

# EFFECT OF THE PHYSICAL ACTIVITIES ON ORPHANS' ANXIETY AND SELF ESTEEM

Hakan Kolayış, İhsan Sarı, Fikret Soyer, Leyla Gürhan  
Sakarya University, School of Physical Education and Sports, Turkey

*Original scientific article*

## Abstract

The aim of this study was to investigate whether 8 weeks practiced physical activities affect Orphans' self-esteem and anxiety. 25 orphans whose age average was  $11,04 \pm 0,84$  years voluntarily participated to the research. Turkish forms of general anxiety scale and Piers-Harris children's self-concept scale was applied to the children before and after 8 weeks practiced physical activities. Data was tested in SPSS 13,0 program and level of significance were determined as 0,05. Descriptive statistics techniques, Mann-Whitney U, Wilcoxon and Spearman correlation test were used in the analysis of the data. The results revealed that there was a significant difference ( $P < 0,05$ ) between pre-test and post-test of anxiety and self-esteem points. Spearman's correlation test showed that there is significant correlation between pre-test anxiety and post-test anxiety ( $r = 0,974$ ;  $p < 0,05$ ), pre-test anxiety and pre-test self-esteem ( $r = -0,705$ ;  $p < 0,05$ ), pre-test anxiety and post test self-esteem ( $r = -0,674$ ;  $p < 0,05$ ), post-test anxiety and pre-test self-esteem ( $r = -0,717$ ;  $p < 0,05$ ), post-test anxiety and post-test self-esteem ( $r = -0,697$ ;  $p < 0,05$ ), pre-test self-esteem and post-test self-esteem ( $r = -0,969$ ;  $p < 0,05$ ). It can be concluded that physical activities is beneficial for children who live in orphanage. People living without their parents suffer from lack of love and care. Absence of satisfying such needs results in psychological depression and problems. Hence, participating in physical activities will help children living in an orphanage to be strong, happy healthy and successful in their future.

**Key words:** orphan, anxiety, self-esteem, physical activity

## INTRODUCTION

Anxiety is defined as a negatively-valenced psychological state which arises under threatening circumstances and it leads to affective, physiological, and cognitive changes (Northern, 2010). Anxiety sometimes might be a very serious problem, therefore some scientists define it as an unpleasant emotional state and it is often accompanied by fatigue, exhaustion and some physiological symptoms such as rapid heart rate, sweating, nausea, chills, trembling, hyperventilation, fear of doing something uncontrolled, and fear of death (Greist & Jefferson, 2000).

Self-esteem refers to how much value people place on themselves. High self-esteem means positive evaluation of the self and low self-esteem refers to an unfavorable opinion of the self (Baumeister et al. 2003). Self-esteem is indispensable for high quality of life (Branden, 1990) and is related to life satisfaction (Biddle, Fox & Boutcher, 2000).

Exercise is beneficial for various health problems and many negative states are eliminated by physical activity. Therefore effects of exercise on different psychological states have been widely researched (Sagrati, 2009; Schulz, 2008). Previous research also showed that physical activity increases self-esteem (Debate, 2009; Faulkner, 2007) and diminished anxiety (Oeland, Laessoe, Olesen & Munk-Jorgensen, 2010, Strong et al. 2005)

People's developing healthy life is an important issue to consider. Family is responsible and the prime factor for healthy development of children

(Cebe, 2005). Children living in orphanage experience difficulty in their life because their emotional needs are not met by their parents. Hence, they might have some psychological problems (Tümekaya & Songül, 2005). Especially, orphans need help to solve their life's problem. Since, exercise programs have been suggested to be psychologically and emotionally beneficial (Sonstroem, 1998), physical activities might be used for psychological wellbeing of children who live in such places without their families.

Rather than physical activity, there might be various individual factors that affect self-esteem and anxiety. For example; age, gender, socio-economic status, school type, occupation of father, education level of father are some of them (Çetinkaya et al. 2006).

The aim of this study was to investigate whether eight weeks practiced physical activities affect Orphans' self-esteem and anxiety.

## METHOD

### Participants

25 children (orphans) whose age average was  $11,04 \pm 0,84$  years voluntarily participated to the research.

### Instruments

*General anxiety scale:*

General anxiety scale that was developed by Sarosan and his friends is made of 45 items. The items are answered as "yes" or "no". Ören (1989) who reported the validity of this scale applied his validated trait anxiety scale to 50 students and

correlated the scores of the two scales. The correlation was found to be .57. The reliability coefficient of the anxiety scale was found to be r: 0.66 by Sarosan and his friends in a study which is conducted in 8 different groups with 40 participants. The correlation between the scores of general anxiety scales was found to be .59 in Ören's research with 30 participants where there was 3 months gap.

#### *Piers-Harris children's self-concept scale:*

Children's self-concept scale which Piers-Harris (1964) developed and Öner (1994) made the language adaptation for, evaluate opinion, emotion and attitude of children for themselves. Reliability coefficient of the subscales range from 0.78 to 0.93 Six factors explain the %42 of the change in total score. Reliability coefficients of Turkish scale range from .81 to .89.

#### *Data collection*

Pre-test and post-test research design was used for this research in which the aim was to examine the effect of 8 weeks sportive activities on self-esteem and anxiety of orphans. 8 weeks program (1. 2. 3. week Step aerobic 4.week Step aerobic (Choreography), 5. 6. 7. 8. week Table tennis) of the research. The data was collected by the researchers with the Orphanage's psychologist.

#### *Analyzing of the data*

The data obtained from the research was analyzed by SPSS 15 package. Descriptive statistics techniques and non-parametric tests which are Mann-Whitney U, Wilcoxon and Spearman correlation test were used in the analysis of the data. Level of significance was determined to be 0,05.

## **DISCUSSION AND RESULTS**

The aim of the study was to examine if physical activities affect self-esteem and anxiety of orphans living in an Orphanage. We also researched if the results vary across gender groups. It was initially assumed that practicing physical activities will result in higher self-esteem and lower anxiety.

Participants of the study were the orphans from Orphanage. They were a specific group of children and the needs of children staying in these special places are different than other children. Development of these children might be much more different than children living with their parents. Because, man need to experience love and interpersonal contact with their families for their optimum development. Anxiety levels might get higher and self-esteem levels might be lower due to lack of interaction family members. Consequently, any kind of support to decrease anxiety and increase self-esteem in such contexts is fundamental

Table 1.  
The difference between pre-test and post test anxiety point

<b>Variable</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>Z</b>	<b>P</b>
<b>Anxiety Pre-test</b>	25	25.12	9.0246		
<b>Anxiety Post-test</b>	25	23.8	8.18535	2.341	0.019*
<b>Self-esteem Pre-test</b>	25	40.28	10.37031		
<b>Self-esteem Post-test</b>	25	43.04	9.87623	-3.966	0*

\*P<0.05

There was a significant difference (P<0.05) between pre-test and post-test of anxiety and self-esteem levels of children. According to the other result of the study, as initially thought, it emerged that participating in physical activities resulted in lower anxiety. Previous research also revealed similar results (Oeland et al. 2010). In our study,

participants showed lower anxiety after practising physical activities for a period of time. This could be due to the fact that physical activities include various positive factors that lower anxiety. Some of these factors lowering anxiety might be; togetherness, trust, competence, physical wellbeing etc. that people gain in physical activities.

Table 2.  
The difference between genders

Variable	Gender	n	Mean	SD	P
<b>Anxiety Pre-test</b>	Female	12	19.21	6.25954	0*
	Male	13	7.27	4.71495	
<b>Anxiety Post-test</b>	Female	12	18.92	5.5732	0*
	Male	13	7.54	5.25137	
<b>Self-esteem Pre-test</b>	Female	12	7.92	5.34846	0.001*
	Male	13	17.69	9.80123	
<b>Self-esteem Post-test</b>	Female	12	8.13	5.75774	0.001*
	Male	13	17.5	9.30467	

### P<0.05

There was a significant difference ( $P<0.05$ ) between pre-test and post-test of anxiety and self-esteem levels of children according to gender. Self-esteem score of male participants were found to be higher than females. Previous study also supported this result and reported higher self-esteem in males (Serin ve Öztürk, 2007).

According to the results of the study it appeared that spending time in physical activities resulted in higher self-esteem. This means, children practicing physical activities feel better about their abilities related to sports, which is positively associated with self-esteem. (Slutzky & Simpkins, 2009).

### CONCLUSION

In the light of the results from this study, it can be concluded that physical activities is beneficial for children who live in orphanage. People living without their parents suffer from lack of love and care. Absence of satisfying such needs might results in psychological depression and problems. These children are often neglected and don't have families that motivate, care for and give attention to them. In order to live in a healthy and happy society, every individual should be given proper attention. Most especially, children like the participants of this study are the ones who need this attention most. Practicing physical activities results in higher self-esteem and lower anxiety in children of our study and we believe that participating in physical activities will help children living without their parents to be strong, happy healthy and successful in their future.

### References

1. Baumeister R.F., Campbell J.D., Krueger J.I., Vohs K.D. (2003). Does high self-esteem cause better performance, interpersonal success, happiness, or healthier lifestyles? *Psychological Science in the Public Interest*, 4, 1–44.
2. Biddle SJ., Fox KR., Boutcher SH. (2000). (eds) *Physical Activity and Psychological Well-Being*. Routledge: London. pp. 63–87.
3. Branden, N., (1990, August 9th). *What is self-esteem?* Paper presented at the International Conference on Self-esteem, Asker/Oslo, Norway. (Report No. CG 022 939). (ERIC Document Reproduction Service No. ED 325 783).
4. Cebe, F., (2005). Sosyal hizmetler ve çocuk esirgeme kurumu yetiştirme yurtlarında barınan çocukların "benlik saygısı", "depresyon", "kaygı" skorlarının ailesi yanında kalan çocuklarla karşılaştırılması. (master dissertation). Istanbul University.
5. Çetinkaya, S., Arslan, S., Nur, N., Özdemir, D., Demir, Ö.F., Sümer, H., (2006). Sivas il merkezinde sosyoekonomik düzeyi farklı üç ilköğretim okulu öğrencilerinin benlik saygısı düzeyi. *Klinik Psikiyatri*.9:116-122.
6. Debate, RD, Gabriel, KP., Zwald, M., Huberty, J., Zhang,Y., (200 9). Changes in Psychosocial Factors and Physical Activity Frequency Among Third to Eighth-Grade Girls Who Participated in a Developmentally Focused Youth Sport Program: A Preliminary Study. *Journal of School Health*.79 (10). 474-484.
7. Faulkner GEJ., Adlaf EM., Irving HM., Allison KR., Dwyer JJM., Goodman J., (2007). The relationship between vigorous physical activity and juvenile delinquency: a mediating role for self-esteem. *Journal of Behavioral Medicine*.30:155–163
8. Greist, J.H., & Jefferson, J.W. (2000). Anxiety disorders. In H.H. Goldman's (Ed.) *Review of General Psychiatry - 5th Ed.* New York, NY: McGraw-Hill.

9. Northern, J.J., (2010). Anxiety and cognitive performance: A test of predictions made by Cognitive Interference Theory and Attentional Control Theory. (Doctoral dissertation). Available from Dissertations and Theses database. AAT 3417906.
10. Oeland AE., Laessoe, U., Olesen, A.V., & Munk-Jorgensen, P. (2010). Impact of exercise on patients with depression and anxiety. *Nord J Psychiatry* 64: 210-217.
11. Öner, N., (1994). Piers-Harris'in Çocuklarda Öz Kavramı Ölçeği El Kitabı. Ankara: Türk Psikologlar Derneği.
12. Ören, N. (1989). "Grupla Psikolojik Dışmanın İlkokul Öğrencilerinin Sınav Ve Genel Kaygı Düzeyleri Üzerine Etkileri". Atatürk Üniversitesi Edebiyat Fakültesi Sosyoloji Bölümü Yayınları. No:7, Erzurum.
13. Piers, E. V., & Harris, D. A. (1964). Age and other correlates of self-concept in children. *Journal of Educational Psychology*. 55, 91-95.
14. Sagrati, S., (2009). The association between acute physical activity and vulnerability to depression using a mood priming paradigm. (Doctoral dissertation). University of Toronto, Publication number: NR52514.
15. Schulz, J., (2008). The relationship between regular physical exercise, in the form of walking, and mood, self-esteem, and anxiety experienced among adults living with mental illnesses. (Doctoral dissertation). Kean University, UMI Number: 1450781.
16. Serin, NB., Öztürk, S. (2007). Anne-babası boşanmış 9–13 yaşlarındaki çocuklar ile aynı yaş grubundaki anne-babası boşanmamış çocukların benlik saygısı ve kaygı düzeyleri. *Ahi Evran Üniversitesi Kırşehir Eğitim Fakültesi Dergisi* \_ 8(2), 117-12.
17. Sonstroem, R.J., (1998). Physical self-concept: Assessment and external validity. *Exercise and Sport Science Reviews*, 26, 133-164.
18. Slutzky, C. B., & Simpkins, S. D. (2009). The link between children's sport participation and self-esteem: Exploring the mediating role of sport concept. *Psychology of Sport and Exercise*, 10, 381-389.
19. Strong WB., Malina RM., Blimkie CJ., Daniels SR., Dishman RK., Gutin B., Hergenroeder AC., Must A., Nixon PA., Pivarnik JM., Rowland T., Trost S., Trudeau F. (2005). Evidence based physical activity for school-age youth. *J. Pediatr*. 146: 732–737.
20. Tümkaya, S.. (2005), "Ailesi Yada ve Yetistirme Yurdunda Kalan Ergenlerin Umutsuzluk Düzeylerinin Karşılaştırılması", *Türk Eğitim Bilimleri Dergisi*, C.3, S. 4, ss. 445-459.

## **EFEKTI TJELESNE AKTIVNOSTI DJECE BEZ RODITELJSKOG STARANJA NA ANKSIOZNOST I SAMOPOŠTOVANJE**

*Originalni naučni rad*

### **Sažetak**

Cilj istraživanja je bio da se istraži da li osmosedmično tjelesno vježbanje utiče na nivo anksioznosti i samopoštovanje kod djece bez roditeljskog staranja. U istraživanju je dobrovoljno učestvovalo 25 siročadi uzrasta 11,04±084 godina. Turska verzija opšte skale anksioznosti i Piers-Harrisova skala samopoimanja kod djece je primjenjena prije i poslije osmosedmičnog programa tjelesne aktivnosti. Podaci su obrađeni SSPS 13. Nivo značajnosti razlika je uzet na nivou 0.05. U analizi podataka je korištena deskriptivna statistika, Mann-Whitney U test, Wilcoxonov test i Spearman korelacija. Dobijeni rezultati pokazuju statistički značajne razlike ( $P<0.05$ ) između rezultata nivoa anksioznosti i samopoštovanja prije i poslije sprovođenja programa. Rezultati Spearmanove korelacije pokazuju da postoje statistički značajne korelacije između nivoa anksioznosti prije i poslije provedenog programa ( $r = 0,974$ ;  $p<0,05$ ), nivoa anksioznosti i nivoa samopoštovanja prije programa ( $r = -0,705$ ;  $p<0,05$ ), nivoa izmjerene anksioznosti prije programa i nivoa samopoštovanja nakon programa ( $r = -0,674$ ;  $p<0,05$ ), nivoa anksioznosti nakon programa i nivoa samopoštovanja prije programa ( $r = -0,717$ ;  $p< 0,05$ ), nivoa anksioznosti i nivoa samopoštovanja poslije programa ( $r = -0,697$ ;  $p<0,05$ ), nivo samopoštovanja prije i poslije programa ( $r = -0.969$ ;  $p<0.05$ ). Može se zaključiti da tjelesna aktivnost ima blagotvorne efekte na djecu koja žive u sirotištu. Djeca koja su bez roditeljskog staranja suočeni su sa manjkom ljubavi i pažnje. Odsustvo ovih potreba rezultira depresivnim stanjima i psihološkim problemima. Učestvovanje djece u organizovanoj tjelesnoj aktivnosti može pomoći djeci koja žive bez roditeljskog staranja da budu jača, sretnija, zdravija i uspješnija u budućnosti.

**Ključne riječi:** djece bez roditeljskog staranja, anksioznost, samopoštovanje, tjelesna aktivnost

### Correspondence to:

Hakan Kolayış  
Beden Eğitimi ve Spor Yüksekokulu,  
Esentepe Kampüsü 54187 Sakarya,  
Turkey  
Fax: 90 264 2956642,  
Telephone: 90 264 2956652  
hkolayis@sakarya.edu.tr