

Assessment of the Physical Development of Wrestlers Based on Anthropometric Research Methods Involved in Belt Wrestling, Taking Into Account Weight Categories

Mirzabekov Ibrokhimjon Adhamjon ugli
Andijan State University

Gulyamov N.G
Physical culture of Uzbek state institute

Abstract:

In assessing physical development, the indicators of total body size were analyzed, and from partial sizes - long, latitudinal and girth sizes of wrestlers. The skin-fat folds are taken from 4 regions of the body, on the back of the shoulder, under the shoulder blade, on the abdomen and on the side. The greatest thickness of fat folds was found in the abdominal region, the value of fat folds was 6.4 ± 5.06 mm, and on the side 7.7 ± 4.92 mm (Table 3). Of the latitudinal dimensions, the shoulder width is on average 42.4 ± 4.65 cm, the mid-chest transverse size and the mid-chest sagittal size were 31.6 ± 3.08 and 21 ± 3.6 cm; the pelvic width was 29.9 ± 3.97 cm. The chest circumference at rest was 95.9 ± 8.95 , when inhaled 103.03 ± 10.08 cm, when exhaled 91.6 ± 9.0 cm, chest excursion was 11.13 cm, which is regarded as a positive indicator (Table 1).

Keywords: loads skin-fat folds hip girth physical fitness

Introduction

Research materials and methods. It should be noted that all indicators of girth sizes showed moderate variability. Fluctuations in the value of the mean square deviation for the shoulder width were $x - 4.65$, For the mid-chest transverse and concittal - $x - 3.08$ and $x - 3.60$, for the pelvic width - $x - 3.97$, for the shoulder $x - 4.34$, for the forearm 5.77 – this indicator is higher than the average value and finally, $x - 4.35$ was for the lower leg. In the sample of 39 wrestlers studied by us, the average values of indicators for the considered anthropometric parameters are presented and analyzed. However, for a complete and accurate assessment of the physique features of belt wrestlers, the sample under study is conditionally divided into 4 weight categories. Further morphological studies with an assessment of physical development were carried out on the basis of total signs, taking into account the weight category of wrestlers on belts. There are 8 weight categories in belt wrestling, which we have grouped into 4 groups: so the light weight category was made up of wrestlers weighing from 55 to 69 kg; to the average weight category - from 71 kg to 81 kg; the heavy weight category was made up of wrestlers weighing from 82 kg to 100 kg. And

finally, the 4th group included wrestlers whose weight is considered to be absolute, which is over 100 kg.

Wrestlers who can be classified as light weight categories are characterized by a body length averaging 171.03 ± 8.03 , a mass-growth index of 370.6 ± 25.1 g/cm, chest circumference at rest averages 90.2 ± 2.9 cm

Table 1

Table 1 presents data on the total body size of wrestlers on belts with weight values from 79-81 kg: so the average weight value is 75.8 ± 2.8 , body length is 176.3 ± 3.5 , which is 5.33 cm higher compared to lightweights, chest circumference is 95 ± 3.2 cm, which is 4.8 cm more, than lightweights. MRI (mass-growth index) was 430.2 ± 17.5 g/cm. Table 3.6 shows the indicators of physical development of wrestlers on belts belonging to heavy weight categories. The average body weight is 87.9 ± 5.2 kg, body length is 180.7 ± 4.5 cm, chest circumference is 101.7 ± 5.4 cm. The mass-growth index was 485.9 ± 35.3 g/cm, which is 55.5 cm more than the average weight. In the belt wrestlers examined by us, who have an absolute weight, that is, above 100 kg, the body height was 181.3 ± 4.7 , the mass-growth index was 596.7 ± 45.4 , which is 10.8 cm more than in the previous weight category. The chest circumference was 103.3 ± 11.9 cm, which is 1.6 cm more than that of wrestlers on belts belonging to the heavy weight category.

Conclusions. Currently, the problem of finding the most informative criteria for evaluating the effectiveness of the means and methods used to train qualified wrestlers is particularly relevant. In the practice of sports, it is solved in two ways: firstly, by accurately quantifying the level of development of individual metabolic functions of athletes during in-depth examinations using standard laboratory tests and, secondly, by evaluating the manifestation of the identified

№	Full name	Discharge	Weight	Height	MRI	Girth g/cl at rest
1	Dilshodbekov A.	ms	60	161	372,6	93
2	Buribaev Olimjon	kms	64	170	376,4	90
3	Olimov Ihlos	ms	65	174		87
4	Bobojonov M	kms	65	161	389,2	92
5	Yoqubjonov G'iyos	kms	65	178	365,1	92
6	Mamirov Sardor	kms	68	173	393,0	91
7	Murodov Muhammad	kms	69	179	398,8	87
8	Soipov Shoxrux	ms	69	185	377,6	95
9	Qobilov A	kms	54	168	321,4	88
10	Maxmashev A.	kms	56	164	341,4	87
$\bar{x} \pm \sigma$			63.5 ± 5.4	171.3 ± 8.03	370.6 ± 25.1	90.2 ± 2.9

capabilities in conditions modeling specific competitive activity. The assessment of physical development and functional condition indicates that the values of indicators such as heart rate, MPC, PWC-170, IOC, IGST, indicate both the level of fitness and recovery time.

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