

### Pokroky ve výzkumu, diagnostice a terapii

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## P27 – Influence of a complex of socio-economic factors on physical development of teenagers of Belarus

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The influence of a complex of socio-economic factors (education and status of parents, living conditions and financial situation of the family, completeness of the family and number of children in the family) was studied to the physical development of adolescents in the capital of Belarus (multiple regression analysis was applied). In the analysis were included 28 signs characterizing the body's growth in length, width, development of the muscle and fat component of the body composition.

At the first stage the share of variability of anthropometrical indicators from combination of factors is defined. On separate anthropometrical signs it made 14,7–25,4% at boys, girls have 10,8–22,2%. The physical development of boys to a greater extent than of girls depends on socio-economic factors.

At the following stage environment factors the most significant for physical development of teenagers are defined. The greatest connection of physical development with the level of education of the mother and the material situation of the family was revealed. The higher the educational level of the mother and the financial situation of the family, the higher the indices of the physical development of adolescents.

Indicators of physical development of boys and girls discover different sensitivity to certain factors of the environment. The level of education of the mother more significant factor for boys, for them more signs which are reliably depending on the level of education of the mother, than for girls are defined. Financial situation of the family more significant factor for girls. Sons of mothers with the higher education are higher, have a developed chest, higher weight of a body, than contemporaries who have mothers with secondary education. And, the weight at them is higher at the expense of bigger development of skeletal muscles, at the lowest development of hypodermic fat. In families with low financial situation daughters are undersized, have a disharmonious ratio of length and weight of the body due to deficiency of weight, a poor development of muscular and fat components of structure of the body. Girls in such families have narrower pelvis and a small chest. Girls from families with high financial situation have the most developed chest, muscular weight, the greatest width of the pelvis.

# All mankind is of one origin

