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Improvement of Speed and Strength Abilities in Young Middle Distance Runners

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Abstract: The article analyzes literary sources, which showed that in order to achieve high sports results in middle-distance running, it is necessary to develop special endurance in young runners and its components - general endurance, speed and strength training. Most of the analyzed works indicate that the achievement of a high level of speed-strength fitness is one of the priority tasks of the runner's physical training.

Keywords: athletics, young athletes, physical properties, physical training.

Introduction. The current state of the world level and the development of middle-distance running is characterized by an increase in the level of sports results, an earlier sports specialization of future runners, and the improvement of all forms and methods of their long-term training. At the same time, in recent decades, the Uzbek runners have been chronically lagging behind the world elite, which are associated with an insufficiently effective method of training sports reserves, in particular with the content and methods of training at the initial stages of the formation of a sports reserve, the complex formation of significant physical qualities [1, 2].

Attention is drawn to the fact that many leading experts of both past years and the present rightly pointed out the great importance for the future sportsmanship of middle-distance runners of developing a high level of speed abilities, that is, speed-strength physical qualities, believing that this is the direction training process can ensure success in this kind of athletics [3, 4, 5].

However, in the practice of athletics, the nature and magnitude of speed-strength loads in the training of young middle-distance runners, especially at the initial stages of athletes' training, are still considered ambiguous and contradictory, which, in our opinion, requires its scientific clarification [6, 7, 8].

The analysis of literary sources and best practices shows that in order to achieve high results in middle distance running, a high level of development of special endurance and its components: general endurance, speed and strength training is required. Achieving a high level of speed-strength readiness should be considered one of the important tasks of a runner's physical training [9, 10].

Many authors point to the expediency of the primary education of motor qualities, the development of which is due to the age and physiological characteristics of young athletes [11, 12]. It is believed that if a child does not have a full-fledged formation of basic physical qualities and skills in a timely manner, then fruitful periods for the development of his motor potential can be irretrievably lost [13, 14, and 15].

The development of speed-strength qualities in childhood and adolescence is closely related

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to the level of the child's general physical fitness. The existence of an objective relationship between these indicators is noted in many studies [16, 17, and 18].

Interest in the development of speed-strength qualities is not accidental, because the majority of sports involve speed-strength training. Specialists allocate from the funds aimed at the development of endurance in young runners, the run of short segments; recommend a long run in combination with training for speed, strength, speed-strength training and at the same time warn against the abuse of large amounts of training work of one direction or another [19, 20].

Young runners are advised to pay special attention to speed-strength training and achieving high running speed. In this regard, it is recommended at 15-16 years old to improve the results in the 400-meter run to 50.0-51.5 seconds, and by the age of 16-18 to bring them to 48.5-49.5 seconds. These recommendations served as the basis for the exclusion of the distances of 800 and 1500 m from the program of youth competitions and certainly changed the system of training young runners.

It is clear that in the development of speed-strength qualities in childhood there may be periods of low and high rates of development, due to the heterophony of the maturation of different body systems. Along with scientists, unfavorable periods were found, which are characterized by low rates of development of motor qualities. The development of speed-strength qualities requires adequate means and methods of training. New or little used earlier means. Therefore, when planning the long-term training of an athlete, it makes sense to establish age periods for the use of funds.

As the results of a number of studies have shown, the level of development of absolute muscle strength for middle-distance runners does not play an important role in achieving sports results. More significant than absolute, explosive and speed strength, and especially dynamic strength endurance, which determines the level of development of special endurance of runners.

Numerous studies have shown that at the initial stage of playing sports, versatile training gives the greatest effect; therefore, in training sessions, it is necessary to develop physical qualities through the use of various means and methods of physical education. Already at this stage of training middle-distance runners, considerable attention should be paid to the development of speed-strength qualities. Their manifestation mainly depends on the ability to realize these qualities in a specific motor skill and the ability to maximize the development of muscle strength in a short period of time.

The main means and methods of speed-strength training at the stage of initial sports specialization have been developed, these are:

- > exercises aimed at developing muscle strength and speed of their contraction: running training aimed at developing the speed qualities of athletes, improving running technique and increasing its speed;
- Exercises of a speed-strength nature (jump training).

Versatile training at this stage, with a small amount of running equipment, is more favorable for further sports improvement than specialized training.

Speed-strength training of a young runner should contribute to the development of movement speed and muscle strength. There are three main directions in the speed training of middle-distance runners:

1) High-speed direction, where they solve the problems of increasing the speed of running;

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- 2) speed-strength direction, where they solve the problems of increasing muscle strength and speed of movement;
- 3) Power direction they solve the problems of strengthening and developing the strength of all muscle groups of the runner's motor apparatus.

The main methods of performing exercises: the method of repeated performance of a speed-strength exercise (the method of dynamic efforts); method of repeated performance of static strength exercise; a method of repeated performance of a strength exercise with weights of small and medium weight; circular method; wide application of the game method.

Conclusions. An analysis of literary sources indicates that there is still no clear idea about the most effective distribution of power loads, their places in the periods of the annual training cycle. Their optimal volumes in 125 mesocycles have not been determined. In most works, only general issues of speed-strength training of athletes are considered.

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