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Technical Parameters of Physical Fitness as a Factor in Managing the Training Process of Young Athletes

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Abstract: Physical fitness is the result of physical preparation for a certain type of activity. It is characterized by the level of development of the leading quality for a given activity (endurance, strength, agility, flexibility, speed) and the degree of mastery of leading skills (high, medium, low). Basic morning exercises include such exercises as bends (standing and sitting), squats, all kinds of rotations (head, shoulders, knees, arms, elbows, feet), and so on. Physical training is a process of regular and systematic performance of physical exercises. Physical perfection is the highest degree of development of individual physical abilities. According to structural features, physical exercises are divided into cyclic (walking, running, skiing, swimming), acyclic (lifting weights, jumping or throwing from a place, attack and self-defense techniques) and mixed (running throws, running long and high jumps, movements in sports games).

Key words: self-defense/ movements in sports games/ running throws/ running long and high jumps/ physical exercises/ physical perfection.

Introduction.

Physical fitness is the result of physical preparation for a certain type of activity. It is characterized by the level of development of the leading quality for a given activity (endurance, strength, agility, flexibility, speed) and the degree of mastery of leading skills (high, medium, low). The forms of physical fitness include:

- Morning physical exercises;
- Classes;
- Physical training during combat training.

Exercises (morning exercises; exercise exercises) are a gymnastic complex of physical exercises performed in the morning after waking up to speed up the transition from sleep to active activity. It is part of therapeutic physical culture.

Basic morning exercises include such exercises as bends (standing and sitting), squats, all kinds of rotations (head, shoulders, knees, arms, elbows, feet), and so on. Choose the exercises you like, diversify your morning exercises.

Morning physical exercises are performed to quickly bring the body into a vigorous state after sleep and for systematic physical training. Exercises are a mandatory element of the daily routine, they begin 10 minutes after waking up and are performed daily, except for weekends and holidays.

The main parts of physical education are physical exercises, GTO, hardening (rubbing, dousing, bathing), hygienic gymnastics, tourism, physical labor.

Physical training is a process of regular and systematic performance of physical exercises. Physical perfection is the highest degree of development of individual physical abilities.

According to structural features, physical exercises are divided into cyclic (walking, running, skiing, swimming), acyclic (lifting weights, jumping or throwing from a place, attack and self-defense techniques) and mixed (running throws, running long and high jumps, movements in sports games).

The rapid progress of sports skills in artistic gymnastics makes it necessary to study the process of training athletes in more detail and to look for opportunities for its further improvement. The most promising, in our opinion, are those that are based on the solution of the problem of the efficiency of managing the process of sports training. The use of model characteristics by coaches of various qualifications in their practical activities opens up broad prospects for solving this problem. In particular, the structure of model characteristics of gymnasts includes physical, technical and other types of training. Due to the fact that technical training in gymnastics is the foundation of the educational and training process, the improvement of the means and methods of teaching sports exercises is constantly relevant. And since the level of technical training of athletes is based on their physical fitness. The problem of identifying model characteristics as a factor in managing the training process of young gymnasts is that the structure of the "gymnastic ideal" is constantly changing due to the age characteristics of those involved. For this reason, some factors can be decisive in the early stages of growth of sports and technical skills, others - in the following stages; finally, a certain combination of the third and fourth signs may become dominant at further stages of the training process.

In this regard, identifying the most significant factors in the structure of physical fitness, as well as the dynamics of the level of development of physical qualities in the age aspect is relevant in light of today's requirements. Hence the need for their further study, expansion and supplementation.

Since achieving high sports results in children's and youth sports is considered a promising goal, then control standards (in the form of proper standards of physical fitness of those involved) are undoubtedly a certain guideline for the pedagogically sound construction of the educational and training process of young athletes and acquire special significance.

However, quantitative assessment of model characteristics is carried out extremely rarely, which is associated with the insufficient distribution in gymnastics of the methodology that allows ranking the components of physical fitness according to their importance in the overall structure of physical fitness.

In connection with the above, the relevance of our study is determined by the existing, and currently increasingly acute, need to manage the training process of gymnasts based on model characteristics of their physical fitness.

It was assumed that the model characteristics of the main indicators of special physical fitness developed and implemented in practice will be a factor in the effective management of the training process of young gymnasts;

It was believed that the development of "lagging" physical qualities to the model level will contribute to a better mastery of the technique of gymnastic exercises.

The object of the study was the management of the training process of young gymnasts aged 7-11 years, aimed at improving their athletic skills through the use of model characteristics of physical fitness.

The subject of the study was the model characteristics of the special physical fitness of young gymnasts aged 7-11 years.

The aim of our study was to identify model characteristics of physical fitness of gymnasts aged 7-11 years and to practically test the effectiveness of training process management based on physical training.

The scientific novelty of the research results is as follows:

- the structure of special physical fitness of gymnasts aged 7-11 years was determined;

- the dynamics of the level of development of physical qualities in the age aspect was revealed;

- standards of special physical fitness in the form of model characteristics of young gymnasts were developed;

- the effectiveness of using the developed model characteristics in the system of training management of 10-year-old gymnasts was proven.

The theoretical significance of the study consists in:

- substantiation of the required (model) level of development of physical qualities of young gymnasts at the stages of selection and initial training;

- identification of the dynamics of the leading factors of physical fitness, involved depending on the age aspect;

- supplementing the course "Gymnastics and Teaching Methods" and the course on PFSS, a section of metrology related to the development of model characteristics and management of the training process through monitoring the motor potential of those involved.

The practical significance of the work lies in:

- specifying the content of the structure of special physical fitness of gymnasts aged 7-11;

- creating and implementing into practice regulatory requirements for the level of development of physical qualities of young gymnasts;

- defining model characteristics of special physical fitness of gymnasts aged 7-11;

- individualizing special physical fitness of gymnasts aged 7-11 through targeted impact on physical qualities that do not meet the model;

- optimizing the process of managing the physical fitness of gymnasts aged 10, essential ways of substantiating the correct training program were found, based on the provision on the readiness of gymnasts to master the material of the classification program.

The developed model characteristics were experimentally tested and implemented in the educational and training process in Bukhara and Samarkand. The results of the study can be recommended for implementation in children's and youth sports schools as well as in the educational and methodological section of the gymnastics course in the institutes of physical education of the country.

The main provisions submitted for defense:

1. The dynamics of the factor structure of physical fitness of young gymnasts depends on age and length of training. The age period from 7 to 11 years is the most favorable for the development of maximum strength abilities. At the same time, during this period, no significant changes occur in such a physical quality as flexibility. The greatest increase in such physical qualities as strength, special endurance, flexibility and coordination abilities in young gymnasts is noted at the age of 8.

2. Assessment scales, regulatory requirements for indicators of special physical fitness, weight coefficients of the tested indicators, model characteristics of physical fitness allow us to objectively assess the level of development of physical qualities of young gymnasts, determine the features of their development and correct the process of physical training in accordance with the individual characteristics of the athlete.

3. Management of gymnasts' physical training based on eliminating weak links in their physical fitness helps to increase the level of development of physical qualities to the model level in 75% of tests from the complex, as well as sports and technical results in exercises on the bars.

1. To improve the efficiency of management of gymnasts' physical training, it is necessary to have assessment scales for assessing the results of control tests, regulatory requirements for indicators of special physical fitness, weight coefficients of the tested indicators and model characteristics of physical fitness.

2. Comparison of the actual state of physical fitness of a gymnast with the model characteristics of SFP indicators allows to assess the level of his physical fitness at the time of examination, determine the features of the development of physical qualities, identify shortcomings and advantages in physical fitness and correct the process of physical training in accordance with the individual characteristics of the athlete.

3. When implementing the process of correction of physical fitness of gymnasts aged 7-11, special attention should be paid to the leading factors in the structure of their physical fitness, to the periods of acceleration and deceleration of growth indicators, indicators characterizing the all-around and species models of the gymnast.

4. The effectiveness of the methodology for managing the physical fitness of gymnasts is achieved due to the predominant focus of this process on eliminating weak links in their physical fitness.

A characteristic feature of artistic gymnastics is its constant rejuvenation and complication of competition programs. The process of sports training takes place against the background of the biological development of the child's body, which requires careful study and consideration of its morphofunctional features in the age aspect.

There is a close relationship between the technical training of the gymnast and the degree of manifestation of physical qualities, primarily such as various components of strength and flexibility. At the same time, physical qualities act as a leading factor, especially at the stage of preliminary and initial training of young gymnasts. Due to the steady growth of technical skills of gymnasts and the complexity of competitive exercises that require greater physical effort and precise coordination, there is an urgent need to develop new ways to improve the training process of young gymnasts at each stage of their preparation.

Analysis of literary sources and current curricula, study of reports of the heads of a number of boarding schools and conversations with teachers-coaches revealed a significant lag of most students from the requirements of the sports program, as a rule, due to poor strength training.

Despite the fact that general education boarding schools with a sports profile were created more than 10 years ago, the effectiveness of the current training program for the development of physical qualities during the entire period of training has not yet been identified. At the same time, observations, analysis of survey data from leading coaches show that some of the mentors achieve good results in the development of strength and flexibility, on the basis of which they successfully improve the technical skills of their students. However, their positive experience has not yet been generalized and reflected in specialized literature. The methodology of teaching complex exercises based on the advanced development of significant strength qualities using combined modes of muscle work has been experimentally tested and implemented in the educational and training process with young gymnasts of the boarding school of the sports profile of the city of Bukhara. This methodology has made it possible to reduce the time it takes to teach young athletes to swing forward and swing backward on the bars and vault with bent legs and to improve the quality of their performance. 1. Three-year studies of the dynamics of the development of strength qualities and flexibility of gymnasts aged 9-16 years, studying at the boarding school of the sports cross, show that muscle strength and joint mobility increase with age. At the same time, the changes in both absolute and relative indicators of muscle strength in different age periods are characterized by unevenness. The rate of increase in total absolute muscle strength is highest at 9-1, 13-14 and 15-16 years. The period of 12-13 years is characterized by a slowdown in the growth of these indicators. The total indicator of relative strength reaches its maximum by 14-15 years and slightly exceeds the relative strength of 12-13-year-old gymnasts. An intensive increase in speed-strength indicators occurs from 9 to 12 years, less pronounced - from 12 to 13 years with their subsequent increase by 16 years. Strength endurance has a clearly expressed tendency to increase from 9 to 16 years. At the age of 10-12 years, the most intensive growth of strength endurance indicators is observed. It is somewhat slowed down at 12-13 years, and by

14 years it increases again. At 15-16 years, the ability of muscles for long-term dynamic work decreases, but the ability for long-term static work is created. The highest rates of flexibility growth are observed at 9-2 years.

2. The closeness of the connection between the components of muscle strength decreases with the age of gymnasts. Along with the rapid roar of one strength quality, a slowdown in the growth of another is observed. This fact should be taken into account when choosing the means and methods of training strength qualities in order to achieve the necessary harmony in the level of development of all components of muscle strength. 3. An effective means of training muscle strength and flexibility are methods using combined modes of muscle work and various combinations of active and passive effects. For the development of speed, static strength, strength static and dynamic endurance, it is most advisable to use a set of exercises using combined modes of muscle work according to the scheme: high-speed overcoming + static + high-speed overcoming + slow yielding. Joint mobility is most effectively developed with the help of exercises using combined effects, in which forced stretching with overcoming pain and active action of the gymnast alternate in approximately equal proportions: movement of the link and holding it at the limit point of the amplitude. The same actions can be performed with small weights (I - 1.5 kg). In this case, the most appropriate alternation of passive and active effects is according to the scheme: passive + active + passive + active-passive effect.

4. Based on expert assessments of the technique of the exercises under study with concomitant cinematographic and strain gauge control, a reliable advantage of the experimental groups was revealed, whose preliminary special physical training was carried out using combined modes of muscle work.

5. It is advisable to carry out the training process in the following sequence:

- identifying strength qualities that are significant for the exercises under study based on an analysis of the technique of exemplary execution of the element and the special physical fitness of the performer;
- building a set of means and methods of special physical training using combined modes of muscle work;
- preliminary (advancing) special physical training using combined modes of muscle work;
- studying the technique of the basic exercise.

This sequence of actions can be considered as an algorithm for mastering complex motor skills at the stage of initial specialized training. This fundamental approach to organizing the educational process is fully confirmed by the positive results of the pedagogical experiment.

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