

traditional strategy of adaptation in terms of evolutionary psychology. Low SS on the contrary would lead to a preference strategy aimed at preserving themselves and at long-term relationship. The study was supported by Program of Strategic development of Perm state humanitarian-pedagogical university, project No. 26-F.

Key words: *sensation seeking, health-protecting behavior, reproductive strategies*

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INTERDAILY VARIATIONS OF BODY COMPOSITION PARAMETERS IN YOUNG WOMEN

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The objective of the study is to determine the size of the changes of the selected body composition parameters during one week. The research was executed with a group of 40 women with the average age of 21.29 ± 1.45 years. The measured parameters were: total body weight (BW), body fat representation (BF) and total body water (TBW). The monitored parameters were measured using the Tanita BC 418 MA tetrapolar bioimpedance scale. The measurements took place during one week (Monday – Friday). The error of the device was expressed with the typical error of measurement (TE) by Hopkins from three repeated measurements in one day (Monday). Only one measurement was taken on the remaining days. To evaluate the size of changes during the week, we used the ANOVA repeated measures. The practical significance was verified using Eta-squared. To express the size of the error of measurement in the weekly analysis, we used typical error of measurements (TE). The TE values expressing the accuracy of the device measurements were the following: BW 0.06 kg, BF representation 0.22 kg and 0.39%, TBW representation 0.17 kg and 0.29%. The differences found between the mean values of the monitored parameters during the week ranged from 0.00 – 0.15 kg in BW, 0.03 – 0.29 kg and 0.01 – 0.48% in BF, 0.00 – 0.21 kg and 0.00 – 0.35% in TBW. The practical significance was not established despite the fact that statistically significant differences were determined. The changes in the monitored body composition parameters during the week were very small, which was confirmed by the low practical significance values. When interpreting the results of repeated measurements, the values exceeding the level of the TE weekly analysis are considered to be a change. In BW, the value was 0.33 kg, in BF 0.41 kg and 0.70% and in TBW 0.41 kg and 0.51%.

Key words: *body weight, body fat, total body water, typical error of measurement, statistical significance, practical significance*

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CHARACTERISTICS OF PHYSICAL GROWTH AND DEVELOPMENT IN MONGOLIAN MALE ATHLETES

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Sports training is the process which requires years of hard work and can not accomplish its main goal without considering human growth and body development characteristics, level of physical preparation. Anthropometric and morphologic examination of Mongolian athletes has not been conducted. Therefore, the results are of great value to theory and practice of sports science. Anthropometric examination and data collecting have been carried out at Sport Center of Mongolian Olympic team of the city Ulaanbaatar.

The study comprised 581 athletes aged 17–25 years. Each athlete has been involved in 45 measurements and 20-questions survey. As a result of this study we come to the conclusion that sports activity strongly influences on physical growth and development. Training for different kinds of sports is different. The basketball players and field athletes (runners) were the tallest (average height 179 cm). Wrestlers were the shortest in height (average 166.5 cm). Compared to people who do not go in for sport, the athletes were taller by 4.5 cm. Mean height of Mongolian male sportsman is 172.6 cm. Geographical zones from where the athletes originate also influence on physical development. Sportsmen from steppe zone have bigger body, and those from Gobi desert zone are smaller but have bigger fat mass. Basing on these results, it can be suggested that marathon runners can be selected from Gobi inhabitants, wrestlers – from steppe population, and players – from mountain-taiga people.

Key words: *physical growth and development, anthropometry, physical training, athletes*

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MORPHOFUNCTIONAL CHARACTERISTICS OF MALE ADOLESCENTS FROM REPUBLIC ALTAI, PRACTICING SAMBO WRESTLING

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The purpose of this research is to determine and compare morphofunctional characteristics and body traits of male juvenile sambo wrestlers, who live in the southern and northern areas of Republic Altai, Russia. The sample included 65 males, practicing sambo wrestling on a regular basis. The research protocol included anthropometric examinations (height, weight, and chest circumference) using a standard anthropometric measurement methods. Collected data of somatic characteristics were converted into Quetelet Index for BMI; the somatotypes were identified by using Chernorutskiy's classification. Evaluation of constitutional type was based on the ratio of height, weight, and thoracic circumference. Sambo athletes from the northern part of Republic Altai are taller and have more body mass and larger chest circumference in comparison to those from the southern part of Republic Altai. The height of athletes from the north is 6.1 cm higher than of those from the south (174.4 ± 1.66 cm vs 168.3 ± 1.12 cm, $p < 0.001$). Body mass of sambo athletes from the north is 6.2 kg bigger than of those from the south (67.8 ± 1.97 kg vs 61.6 ± 1.12 kg, $p < 0.05$). The chest circumference of athletes from the north is 3.7 cm larger (88.5 ± 1.33 cm vs 82.4 ± 0.98 cm). Values of Pignet Index show that the participants from the north have predominantly hypersthenic body type, while normosthenic and "average" body type is mostly represented among sportsmen from the south ($p < 0.05$). Thus, the sambo athletes from the north are characterized by significantly higher anthropometric features – height, weight, and chest circumference. Northern participants have predominantly hypersthenic body type while asthenic and normosthenic types are more often observed among the participants from the southern area.

Key words: *Republic Altai, male sambo athletes, somatotypes, anthropometry, Quetelet Index, Pignet Index*

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