

INFLUENCE OF SOCIODEMOGRAPHIC FACTORS AND LEVELS OF PHYSICAL ACTIVITY ON THE PRESENCE OF SPINAL DEFORMITIES IN CHILDREN DURING GROWTH AND DEVELOPMENT

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Background: The current living conditions, which impose an increased sedentary lifestyle and unhealthy habits among children, are associated with an increase in the occurrence of spinal column deformities during the developmental period. Numerous risk factors are known to be associated with development and progression of spinal deformities.

Methods and Objectives: The aim of this observational, clinical study is to present the distribution of sociodemographic factors and levels of physical activity, along with their mutual conditioning, for the occurrence of spinal deformities in pediatric population during the developmental period.

The study participants were children who were examined by a physiatrist and a pediatric surgeon. The first group included 100 children with spinal deformities. The control group consisted of 100 children without spinal deformities.

Results: Respondents in the group with spinal deformities were statistically significantly older (11.5 ± 3.1 years vs. 10.4 ± 3.1 years, $p=0.016$), overweight (43.9 ± 16.0 vs. 39.3 ± 16.6 kg, $p=0.046$), taller (151.7 ± 17.2 vs. 145.8 ± 18.2 cm, $p=0.019$) and less frequently engaged in free physical activities (81.0% vs. 92.0% , $p=0.001$). Positive family history of spinal deformities was shown to be in 29% of respondents with spinal deformity and 14% of respondents without this deformity, which represents a statistically significant difference between these two groups ($p=0.010$).

Respondents from the group with spinal deformities are engaged in some physical activity in 81% of cases, while respondents from the group without spinal column deformities were more physically active in 92% of cases, which was shown to be a statistically significant difference between the compared groups ($p=0.001$).

Conclusion : Our results demonstrated that certain groups of children including those that are overweight, taller and the ones that were less frequently physically active should be regularly followed for the evaluation of onset and progression of spinal deformities during the period of growth and development.

Keywords: spinal deformities, sociodemographic factors, physical activity, children