Human Growth
in Sickness and in Health

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Abstracts

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EDIZIONI CENTRO STUDI AUXOLOGICI
Conclusions: The exercise efficiency of patients after cardio-surgical correction of congenital heart defects, such as ASD II, ASD I and VSD is comparable to that of children in the control group. Children subjected to correction of ToF showed significantly lower exercise efficiency than those in the control group, but higher than those with a one-chamber heart after Fontan operation.

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Gross Motor Coordination and Readiness. A Discriminant Analysis in Children from the Azores Islands (Portugal)
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Background: Within the framework of a regional study on growth, motor performance and physical activity, a cross-sectional research was conducted in the Azores islands (Portugal).

Aim: One of the major purposes of this work was to link motor coordination and readiness of school-children with physical education planning in school settings.

Methods: 1908 boys and 1826 girls aged 6 to 10 years old were surveyed in 8 of the 9 Azores Islands. The information covered many domains, but we report here only motor coordination that was assessed with the KTK test battery comprising 4 tests: balancing backward, hopping on one leg, jumping sideways, and shifting platforms. Separate discriminant analysis (by gender) was performed in SYSTAT 10, using age (6 to 10 years) as a group variable.

Results: Intraclass correlation coefficient was used to estimate the reliability of all tests. This was done in 4 independent sub-samples. Values were good, ranging from 0.776 to 0.898. Although mean values in each of the 4 tests showed a significant (p<0.001) increase across ages in each gender, a strong heterogeneity of results (high standard deviations) was found among different ages in each test. In girls a significant discriminant function (DF) emerged (Wilks L=0.635; F=55.703, p<0.001). Classification matrix showed a very low % of correct classified cases: age 6=63%, age 7=28%, age 8=27%, age 9=24%, age 10=54%, which gives a total of 35%. The same pattern occurred in boys, where the DF was also significant (Wilks L=0.630; F=59.239, p<0.001). Classification matrix showed a very low % of correctly classified cases: age 6=67%, age 7=29%, age 8=24%, age 9=21%, age 10=66%, which gives a total of 37%.

Conclusions: These results call for attentive redesign of physical education planning in schools, since there is a strong gap between levels of motor coordination and chronological age. Moreover, the low readiness found in all age groups needs further exploration in connection with habitual informal and formal physical activity, weight problems and physical fitness status.