

International Congress on Sport Sciences &Interdisciplinary research / semi-virtual

11\_12 Nov. 2021



# The Effect of a Period of Aerobic Activity on the Dynamic and Static Balance of **Visually Impaired Children**

### **Poster Presentation**

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## Abstract

Abstract: One of the limitations that can affect motor skills development is visual impairment (low vision or blindness); this disorder affects all aspects of the child's development and leads to poor performance in these children. Poor motor skills may reduce a child's motor competence and lead to withdrawal from motor activities, which in turn may lead to limited opportunities to practice motor skills. Children with visual impairments are at risk for poor mobility and motor homework.

Methods: The aim of the present study was to investigate the effect of aerobic exercise on improving static and dynamic balance in visually impaired children. The statistical population in this study includes all visually impaired children aged 8 to 10 years in Ahvaz. Due to the size of the population, the available sampling method was used to select the sample. After studying the pediatric medical records, 30 people were selected based on the Snellen optometrist scale, and after performing the pre-test related to dynamic balance (star test) and static (stork test) were randomly divided into two groups of aerobic exercise and control. The aerobic exercise group performed its training program for 16 sessions of 45 minutes, and the control group was not active during this period; then, a post-test was performed.

Results and Conclusion: The results were recorded. The results of the t-test showed that the subjects of the aerobic group had better performance in the components of dynamic balance (t = 22.4) and static balance (t =42.9). Therefore, it is recommended that aerobic exercise be used in physical education programs in special schools to improve children's motor performance.

# **Keywords**

static balance; dynamic balance; aerobic activity; low vision

# **Reference:**

1. Bressel, E. Tonker, J.C. Kras, J. Heath, E.M. (2007). "Comparision of static and dynamic balance in female collegiate soccer, basketball and gymnastics athletes". J Athl train, 42(1). PP:42-46.

2. Gallahue, D. Azmoon, L. (2012). Understanding motor development: infants, children, adolescents, adults. 3. Hartman, E., Visscher, C. Houwen, S. & Lemmink, K. A. P. M. (2007). Gross motor skills and sports participation of children with visual impairments. Research Quarterly for Exercise and Sport, 78, 16-23.

4. Hodges PW, Richardson CA. (1997). Contraction of the abdominal muscles associated with movement of the lower limb. Phys Ther. 1997;77(2):132-144