

ORIGINAL ARTICLE

Effect of International Paralympics Summer Youth Camp on self-esteem

Aynur DEMİREL, Ayça UYAN, Nevin ERGUN

Purpose: The aim of this study was to determine the changes in self-esteem in children with disabilities participating the First International Paralympics Youth Summer Camp.

Methods: Thirty disabled children from the United States (USA), Kenya, and Turkey with visual impairments and physical disabilities (17M, 13F, 7 visual impairment, 23 physical disability, mean age: 14.77 ± 1.64 years) participated in this study. Eligibility criteria for admission were to be native English and Turkish speaker and willingness to participate. Turkish and English version of a valid and reliable the Rosenberg Self-esteem Scale were applied to the children on the first and the last days of the camp to assess the changes in self-esteem levels. The Wilcoxon test was used to compare the differences in self-esteem between pre-and post-camp conditions.

Results: Self-esteem level increased significantly in children from Turkey but decreased significantly in children from Kenya at the end of the camp ($p < 0.05$). There was no significant change in self-esteem level of children from USA ($p = 0.66$).

Conclusion: It is recommended that camps with different durations and more participants in further studies should be organized to determine the effects of camps on the self-esteem.

Keywords: Self-esteem, Camping, Disabled children.

Uluslararası Paralimpik Yaz Gençlik Kampı'nın özsaygı üzerine etkisi

Amaç: Bu çalışmanın amacı, Uluslararası Paralimpik Yaz Gençlik Kampı'na katılan engelli çocuklardaki özsaygı değişikliklerini belirlemektir.

Yöntem: Amerika Birleşik Devletleri (ABD), Kenya ve Türkiye'den 30 görme ve fiziksel engelli çocuk (17 Erkek, 13 Kız, 7 görme engelli, 23 fiziksel engelli, ortalama yaş: $14,77 \pm 1,64$ yıl) çalışmaya katıldı. Çalışmaya kabul edilme kriteri, anadilin Türkçe veya İngilizce olması ve çalışmaya katılmaya gönüllü olmaktır. Anadillerine göre Türkçe ve İngilizce geçerli ve güvenilir Rosenberg Özgüven Anketi tüm çocuklarda özgüven seviyesindeki değişiklikleri belirlemek için kampın ilk ve son günü uygulandı. Kamp öncesi ve sonrasındaki özgüven seviyelerindeki farklılığı belirlemek için Wilcoxon testi kullanıldı.

Bulgular: Kamp sonunda, özgüven seviyeleri Türkiyeli çocuklarda anlamlı olarak arttı fakat Kenyalı çocuklarda anlamlı olarak azaldı ($p < 0,05$). ABD'li çocukların özgüven seviyelerinde istatistiksel olarak anlamlı bir değişim gözlenmedi ($p = 0,66$).

Sonuç: İleriki çalışmalarda kampların özsaygı üzerine etkisini belirlemek için daha fazla bireyin yer aldığı değişik sürelerdeki kampların ayarlanması önerilmektedir.

Anahtar kelimeler: Özsaygı, Kamp, Engelli çocuklar.

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A Demirel, N Ergun: Hacettepe University, Faculty of Health Sciences, Department of Physical Therapy and Rehabilitation, Ankara, Türkiye.

A Uyan: Zirve University, Faculty of Health Sciences, Department of Physical Therapy and Rehabilitation, Gaziantep, Türkiye.

Corresponding author: Aynur Demirel: aynur.demirel@hacettepe.edu.tr

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Number of people with disabilities are increasing worldwide. The overall prevalence according to World Health Organization (WHO) is almost 15% of the World's population. At least one person out of ten has physical, mental or sensorial disability in most countries.¹ Regardless of the type of the disability, 2-4% of whom experience remarkable difficulties in daily living.²

Physical activity is an important of the daily life for both healthy individuals and people with different disabilities. Physical activity is identified as "bodily movement which requires energy expenditure and produced by skeletal muscles".³ Physiological and psychological side effects related to Physical inactivity further complicates disability and decreases independence in basic activities and personal freedom.⁴

Children with disabilities encounter a number of difficulties in daily life such as reduction in social interaction. Due to constant support by the parents, physical, social, emotional, and psychological aspects of their life were affected negatively,⁵ and might result in inadequate self-esteem.

Disability and impairments did not affect quality of life directly but having a disability may limit participation.⁶ All individuals have chance to improve their health potential with regular exercise. It has been known that physical exercise has positive effects on self-esteem in children.⁷

Social skills and self-efficacy are the main components of carrying on everyday life independently. All steps of daily living require social ability and self-efficacy. Social skills have many parameters such as self-confidence, courtesy, value, and empathy.⁸ Empirical studies found that residential camps have positive effects on development of children and youths in terms of independence, creativity, and leadership characteristics.⁹ Other researchers showed positive results related with dynamic and continuing interaction, making friendship, and learning skills related with small group living,¹⁰ and demonstrating acceptance, respect for others, teamwork, and initiative.¹¹

Social skills differ cross-culturally; however, all cultures were focused on the importance of forming close bounds with others

to improve self-esteem and self-efficacy while avoiding rejection or isolation from peers.

Recently camp environments have been getting available for all age and ethnic groups including individuals with different abilities for ensuring outdoor educational setting.⁹ According to the American Camp Association (ACA), camp experience increased the development of "self-esteem, character, courage, responsibility, resourcefulness, and cooperation of campers."¹² Studies showed positive effects of single camp programs and positive youth development in campers. The effects of a camp experience are sometimes shown immediately after the camp, and sometimes several weeks after camp ended. The effects also depend on the type of program and the duration of camp.⁹

Based on the gap in the literature, we hypothesized that a summer residential camp experience might be associated with the increased levels of social interaction and imported in the feelings of social self-efficacy among the youth population with special needs. Therefore, the purpose of this study was to determine changes in self-esteem level during the first International Paralympics Youth Summer Camp.

METHODS

Participants

Thirty children with visual impairments and physical disabilities (17 males, 13 females, 7 visual impairment, 23 physical disability, mean age: 14.77±1.64 years) were included in the study. A total of 67 campers, 52 with physical disabilities and 15 with visual impairments, were included the first International Paralympics Youth Summer Camp. Besides children, 50 physical educators or volunteers, a total of 117 people were participated from United States of America (USA), Germany, Greece, South Korea, Kenya, and Turkey. Thirty children whose native language was English and Turkish were enrolled into the study.

Procedure

The duration of the camp was seven days. Many different types of activities were arranged in the group-centered camping program. The major Paralympics sports were

archery and table tennis for campers with physical disabilities and goalball for campers with visual impairments. All campers practiced these sports with their national trainers. Additionally, bocce, darts, swimming, and many other activities were offered.

An example of the daily program is presented in Table 1.

Table 1. An example of the daily program.

| Daily Program | |
|---------------|--|
| 08:00-09:00 | Breakfast |
| 09:30-11:30 | Archery-IV (Sports Group 1)/Table tennis-IV (Sports Group 2); Chess-I (Visual impairments) |
| 12:00-13:00 | Lunch |
| 13:30-15:30 | Games (Bocce-Dart-Quoits) |
| 15:30-16:00 | Snack |
| 16:15-18:00 | Swimming |
| 19:00-20:00 | Dinner |
| 20:30-22:00 | Countries' cultural shows |
| 22:30-07:00 | Bed time... |

Every group shifted in each Paralympic sports on a daily base. During other activities, all campers were together. Breakfast, lunch, dinner, and snacks were planned by a dietician. One day was selected as a cultural day during the camp. Ancient Greek city of Ephesus and House of Virgin Mary were chosen since they are important historic places nearby both for the Christian and Turkish societies. During the trip, all of the transportation was provided by the Turkish National Paralympics Committee using special buses for the wheelchair users.

We applied our questionnaire at the beginning of the camp and at the end of the camp, this period was seven days. We applied the Turkish version of the Rosenberg Self-Esteem Scale (RSES) to thirteen campers from Turkey.¹³ The English version of the RSES were applied to the seven native English speakers from the USA and 10 campers from Kenya. Care-givers helped campers who had visual impairments or dyslexia to complete the questionnaires.

The RSES was developed by Rosenberg in 1965,¹⁴ and Turkish version of scale was done by Çuhadaroğlu in 1986.¹³ The RSES is a self-

report questionnaire, and consists of 10 items. Five of the items are phrased as positive, and five of them as negative statements. The possible total score of the scale ranges between "0" and "6". The "0" point is the highest score and "6" point is the lowest score of self-esteem level.¹³⁻¹⁵

Statistical analysis

Statistical analyses were performed using the SPSS software version 19.0 (SPSS Inc., Chicago, USA). The variables were analyzed using both visual (histograms, probability plots) and analytical methods (Kolmogorov-Smirnov / Shapiro-Wilk's test) to determine whether or not they are normally distributed. Descriptive analyses were presented as medians and interquartile range (IQR) for the non-normally distributed variables, and means and standard deviations were shown additionally. Since, the self-esteem scale's results were not normally distributed; nonparametric tests were conducted to compare these parameters. The Wilcoxon test was used to compare the change in self-esteem between pre- and post-camp conditions. A p-value of less than 0.05 was considered to show a statistically significant result.

RESULTS

Table 2 shows descriptive characteristics of the subjects. There was no statistically difference between age and gender among the campers from the USA, Kenya and Turkey. Table 3 shows the pre- and post-camp results of RSES. When all subjects analyzed together there were no significant changes in self-esteem level ($p=0.53$). The similar findings were obtained for the campers from the USA ($p=0.65$). The changes in campers from Turkey and Kenya was statistically significant when comparing pre-camp and post-camp results ($p<0.05$). At the end of the camp, self-esteem level increased significantly in children from Turkey but decreased significantly in children from Kenya ($p<0.05$).

DISCUSSION

According to findings of our study a summer residential camp experience increased social interaction and improved feelings of

Table 2. Descriptive statistics of the subjects.

| | Turkey | Kenyan | USA | Total |
|-------------------|----------|----------|----------|----------|
| | Mean±SD | Mean±SD | Mean±SD | Mean±SD |
| Age (years) | 15.0±1.7 | 13.4±1.5 | 16.2±1.2 | 14.8±1.6 |
| | n | n | n | N |
| Gender (Girl/Boy) | 4/9 | 5/5 | 4/3 | 13/17 |
| Camp experience | | | | |
| National | 4 | 1 | 7 | 12 |
| International | 2 | - | - | 2 |
| Both | 1 | - | - | 1 |
| None | 6 | 9 | - | 15 |

Table 3. Comparison of the pre- and post-camp of the Rosenberg Self-esteem Scale results.

| | Turkey (N=13) | Kenyan (N=10) | USA (N=7) | Total (N=30) |
|---------------------------------|---------------|---------------|-----------|--------------|
| The Rosenberg Self-esteem Scale | Mean±SD | Mean±SD | Mean±SD | Mean±SD |
| Before camp | 20.6±2.7 | 22.5±2.0 | 24.7±1.7 | 22.2±2.7 |
| After camp | 23.2±1.1 | 20.2±1.3 | 24.8±0.3 | 22.6±2.1 |
| | p | | | |
| | 0.007* | 0.043* | 0.655 | 0.531 |

* p<0.05 (between before and after camp).

social self-efficacy among the youth population from Turkey. However, we found decreased self-esteem in campers from Kenya and no change in self-esteem in the campers from USA. Findings related to residential camps and its effect on young people with disabilities vary considerably, and rely on both objective ratings and self-report instruments. The RSES is a reliable tool to determine self-esteem in individuals with disabilities.^{6,13} Although evidence-based studies showed the benefits of residential camps for youth and children with disabilities, there is still a gap in the literature. The main aim of our study was to gain insight for the effect of a residential camp on self-esteem in youths with special needs.

The level of self-esteem in children with physical disabilities determined with various scales including the RSES, the Coopersmith Behavior Rating Form, the Piers-Harris Children's Self-Concept Scale, the Perceived Competence Scale for Children, the Pictorial Scale for Perceived Competence and Social Acceptance for Young Children, and the Self-Perception Profile for Children.¹⁴ Although all of these scale are easy to apply, RSES is the most common and most preferred scale in the

literature for individuals with physical disabilities.

During the camp, self-esteem level increased in the children from Turkey showing that Turkish campers would experience greater social interaction and an enhanced sense of self-efficacy. A previous study indicated that 216 boys who experienced a 7-week camp had positive changes in social skills, independence, and had a desire on trying new things.^{9,15} Another study showed that 48 children and 48 adolescents who participated in a 3-week therapeutic summer camp had an increased self-esteem index after the completion of the camp and the effect had been shown to be continued during follow-up period.¹⁶ The feelings of social insignificance and uselessness are frequent in disabled individuals.¹⁷ Self-esteem levels of children from Kenya decreased and it might be the result of their comparison of their life standards.

We found a small but nonsignificant change in children from USA and in the whole group may be due to the fact that a seven day camp may have only small changes in self-esteem levels of participants which could not be captured by the RSES. A previous study

showed that a one-week camp can result small positive benefits, and when the duration of camp increased the possible benefits are also increased.¹⁸ Duration of camp and the number of participants might affect our results. Therefore, effects of increased number of participants and the duration of the camp on self-esteem should be investigated. Integration of participants and campers' behavior improved according to staff and care-givers' observations. Therefore, a qualitative study should be organized to understand the effects cross-cultural differences on the findings.

Due to the people with disabilities miss the chance of "at critical learning period in childhood" they could not take part in sport activities and to discover their own abilities and capabilities. It results in fear of failure, ignorance to take part in sport activities, and avoid to participate in the leisure activity to develop potential skills and to decrease fear of failure. It may reveal why many disabled individual avoid taking part in sport based activities which have a potential for helping increased interactions with healthy individuals and increase their self-confidence.^{17,19} Disabled individuals should be encouraged to participate sportive activities for both their medical and psychological wellbeing. In the current camp, most of the campers did not participate in previously any of the sportive branches. Parachery, goal ball, and para table tennis were introduced, and experienced for the first time by the campers in the current summer residential camp. Performing sportive or recreational activity requires regular participation for a specific period of time, and the duration of the current camp may not be adequate to ensure positive effects on self-esteem in all participants from various cultural backgrounds.

Limitations

There is a lot of study in the literature on the benefit of residential camps for youth and children with disabilities. The current study presented the effects of the first international youth camp for the disabled. Some limitations were noted. Although the people joined the camp has different disabilities, only one scale was applied to all participants. Further study should take into consideration different disabilities. There is multifactor affecting of global self-esteem such as ethnic identity,

perceived discrimination, and multicultural behaviors. In order to determine a clear picture about self-esteem, the effects of these factors on the positive and negative self-esteem should be taken into account for further research.¹⁵

Conclusion

This study investigated whether a summer Paralympics residential camp effect self-esteem of participants. Although the results did not support the hypothesis that all campers would experience greater social interaction and an enhanced sense of self-efficacy from pre-to post-camp, integration of participants and campers' behavior improved according to staff and care-givers' observations. Therefore, these types of summer organizations would be expected in every year in longer period for the integration of the children with disabilities from all over the world.²⁰ Thereby, all stakeholders may be aware that the children with and without disabilities could be able to respect ethnic identity and different cultures.

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REFERENCES

1. World Programme of Action Concerning Disabled Persons. Available from: <http://www.un.org/esa/socdev/enable/diswpa04.htm>.
2. World Report on Disability. http://apps.who.int/iris/bitstream/10665/70670/1/WHO_NMH_VIP_11.01_eng.pdf
3. Caspersen CJ, Powell KE, Christenson GM. Physical activity, exercise, and physical fitness: definitions and distinctions for health-related research. *Public Health Rep.* 1985;100:126-131.
4. Cooper RA, Quatrano LA, Axelson PW, et al. Research on physical activity and health among people with disabilities: a consensus statement. *J Rehabil Res Dev.* 1999;36:142-145.
5. Richardson SA, Hastorf AH, Dornbusch SM. Effects of physical disability on a child's description of himself. *Child Development.* 1964;35:893-907.
6. Bent N, Jones A, Molloy I, et al. Factors determining participation in young adults with a physical disability: a pilot study. *Clin Rehabil.* 2001;15:552-561.

7. Ekland E, Heian F, Hagen KB, et al. Exercise to improve self-esteem in children and young people. *Cochrane Database Syst Rev*. 2004;(1):CD003683.
8. Gilmour B, McDermott W. Avoiding the "pinball machine approach" to promoting social competence: Hitting the target by chance or by design. *The Camping Magazine*. 2008;81(3):56.
9. Thurber CA, Scanlin MM, Scheuler L, et al. Youth development outcomes of the camp experience: Evidence for multidimensional growth. *J Youth Adolescence*. 2007;36:241-254.
10. Colyn L, DeGraaf D, Certan D. Social capital and organized camping, it's about community. *The Camping Magazine*. 2008:30-36.
11. Dworken BS. Research reveals the assets of camp: parents and campers give their opinions. *The Camping Magazine*. 2001;74(5):40-43.
12. Available from: <http://www.acacamps.org>. Accessed February 18, 2016.
13. Kinney W, Coyle CP. Predicting life satisfaction among adults with physical disabilities. *Arch Phys Med Rehabil*. 1992;73:863-869.
14. Miyahara M, Piek J. Self-esteem of children and adolescents with physical disabilities: quantitative evidence from meta-analysis. *J Dev Phys Disabil*. 2006;18:219-234.
15. Dimock HS, Hendry CE. *Camping and character: A camp experiment in character education*: New York: Association Press; 1929.
16. Michalski JH, Mishna F, Worthington C, et al. A multi-method impact evaluation of a therapeutic summer camp program. *Child Adolesc Soc Work J*. 2003;20:53-76.
17. Brittain I. Perceptions of disability and their impact upon involvement in sport for people with disabilities at all levels. *J Sport Soc Issues*. 2004;28:429-52.
18. Henderson KA, Whitaker LS, Bialeschki MD, et al. Summer camp experiences parental perceptions of youth development outcomes. *J Fam Issues*. 2007;28:987-1007.
19. Kew F. *Sport: Social problems and issues*: Taylor & Francis; 2009.
20. Brookman L, Boettcher M, Klein E, et al. Facilitating social interactions in a community summer camp setting for children with autism. *J Posit Behav Interv*. 2003;5:249-252.