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Analysis Of Life Index (Li) Indicators Of Young People Of Military Age In Different Local Regions Of The Republic Of Karakalpagistan

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ABSTRACT

The comparative characteristics of anthropometric and morphofunctional parameters of teenagers of military conscription age in different regions of Karakalpakstan were studied

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Today, strengthening and protection of human health on a global scale, studying their theoretical foundations is one of the urgent problems in the field of physiological, medical and environmental sciences. Especially in various regions, it leads to deterioration of physical development and health indicators of the young population. Accordingly, it is important to develop measures to study the characteristics of morphofunctional indicators of physical development of adolescents of military service age.

In recent years, extensive scientific research has been conducted in the world to study the state of physical development of the young generation and to evaluate the morphological and functional indicators that determine the adaptive capabilities of the development of the human organism and its interrelationship with the environment. We carried out a comparative characterization of anthropometric and morphofunctional parameters of teenagers of military conscription age in different regions of Karakalpakstan.

It can be concluded from the obtained data that Karakalpakstan is characterized by a sufficiently large age-related variability in terms of morphofunctional indicators studied in teenagers of military draft age living in different regions. The conducted studies showed that the body growth (176.27±6.8 cm) of adolescents of the military draft age studied in the Southern regions from the age of 19 naturally increases with age. Body growth indicators (176.67±5.2 cm) of adolescents of military draft age living in the northern regions. The analysis of life index (LI) indicators of teenagers of military draft age living in different regions of the Republic of Karakalpakstan showed that in the Northern regions (52%), Southern regions (67.2%) and Central regions (53.3%) of teenagers of military draft age the vital index is low. Also, there are significant differences in the mean rates of LI, for adolescents of military conscription age in the Northern regions, this figure was 26.5%, while for adolescents of military conscription age in the Southern regions it was only 24.1% (Table 1).

Table 1

Adolescents of military conscription age living in the Republic of Karakalpakstan LI (%)

Age	Number	Life Index (LI) (%)								
		Below average			Average			Above average		
		North	South	Central	North	South	Central	North	South	Central
19	203	81,8	70,8	81,5	13,7	16,7	13,7	4,5	12,5	4,8
20	218	40,9	58,3	41,5	50,0	41,7	48,9	9,1	-	9,6
21	210	33,3	72,7	37,1	52,4	22,7	50,3	14,3	4,6	12,6

The analysis of life index (LI) indicators of teenagers of military draft age living in different regions of the Republic of Karakalpakstan showed that the level of life index of teenagers of military draft age in the Northern (62.5%) and Southern regions (48.7%) is low. The LI rate of military-age teenagers in the Central Regions is 11.0%, while the figure for military-age teens in the Southern Regions is slightly higher - 27.7%. A comparative assessment of the external respiratory indicators of youths of military draft age living in different regions of the Republic of Karakalpakstan showed that 19-year-old youths of military draft age living in the Southern regions have a high level of individualized lung capacity. At an older age (20-21 years), depending on the decrease of this indicator, a redistribution of LI is observed (Tables 2-3).

2 tables

External respiratory parameters of teenagers of military conscription age living in different regions of the Republic of Karakalpakstan (19 years old)

Indicators	Northern regions (n=200)	Southern regions (n=195)	Central regions (n=236)
Respiratory rate (number of breaths per minute)	16,6 ± 0,02*	16,4 ±0,04*	16,7±0,03
the living capacity of the lungs ml	2966,6±0,48*	3476,6 ± 0,73*	3205,8±0,56
maximum lung ventilation(in 1 minute)	78,8 ±4,35*	101 ±5,23*	83,8±5,61

Note: (*) indicates reliable comparative differences with other districts

Table 3

External respiratory indicators of teenagers of military conscription age living in different regions of the Republic of Karakalpakstan (20-21 years old)

Indicators	Northern regions (n=135)	Southern regions (n=158)	Central regions (n=135)
Respiratory rate (number of breaths per minute)	16,8 $\pm$ 0,53	15,6 $\pm$ 0,61*	16,8$\pm$0,03
the living capacity of the lungs ml	3312,6 $\pm$ 0,43	3304,4 $\pm$ 0,28*	3396,4$\pm$0,6*
maximum lung ventilation(in 1 minute)	94,2 $\pm$ 3,24*	106 $\pm$ 5,62*	85,1$\pm$5,10

Note: (*) indicates reliable comparative differences with other districts

Summarizing the results of the comparative assessment of the external respiration indicators between the age groups of all the studied youths of military conscription age, it can be said that the breathing rate of teenagers

of military conscription age in both age groups in the Northern regions was slightly higher than that of teenagers of military conscription age in the Southern regions.

In the group of 21-year-old adolescents, ŬMB showed an increase in respiratory reserve capacity (P<0.05), which was significantly higher for adolescents of military draft age in the southern regions than in adolescents of military draft age in the northern and central regions. As it is known, 120 l of ŬMB is an important respiratory limit, above which the energy cost of working with an external breathing apparatus becomes particularly significant. In the group of 21-year-old adolescents, ŬMB showed an increase in respiratory reserve capacity (P<0.05), which was significantly higher for adolescents of military draft age in the southern regions than in adolescents of military draft age in the northern and central regions. As it is known, 120 l of ŬMB is an important respiratory limit, above which the energy cost of working with an external breathing apparatus becomes particularly significant.

Thus, the information obtained about the state of external respiration in teenagers of military draft age allows us to think about the process of implementing the genetic program for the development of the organism (morphogenetic and sexual characteristics) during youth. Low-grade HI (70.8%) was more common in 19-year-old draft-age adolescents, compared to 16.7% for average and 12.5% for above-average. Young men with an average HI index of 20-21 years of military service age living in central regions showed that there are more young men: 20 years - 48.9%, 21 years - 50.3%. Thus, the conducted research showed that depending on the place of residence of adolescents in the age group (20-21 years), the highest indicators in terms of SAB and DAB were determined for adolescents of military draft age living in the Southern and Central regions of Karakalpakstan. The determined indicator of SAB, which increases to 120 mm Hg in the studied individuals, may be considered as a risk factor for the emergence of hypertensive conditions, depending on the environmental and climatic conditions in the Republic of Karakalpakstan.

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