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Level of physical development of 13-15 year old students who are involved in swimming and school physical education

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ABSTRACT

The researches are carried spent according to physical development of the schoolboys and swimmers physical conditions in dynamics (changes) from 12 till 15 years. In the compared groups, differences were found not only in the increase in physique indicators, but also in the increase in functional capabilities and the formation of a promising somatotype in swimming

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Сузиш ва мактаб жисмоний тарбиясига жалб этилган 13-15 ёшли ўқувчиларнинг жисмоний ривожланиш даражаси

Калит сўзлар:
сузиш билан шуғулланиш,
антропометрия
кўрсаткичлари,
интенсив ўсиши,
индивидуал ёндашув,
13-15 ёшдаги сузувчилар.

АННОТАЦИЯ

Антропометрия усули асосида 13-15 ёшли мактаб ўқувчилари ва сузиш билан шуғулланадиган ўқувчилар-нинг жисмоний ривожланиш даражаси орасидаги солиштирма таҳлили ўтказилди. Кўрсатилган индивидуал тараққиётнинг босқичида текширилаётган ўспирин-ларнинг тана тузилишидаги тотал ва парциал ўлчовлари солиштирилди.Текширилаётган гуруҳдаги ўспиринлар орасида нафақат тана тузилишида ўзгаришлар, балки функционал имкониятларининг ошиши ва сузиш учун истиқболли бўлган соматипларнинг шаклланиши кузатилди.

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Уровень физического развития студентов 13-15 лет, занимающихся плаванием и школьной физической воспитанией

Ключевые слова:
практика плавания, антропометрические показатели, интенсивный рост, индивидуальный подход, пловцы 13-15 лет.

АННОТАЦИЯ

С использованием методов антропометрии проведена оценка физического развития школьников занимающихся физической культурой в рамках школьной программы и подростков пубертатного возраста занимающихся плаванием в возрасте от 12 до 15 лет. Проведен сравнительный анализ в приросте показателей тотальных и парциальных размеров в процессе индивидуального развития. В сравниваемых группах установлены различия не только в приросте показателей телосложения, но ино и в повышении функциональных возможностей и формировании перспективных для плавания соматотипов.

INTRODUCTION

According to the pediatric service of the Ministry of Health of the Republic of Uzbekistan, 23% of adolescents in the country are included in 1 risk group, which recommends examination and control of the cardiovascular system, 33% of children in the group were diagnosed with various diseases of the respiratory and digestive systems. The group's defense – the weakening of the immune system, the emergence of various diseases. In 20% of children, various diseases of the musculoskeletal system have been reported.

LITERATURE ANALYSIS AND METHODOLOGY

The following are the most common diseases in the analysis of the health of 13-15-year-old students who are engaged in swimming and physical education in the school program – diseases of the cardiorespiratory system, vegetative-vascular dystonia, functional cardiopathy, overweight. those who conducted research. Bulgakova N.J., Morozova T.S. 2003, Serdyukovskaya G.N., 2009, Seluyanov V.N., 2009, Ikramov A.I., Akhmedova D.I., 2010, Rumba O.G., 2011, Xubbiev Sh.Z., 2012, Yu.Ya.Lobanov, 2018). But the separation of sick or debilitated children in schools according to the type of disease, it is necessary to take into account what pathological processes develop in the systems that make them up (Tsvek S.F., Yazlovetsky B.C., 1983, Bratukhin A.G., 2007, Kim M.A., 2008, Sonkin V.D., 2009, V.B. Krutko, 2009, Kodaneva L.N., Belokrinkina A.V., 2018). Restoring the health of such children is the responsibility not only of medical staff but also of specialists in the field of physical education.

Physical culture allows children with health deviations to discover or demonstrate latent physical activity abilities. Therefore, it is necessary to effectively use physical education to restore and strengthen the health of children of different ages, to prevent various diseases. However, school programs do not pay enough attention to the individual approach of students using physical education, depending on the level of physical development, functional status, level of health. Schools, on the other hand, have not only studied the educational process, the benefits of shaping the health of children and adolescents, and the health benefits of exercise.

Analysis and results: To address the issues raised in the article, monitoring of the level of physical development of 13-15-year-old schoolchildren and young athletes engaged in swimming was conducted. To do this, total and partial measurements were

analyzed in each age group of children using anthropometric and functional methods. From the analyzed anthropometric indicators, growth processes were observed based on body length, the increase in growth in children aged 13-14 years was 3.6%, and in schoolchildren – 2.3%. It is known that the degree of variability of the indicator of body length is almost not high, because the degree of inheritance of this trait is 97% and is overestimated (L.P. Sergienko, 2003). In swimmers, the age-related increase in arm and leg length was higher than body length and was 10.3% for arm length and 9.4% for leg length between the ages of 13 and 14, and 7% for school children. Growth processes continue between the ages of 14–15 years, reaching 9.8% for the foot (Table 1).

Table 1

Comparative analysis of the results of students swimming in secondary school No. 29 in Margilan, Fergana region and teenagers swimming in the swimming pool "Dolphin" in Fergana

Indicators x±σ		Age									
		13-year-old swimmers	13 year old school students	14-year-old swimmers	14-year-old school students	The growth rate is 13% -14 years old floating	The growth rate is 13% for students aged 14-14	15-year-old swimmers	15-year-old school students	Growth rate% 15 year old float	Growth rate% 15 year old students
		n=15	n=20	n =16	n=20			n=16	n=20		
1	Body length, centimeters	165,25±0.99	153,77±1.05	169.0,47±1.09	157,4±0.65	3.06	2,3	174,7±0.86	161,5+2.23	3.2	2.5
2	Weight, kg	50.28± 6.93	40.3, ±1.94	56,3±0.65	43,1±0.85	11,9	10.7	65,53±0,88	54,6+1.59	7,5	14,5
3	The arm is long, centimeters	67,5±9,57	63,8±3.83	75,25±6,98	68.51±3,9	10.3	7.0	80,78±4,26	73.1± 4.1	6.9	6.3
4	Leg length, centimeter	86,74±4,85	65,2±4,69	91,97±5,21	75,1±6,3	9.4	8.6	94,3±4,32	79.7+3.8	9.8	9.3
5	Shoulder width, centimeters	32,95±1,8	29.6±2,2	36,69±2,87	32.4±2,99	10.1	8.6	40,43±2,67	34,43+2.5	9.2	6.0
6	The circumference of the chest is centimeters	77,03±5,48	73,57±6,21	81,08±4,75	76,58±5,12	5,2	4,1	89,12±5,41	80,73+4.4	9,9	5,4
7	the vital capacity of the lungs	3,08±0,46	2,6±0,34	3,43±0,61	2.8 ±0,56	11,4	7,7	4,38±0,77	3.2+0,67	27,7	14,3
8	Body strength, klogramm	82,88±9,19	76,8±4,10	87,08±8,58	80,28±6.81	5,1	4,5	110,75±6,90	90,15+7,38	27,2	12,6

Shoulder width and chest circumference are also characterized by more intensive growth in swimmers than in school children, and changes in these indicators with age can be observed in swimmers and schoolchildren. If in the age group of 13-14 years in swimmers increased the vital capacity of the lungs (lung capacity increased by 11.4%, by the age of 15 – to 27.7%). specific physical loads are applied. The body responds to loads due to the activity of a specific functional system. Thus, a morphologically homogeneous sport affects the body structure of a specialized athlete and leaves its "mark". Only positive somatic changes as a result of regular exercise, but the development of aerobic capacity and strength qualities (body dynamometry indicator) indicates qualitative changes. In 15-year-old swimmers, the increase in torso muscle strength was 27.2%, while in schoolchildren it was 12.6%. increase in performance, functional indicators Increased vital capacity of the lungs, intensive increase in the length of the arms and legs provide the formation of somatotypes of thoracic-muscle type and muscle type in swimmers.Digestive type somatotype formation was not observed among swimmers. In the case of young swimmers, the age range of 13-15 years corresponds to the stage of deep specialization of training from the initial stage. Growth, along with developmental

processes, leads to increased mobility activity and the formation of swimmer-specific morphotypes.

CONCLUSIONS AND SUGGESTIONS

When examining 13–15-year-old swimmers and school-age students, it was observed that body measurements included body weight, length, chest circumference, and lung vital capacity in swimmers above normal. The formation of thoracic-muscular and muscular somatotypes has been identified in swimmers aged 13–15 years, and these somatotypes are promising in the sport of swimming. The level of physical development in children who engage in swimming compared to students who do not participate in sports on a regular basis varies not only with age but also as a result of the exercise process.

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