



METHOD OF DEVELOPING SPEED-STRENGTH QUALITIES IN YOUNG SWIMMERS 12-14 YEARS

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Abstract: The article discusses the scientific and pedagogical basis for the search for new sports technologies, new methods in sports training in swimming, which allow improving the level of physical fitness of swimmers and thereby the results in sports swimming. In order to solve this issue, the article presents specially selected means and methods of training and discloses the conditions for their implementation during the swimming training of young men aged 12-14.

Keywords: methodology, swimming, swimming training, special exercises on land and water, speed-strength qualities, boys aged 12–14.

Introduction. At the present stage of development of sports in the Republic of Uzbekistan, namely swimming, there is an improvement in existing and development of new pedagogical systems in order to achieve the most possible sports results for swimmers.

The development of physical qualities is necessary in many sports and the foundation for their best development must be laid at an early age. Most young swimmers cannot achieve high results in swimming, not because they are hindered by poor movement technique, but primarily because their basic physical qualities are not sufficiently developed - endurance, strength, speed [1, 2].

Many scientists (N. Bulgakova, V. Lopukhin, T. Menshutkina, V. Platonov) were engaged in the study of swimming as a sport, the study of its health-improving orientation, applied significance, mass character and the influence of the aquatic environment on the human body.

Analysis of scientific developments in the field of theory and methodology of sports training indicates the presence of various methods, means and methodological techniques for improving the swimming fitness of athletes [3, 4].

The study of the issues of improving the swimming technique is devoted to a large number of studies by both domestic and foreign authors [5, 6], but most of them were performed on highly qualified swimmers. The existing program for children's sports schools provides only a description of the methods for the formation and improvement of motor skills and several ways to correct mistakes in swimming technique. Numerical researches of scientists in sports-pedagogical and medical-biological fields allow today to search for the most effective methods of development of physical qualities, taking into account the gender and age characteristics of people [7].

School age is a more favorable period for the development of all motor properties [8]. But in certain age periods, the rates of natural progress of motor abilities are not the same. The response of the child's body to physical activity is different at different stages of growth and development. Physical activity gives a greater and longer-lasting effect in certain periods, which are called sensual or sensitive. During these periods, the favorability of the organism to selectively directed environmental influences increases [9, 10, 11].

The analysis of scientific and methodological literature and sports practice shows that the development of speed-strength qualities in middle school age creates favorable prerequisites for this [12, 13, 14]. At the age of 12-14, the development of the motor analyzer is completed, the activity of the central nervous system is improved. This age period accounts for the most intensive growth of indicators of functional and morphological development of the motor analyzer. Therefore, it is during these years that the foundations for future achievements in big-time sports can be successfully laid [15, 16].

As Kh. A. Menglikhulov notes, during training it is necessary to take into account that in adolescence, the excitability of the nervous system increases. The psyche of the child becomes less stable. Often they painfully endure a great stress of the nervous system, namely: long competitions, high stress of training, monotonous long exercises, etc. Therefore, in the training process, it is necessary to use a change in training means, a change in places of training, the use of a game method [17, 18].

It should also be noted that in the process of training, the coach must be especially careful with the dosage of loading due to the high emotionality of adolescents and their overestimation of their strength.

In recent years, various simulators have been increasingly used in the training of young athletes to increase their sports and strength potential. The results of the study show that the use of simulators both in training adults and young swimmers is most effective in the course of local action on specific muscle groups. But experts in the field of swimming note that exercises on simulators on land have a significant impact on the change in the structure of the stroke [19, 20]. However, swimmers are working on increasing their speed-strength capabilities not only in the gym, but also in the water. In the process of training, to develop the strength and speed of the stroke, shoulder blades are used, which are fixed on the hands. This increases the support surface of the hand and water resistance, resulting in a powerful stroke, and the muscles of the hands receive an additional load.

Brake belts or special suits with pockets create additional resistance to the swimmer, overcoming which; he improves his strength and speed fitness. According to some experts in the field of swimming (I. Gonchar, V. Platonov), an effective means of increasing power capabilities is the widespread use of leashed swimming at zero speed. The fin floats, stretching the elastic cord, which is fixed on the side of the pool and on the athlete's belt.

Based on the result of the analysis of literary sources on the research problem, we selected and scientifically substantiated the latest means and methods of swimming training in order to increase the level of development of the speed-strength abilities of swimmers of middle school age and improve their sports results. In order to increase the speed-strength abilities of children aged 12-14, we suggest using a set of exercises performed both on land and in water.

The main form of special training for swimmers on land is training using exercises with a barbell, a rubber cord, throwing medicine ball forward, imitation exercises with weights, and crossfit. Barbell exercises are used to develop the strength of the muscles of the shoulder girdle. A weight of 60-70% of the maximum is applied and the maximum number of times is performed.

Work with rubber cord. It is proposed to perform an imitation stroke with a crawl on the chest (butterfly, breaststroke). Hand movements are performed in a certain sports way of swimming in series (3 times in 5 minutes, or 5 times in 3 minutes, or 10 times in 2 minutes). The rest interval between repetitions is 30-60 seconds. It is necessary to make a series of movements for speed. Training of all three of these types is also performed for the legs, only in this case, instead of the shoulder blades, straps for the feet are attached to the cables of the simulator.

CrossFit. In the process of training on land, we offer CrossFit. This is a set of exercises performed in a circular system. The set of exercises consists of 6-7 exercises performed in a circle, after which the circle is repeated. Exercises cover all muscle groups. Each exercise is performed 1 time (10-15 repetitions - 30 seconds break). Then move on to another exercise.

Swimming with a rubber cord. Swimming with stretching of the rubber cord creates, first of all, additional resistance in the water and contributes to the rapid growth of strength qualities. And also, swimming with rubber, the athlete quickly enough (rather than with the help of other means and techniques) finds the correct coordination of movements, increases the unity (interaction) of the movements of the arms and legs, which generally leads to a rapid and tangible increase in swimming speed (especially on segments of 50, 75 and 100 meters).

Swimming with paddles. In recent years, swimming with paddles has been widely used in the training of the strongest swimmers. The meaning of the use of shoulder blades is that they provide increased support on the water, and therefore create conditions for more effective manifestation and development of strength qualities.

It is believed that when swimming with shoulder blades, two main tasks are solved: a) improving the stroke technique, achieving the most effective position and movements of the palm in the water; b) development of special strength and power of rowing movements. Swimming with paddles is included in the training program at all stages of training.

Swimming with brakes. To create increased resistance in the water, we recommend using "brakes" - a special belt with 5 sections-cups, in which there is a hole at the bottom and additional clothing (T-shirt, apron with large pockets, etc.). For the development of strength endurance, it is necessary to include in the training the swimming of long stretches (200–800 meters) at a uniform pace with a low resistance force (with a small "brake").

Thus, in the methodology for improving the speed-strength abilities of swimmers, namely, children aged 12–14, we recommend using several directions. One of them is reduced to the performance of specially preparatory exercises on land, the other - to the performance of specially preparatory exercises in the water.

Conclusion. Thus, well-chosen means and methods for increasing the level of development of the speed-strength abilities of swimmers aged 12-14 contribute to improving the sports result and improving the sportsmanship of swimmers. The proposed method allows comprehensively influencing the individual components of the speed-strength qualities of athletes, as well as helping to increase the level of reserve capabilities of children aged 12–14 who go in for swimming. Therefore, we can assume that the use of special exercises on land and in water in the process of swimming training, aimed at improving the development of speed-strength qualities, will improve sports results.

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