

COMPARATIVE ANALYSIS OF PHYSICAL DEVELOPMENT AND MORPHOFUNCTIONAL TRAINING OF HIGHLY QUALIFIED SPORTS STUDENTS OF WATER SPORTS IN THE CONDITIONS OF SEXUAL DIMORPHISM

Braniste Gheorghe,

State University of Physical Education and Sport, Chisinau

Keywords: anthropometry, physical development, physical development indices, morphological maturity, water sports.

Actuality. The morphofunctional suitability of rowers, swimmers and water polo players for the realization of potential opportunities in long-term preparation is assessed by comparing the parameters of their morphofunctional indicators with the model characteristic for the chosen sport.

The purpose of the study is a comprehensive assessment of physical development and morphofunctional training of highly qualified sports students of water sports.

Methods of research. To assess the physical development of morphofunctional training, a set of anthropometric and morphofunctional screenings were conducted in the laboratory of the Medical Center of the Olympic Reserve of the Republic of Moldova

A comparative analysis of qualitative and quantitative anthropometric indices of water sports athletes showed that closely related sports specializations conditioned by a sports ecological niche under the strict requirements of competitive activity formed specific morphotypes of athletes.

In particular, swimmers of both genders are characterized by the largest length of the body with the least weight and circumference of the thorax inclined to the ectomorphic somatotype, providing buoyancy and less sediment.

Academics – rowers, kayaks and canoes rowers mesomorphically differ, i.e. athletic somatotype, the water polo players are characterized by a meso-endomorphic physique, which contributes to better development conditions and the transfer of specific labor forces.

The higher rates of physical development and morphological maturity of men in comparison with women predetermine their advantage in absolute values of physical working capacity (PWC170) by 17.8%, in the MIC by 11.7%, in heart volume (HV cm³), by 20.7% systolic blood volume (SBV) by 12.3%. In relative terms, women surpass men by 12.1% in physical working capacity and heart volume by 10.9%.

Conclusion. The mechanism of long-term adaptation of the organism of athletes under the harsh conditions of competitive activity and the sports ecological niche is the basis for the formation and increase of special working capacity, which is externally expressed in its morphofunctional specialization.

The latter is understood as selective adaptive improvement of the morphofunctional capabilities of the organism that are of decisive importance for the chosen sport and the development of those morphofunctional changes that are the material basis of specialized hyperfunction of the organism.