

RESEARCH ON SOME ANTHROPOMETRICAL MEASURES AND INDEXES OF FIRST-GRADE PUPILS OF KINH, KHMER, AND CHAMPA ETHNICS IN THE MEKONG DELTA

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ABSTRACT

Background: the anthropometrical measures and indexes are essential elements in research on human development. Measuring the measurement of the human physique to identify the developmental rules has been studied for a long time and in many places worldwide. **Objectives:** to confirm the anthropometrical measurement and indexes of first-grade pupils of Kinh, Khmer, and Champa folk in the Mekong Delta. **Materials and methods:** a cross-sectional descriptive study of 1694 first-grade pupils at elementary, middle, and high school in the Mekong Delta from September 2020 to June 2021. The sample size was selected according to the cluster sampling method. **Results:** The number of males and females was not significantly different. The proportion of children of the Kinh and Khmer ethnic groups is similar and superior to the Champa ethnic group. At the elementary and middle school, the Kinh ethnic boys and girls' weight is highest ($p < 0,05$). Until high school, the Kinh ethnic pupils' weight was lower than the Khmer or Champa ethnic pupils' ($p < 0,05$). At the same age and same sex, we recorded that the children's weight was 3-10kg higher than that reported by the Department of Medicine, Dentistry and Pharmacy at Can Tho University in 1999 ($p < 0.05$). The Kinh ethnic pupils' vertical and sitting height is higher than the others ($p < 0,05$). The nutritional status of children in Can Tho has gradually improved compared with the study of Le Dinh Van in Thua Thien Hue and the WHO report in 2007. Almost BMI indexes in first-grade pupils of elementary and middle school are $< 18,5$. The nutritional status of students of all ethnicities improved significantly when they reached the age of 15. Our Skelie indexes show that almost boys and girls have long legs, outperforming Le Dinh Van's results and the Faculty of Medicine, Dentistry and Pharmacy report at Can Tho University in 1999 ($p < 0.05$). QVC is only relatively accurate in older children aged 16 years or older, so our results are for reference only. **Conclusions:** Most measurements and anthropometric indices were higher in boys than in girls ($p < 0.05$). The Kinh ethnic pupils' anthropometrical measures and indexes are higher than the Khmer or Champa ethnic pupils' ones at the first grade of elementary and middle school, but they are lower than the others in the first grade of high school. Measurements and anthropometric indexes of primary school students improved significantly compared to previous studies ($p < 0.05$). The growth in height, especially the length of the lower limbs, is clearly improved.

Keywords: anthropometrical, measures, indexes, first-grade pupils