

**Reviewing Selected Anthropometric
Characteristics of the Somatic
Development in Children**

Silvia Duranková

Ram-Verlag

2021

REVIEWING SELECTED ANTHROPOMETRIC CHARACTERISTICS OF THE SOMATIC DEVELOPMENT IN CHILDREN

© Author: PaedDr. Silvia Duranková, PhD.

Reviewers:

Prof. Dr. Monika Piątkowska, PhD.
Assoc. Prof. Iveta Boržíková, PhD.

© Translation: Mgr. Gabriela Kleinová

Publisher: RAM-Verlag, Lüdenscheid, Germany
1st Edition

© Copyright 2021 by RAM-Verlag, D-585115 Lüdenscheid

Publisher:

RAM-Verlag

Stüttinghauser Ringstr. 44

D-58515 Lüdenscheid

Germany

RAM-Verlag@t-online.de

<http://ram-verlag.eu>

The publisher cannot be held responsible for any linguistic errors in book:
Such responsibility is only up to the authors

ISBN 978-3-96595-005-4

The monograph is funded by the VEGA Project of The Ministry of Education, Science, Research and Sport of the Slovak Republic (MŠVVaŠ SR) and The Slovak Academy of Science (SAV) (No. 1/0122/19) and its title is: Somatic and Motor Skill Characteristics and Development Trends in Younger School Age Children with a Special Focus on Children from Marginalized Roma Communities.

Special thanks go to all those who participated in any way in the creation of this monograph and, last but not least, the directors of the selected schools for their cooperation.

CONTENTS

INTRODUCTION	1
1 ROMA PEOPLE IN EUROPE AND SLOVAKIA.....	3
1.1 The Origin and Migration of Roma People.....	3
1.2 Historical References to Roma People in our Territory	5
2 YOUNGER SCHOOL AGE	10
2.1 Periodization.....	10
2.2 Younger School Age (Anatomy).....	10
2.2.1 <i>Musculoskeletal System</i>	12
2.2.2 <i>Respiratory System</i>	14
2.2.3 <i>Cardiovascular System</i>	15
2.2.4 <i>Nervous System</i>	16
2.2.5 <i>Digestive System</i>	17
2.2.6 <i>Excretory System</i>	17
2.2.7 <i>Endocrine System</i>	17
2.2.8 <i>Sensory System</i>	18
2.2.9 <i>Immune System</i>	18
2.3 Motor and cognitive development.....	19
2.3.1 <i>Motor development</i>	19
2.3.2 <i>Cognitive development</i>	21
2.3.3 <i>Emotional development</i>	25
2.3.4 <i>Social development</i>	28
3 SOMATIC DISTINCTIVE TRAITS OF SCHOOL AGE CHILDREN	30
4 GROWTH AND DEVELOPMENT.....	37
4.1 Influencing Growth	37
4.2 Growth Age	38
4.3 Methodology of Growth Assessment.....	39
5 ANTHROPOMETRY OF THE MAJORITY POPULATION AND MINORITY POPULATION AT PRESCHOOL AND YOUNGER SCHOOL AGES.....	45
5.1 Preschool age.....	45
5.1.1 <i>Anthropometric analysis of the physical development of preschool children from Slovakia</i>	45
5.1.2 <i>The somatic development of Roma and non-Roma preschool aged children...</i>	51
5.2 Younger school age	58
5.2.1 <i>Anthropometric characteristic of preschool age children and younger school age children from the district of Stropkov</i>	58
5.2.2 <i>Anthropometry of Roma school age children from eastern Slovakia</i>	66
5.2.3 <i>Antropometry of school age children from Slovakia</i>	80
CONCLUSION	88
REFERENCES	90
AUTOR INDEX.....	108
INDEX	112

INTRODUCTION

The research objective of the presented scientific monograph responds in certain ways to scientific and research demand for anthropometric measurement of selected anthropometric parameters of different age groups. The presented monograph also contains a set of offprints of original scientific papers and it deals with issues of anthropogenetic and auxologic study of children at younger school age. Growth and development are typical features of the human body indicating changes in body proportions and vital functions and improvement of body organ systems. The processes of growth and development are individual and run at different pace. They are greatly affected by multiple factors and depend specifically on genetic predispositions, external, social and economic environment, nutrition and physical activity. These factors have an impact not only on mental but also on physical development of the child. Thus, regular studies focusing on growth monitoring in children and youth are important for assessment of overall health condition of the child. Many authors provide different body dimension values depending on age and they differentiate between preschool age (3-6 years of age) and younger school age (6-10 years of age). During these periods, body dimensions change significantly and even the sexual dimorphism can be demonstrated, i.e., boys are taller and their weight is higher. Significant deviations from the average are thus an appropriate indicator of the overall health and nutrition of the population.

Social and economic differences between citizens in Slovakia have been confirmed as the partial consequence of migration and arrival of other ethnic groups to our territory. The Slovak Republic is a multi-ethnic country with a high number of ethnic and national minorities (up to 20% of the total population is made up by minorities). Roma people represent the largest minority with 8-9% of the population, and they often live in poverty and insanitary conditions. Currently, the question of Roma people origin has not been answered satisfactorily. Although linguistic studies showed that Roma people came from India, historical linguistics is unable to specify the exact ethnic origin of the first migrants speaking Roma language. The part of India where Roma people came from, castes they belonged to, their social status in India, and why they left India, are not known exactly.

The presented monograph was compiled with the support of the VEGA grant project of the MŠVVaŠ SR and SAV (No. 1/0122/19) entitled: Somatic and Motor Skill Characteristics of and Development Trends in Younger School Age Children with a Special Focus on Children from Marginalized Roma Communities. The research objective of this monograph focuses on the research of selected anthropometric parameters in children. We believe that the method of

Introduction

addressing theoretical and practical starting points within this monograph may add missing anthropometric data and raise multiple issues for academic and scientific discussion.

Here, we would like to thank reviewers whose expert suggestions and comments helped to improve the quality of this publication. Many thanks go to all cooperating educators of participating primary schools for their helpfulness, willingness and cooperation in carrying out field measurements. And last but not the least, my thanks go to the key players of the research objective – children – for their active participation in and enjoying measurements.