withdraw.

Data Analysis
A 2 X 2 repeated measure analysis of variance was used to examine the effects of the disability awareness program on children’s general and sports-specific attitudes (group X pre-post measure). In particular the first independent variable was “group” with two levels (experimental and control group). The second independent group was a within factor variable “measure” with two levels (pre and post measurement). Two such ANOVA’s were contacted, one using the general attitudes as the depended variable and the other using sports-specific attitudes. The statistical package that was used was SPSS 19.0 (for Windows). The significant level was set at .05.

Results
Participants reported positive general and sports-specific attitudes towards the inclusion of peer with physical disability in summer sport and leisure activity camp. The correlations between the attitudes’ dimensions were moderate to high in both measurements (r > .79). Analysis of variance revealed two significant main effects regarding pre-post measure (F(1, 385) = 63.62, p < .001, partial η² = .142) and group (F(1, 385) = 99.08, p < .001, partial η² = .205). Moreover an interaction between the two independent factors was also noticed (F(1, 385) = 65.74, p < .001, partial η² = .146). Whereas responses of the control group did not change between the pre and post measure (M_pre = 14.41 ± 3.09, M_post = 14.30 ± 2.79), the experimental group was significantly improved after the awareness program (M_pre = 15.30 ± 2.82, M_post = 17.88 ± 1.79) (Figure 1).

The same pattern of results was noticed for the sport-specific attitudes. In particular, the two main effects were statistical significant, pre-post measure F(1, 385) = 84.26, p < .001, partial η² = .180 and group F(1, 385) = 56.73, p < .001, partial η² = .128, as well as their interaction, F(1, 385) = 65.53, p < .001, partial η² = .145. Figure 2 depicts the observed interaction. Whereas responses of the control group did not change between the pre and post measure (M_pre = 15.46 ± 3.41, M_post = 15.64 ± 3.16), the experimental group was significantly improved after the implementation of the awareness program (M_pre = 15.80 ± 2.60, M_post = 18.73 ± 1.73) (Figure 2).

![General Attitude](image-url)
Discussion
The hypothesis of the present study was that the DCP would have a positive effect on the attitudes of children without disabilities. Results of the analysis supported our hypothesis on the positive effect of the DCP on general and sports-specific attitudes towards the inclusion of peers with physical disability in a summer sport and leisure activity camp.

Participants of the experimental group who attended the DCP surveyed in this study had relatively positive general attitudes toward the inclusion of a camper with physical disability in the summer sport and leisure activity camp. The mean score of 17.88 for the eight statements measuring this global general attitude indicated children participating in the DCP were generally receptive to having a camper with physical disability participate in their team. With respect to the general attitudes, findings of the present study are in accordance with past evidence suggesting that DAPs like PSD including information, assimilation games, and interactive group discussions about disability can shape the attitudes of children without disabilities (Liu, et al., 2010; Panagiotou, et al., 2008; Papaioannou, et al., 2013; Rillotta & Nettelbeck, 2007; Van Biesen, et al., 2006; Xafopoulos, et al., 2009). Also, results of this study are similar to results of other findings who implemented other DAPs in outdoor recreation activities (e.g., Block & Malloy, 1998, Townsend & Hassal, 2007). It appears that this type of activity can have a positive effect on children’s attitudes. For example, Magouritsa’s et al., (2005) and Hutzler’s and Levi, (2007) revealed children were more favorable to accept peers with disabilities in their recreation outdoor activities after the implementation of intervention programs. Hutzler et al., (2007) suggested participation in active simulation disability activities increases children’s attitudes toward inclusion of peers with disabilities positively.

Inclusion in an outdoor recreation setting such as summer sport and leisure activity camp where children get the chance to participate in activities and games with peers on a daily basis and develop close relationships should be effective in developing positive attitudes. A summer camp setting may allow children to take healthy risks in a safe and nurturing environment. Summer camps are a typical life experience for children and young people and in this setting children can learn new skills, build friendships, and experience personal growth. Unlike the school setting which emphasizes academics, the camp setting provides a unique experience emphasizing less-competitive sports, social interaction, and having fun.

As far as the sport-specific attitudes, as mentioned in the second part of the questionnaire, results showed the mean response score for these statements for the experimental group was 18.73. This score indicated attitudes of respondents toward sport-specific modifications (i.e., scoring system, height of basket, rule adaptations, equating competition by having another individual compete in a wheelchair) were positive, and nearly as favorable as the general attitudes toward inclusion statements. In addition, results of other studies indicated negative attitudes on sports-specific attitudes (Van Biesen, et al., 2006) or a decrease of attitudes after the inclusion of students with disability in general physical education classes (Korologou, et al., in press, Wilhite, et al., 1997). These other studies found some children, particularly older children, felt the adapted game was not very challenging because it was too easy, not competitive and differed from what they were used to (Kalyvas, et al., 2003). In addition, previous research seems to show are accepting of peers with disabilities physical education classes but not necessarily as teammates in a competitive sport setting (Wilhite, et al., 1997). One logical conclusion is that this is a natural behavior of children who want to share the game with powerful teammates in order to become winners. These other studies suggest inclusion in physical education in regular schools where the focus
is more learning and educational lead to more favorable attitudes compared to sports settings where the focus is more on competition and winning.

This contrasted to results of the present study which found that the DCP can promote a positive effect on sports-specific attitudes of campers based on the camp setting. Positive changes in sport-specific attitude in this study might be due to the fact that the DCP in this study was a multifarious program consisting of both theoretical and practical activities such as physical disability simulation, physical activities through non-competitive games, information through videos about individuals with disabilities who took place in a recreational setting. It is hypothesized that the present results are due to the fact that in summer sport and leisure activity camp most emphasis is on having fun on a daily basis for three weeks and be a part of a team rather than competition and winning (Papaioannou, et al., 2013). The way that the DCP was organized seemed to play a major role on influence of children’s sport-specific attitudes (Liu, et al., 2010). To further promote positive attitudes, the researcher team in the present study initiated an interactive discussion among the campers at the end of the day. Also videos, reading, familiarity with sports for children with physical disabilities, and experiences in participating in basketball using wheelchair may have affected improvement in attitudes during the study. Perhaps the most important activity that lead to positive attitudes was though simulated disability sport activities like wheelchair basketball, wheelchair rugby and boccia. These simulated activities helped participants understand that it is not easy to participate in sports using a wheelchair, and these experiences most likely lead to positive attitudes towards making modifications to rules. In fact, after trying these sports children without disabilities felt it was difficult to play such a game, and this most likely led to favorable attitude towards changing the rules of their basketball game.

It should be noted that some of the simulated activities presented were chosen from previous Paralympic sports programs used in other studies. However, some of these activities such as shooting a basketball from a wheelchair proved to be too difficult for children aged 11 years old. It is recommended that age of participants and choice of activities be considered when planning of a disability awareness program.

Finally, although part of the PCP was focused on sports, it appeared to foster more generally positive attitudes since attention was given not only to the quantity but also to the quality of time which children spend together (Kippers, et al., 2003). Summer sport and leisure activity camps generally include the development of the whole child; not just how they are as an athlete but also how they are as a person, a bunkmate, a teammate, and a friend. It seems that these camps do much more than just improve a camper's soccer, tennis, or basketball skills; they help each child become a more skillful athlete, a more gracious competitor, a more committed team player, and a more confident and accepted person.

Given the discrepancy in this area between research from the physical education setting and the summer sport and leisure activity camps context, further research in this area is warranted. However, results of this preliminary investigation indicated more extensive future research is warranted to examine a number of variables (e.g., impact of level of competitiveness, different types of disability, intramural versus interscholastic activities, contact with children with disabilities and longitudinal follow-up study) associated with children in terms of their attitudes concerning inclusive outdoor recreation programs.

In conclusion, a DCP in outdoor recreation setting does not just happen; it needs to be planned. DCP have become a major force in promoting inclusion in recreational settings, particularly in a summer sport and leisure activity camp. The model used in the present study that combined elements of PSD not only provided the necessary support, but it also orientated the staff and helped to spread awareness about the inclusion. In addition, the content and the duration of a DCP appear to play a key role in creating an inclusive environment. There is a growing shift from segregated summer camp programs to a more integrated (Block, Horton, & Davis, 1997). Results of this study have shown that the PCP was able to provide quality programming to meet each child’s individual needs but also providing young participants with or without disabilities an additional incentive to work together. Following the specific philosophy of community-based programs such as PCP can facilitate and promote positive attitudes. Although behaviors that reflects negative attitude can limit opportunities for individuals with disabilities. These negative attitudes and subsequent behaviors can be changed. The recreation professional can implement programs which are designed in moving participant’s attitudes about people with disabilities from those that are negative to attitudes that reflect acceptance and understanding of diversity. Programs such as the PCP, which structure interactions, encourage extensive personal contact, promote joint participation, facilitate equal status, foster cooperating interdependence, focus on similarities, and develop effective communication, may be considered in developing positive attitude toward individuals.
with disabilities. The model used in the present study that combined elements of PSD not only provided the necessary support, but it also orientated the staff and helped to spread awareness about the inclusion. The implementation of national as well as awareness educational program could contribute to develop positive attitudes toward inclusion of peers with disabilities in summer sport and leisure activity camps. This program are recommended to be implemented in recreational as well as educational settings because could be an effective pedagogical method in order to develop positive attitudes towards individuals with disabilities.

References


