

Methodical Features of Physical Training of Young Boxers

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Abstract: This article examines the methodological features of young boxer's physical training.

Keywords: Physical exercises, methods, teaching methods, physical fitness, boxers.

Introduction:

Physical training of an athlete is the most important of all types of training, especially in boxing. Thus, the authors, based on a survey of boxing coaches, note that most coaches put physical training in first place in terms of the importance of development in the training process. However, improving physical fitness is extremely difficult in methodological terms, since different qualities are poorly related to each other, they depend, first of all, on the functional capabilities of the motor zone of the central nervous system, and require the use of various methods and methodological techniques for their improvement. In addition, when developing physical qualities, it is important to take into account sensitive age periods. Thus, in the period from 13-14 years, according to many authors, the greatest increase in physical abilities is possible, due to the great lability of the neuromuscular apparatus and the central nervous system [1].

METHODS

Theoretical analysis and generalization of scientific and methodological literature, testing, pedagogical experiment.

In boxing, it is important to develop four basic physical qualities: speed, strength, endurance and agility. When assessing the manifestations of speed, the following are distinguished: latent time of motor reaction, speed of a single movement, frequency of movements. Speed of motor reaction is assessed by latent time. The time of visual-motor reaction in boxers ranges from 0.10–0.25 s. The authors note the

presence of three types of simple reactions, depending on what the boxer's attention is focused on [2].

The first type (sensory) - when a boxer focuses his attention on the appearance of a signal (for example, an attack with some kind of blow), he tensely awaits it, mobilizing all his attention (while the motor centers of his cerebral cortex are in a inhibited state). In this case, the athlete is excessively constrained, his movements are sluggish, and are late in response to the signal. Most often this happens in cases when a boxer, fearing, awaits a strong blow from an opponent. In boxers, the latent period of the sensory type of reactions is on average 0.16-0.22 sec.

The second type of reaction is motor. In this case, the boxer concentrates all his attention on preparing the beginning of the movement. In this case, the motor centers of the cerebral cortex are excited and are in the starting state. The excitation reaches the motor area of the cerebral cortex, and there they meet the already prepared neural formulas of the response movement, and the corresponding motor impulses instantly rush to the organs of movement. As a result, this executive signal of the opponent's action is reduced to a simple "starting signal", to which a ready-made response is triggered.

The peculiarities of developing the speed of a complex reaction can be considered using two types as an example: reaction to a moving object (RMO) and reaction of choice. The reaction to a moving object is of great importance in boxing, since the target

(opponent) is constantly moving, changes distance and position, performs body movements, strikes, defenses. This type of reaction is developed in exercises with a partner, as well as on such boxing equipment that receive large oscillatory movements (pneumatic bags, balls on stretchers, punt balls, etc.).

The reaction of choice is associated with the selection of the necessary motor response from possible situations, in accordance with the change in the partner's behavior. For example, the opponent can attack with any blow, and the boxer chooses, depending on this, the necessary defense or counter blow [2].

The anticipatory reaction is based on the athlete's ability to predict the opponent's actions probabilistically. For example, at close and medium distances, it takes less time to deliver a blow than to perform a defense. Therefore, the attention of a young boxer should be directed to the perception of not the action itself, but the movements that prepare it.

Speed in boxing is demonstrated when performing single strikes in attack and counterattack, performing defenses, series of strikes, connecting strikes and defenses, preparatory and complex actions, movements and shifts, switching from one action to another.

Power skills are developed in boxing through gripping the opponent in close combat, releasing grips, placing hands under the opponent's strong blows, tensing the abdominal muscles when striking the body, pressuring the opponent, etc.

In developing the ability to demonstrate great strength in conditions of rapid movements, the method of repeated-progressive exercise is widely used. In this case, maximum strength tension is created by moving some non-maximum weight at the highest speed. Thus, the strength qualities of boxers are closely related to speed and endurance. Strength qualities depend on the activity of the central nervous system, the cross-section of muscle fibers, their elasticity, and the biochemical processes occurring in the muscles. A significant role in the manifestation of muscle strength belongs to volitional efforts [2].

Weight training is convenient because it is universal: it can be used to work both the smallest and the largest muscle groups, and it is easy to dose these exercises. One of the most important problems in developing strength abilities is choosing the right amount of weight resistance, optimal pace of exercise, speed [3].

Maximum strength tension can be created in various

ways: by overcoming non-maximum weights with the maximum number of repetitions, by maximizing the increase in external resistance, by overcoming resistance at maximum speed.

The first direction is the use of non-maximum weights with the maximum number of repetitions, the work is performed "to failure". Work "to failure" is not beneficial in terms of energy, in addition, it is necessary to perform more mechanical work than with increased weights in order to obtain the same training effect. It is important that at first the effectiveness of strength training is almost independent of the magnitude of resistance, since soon this value exceeds a certain minimum (40% of the maximum) [1].

As the duration of training increases, the advantage of maximum weights becomes more and more apparent. In boxer training, non-maximum weights are used. For example, the resistance value is set within the limits of "large" and "moderately large".

The second direction is the use of maximum and near-maximum weights. The maximum training weight is the largest weight that can be lifted without significant emotional arousal [3].

One of the criteria for a boxer's endurance is the time during which the athlete is able to maintain a given intensity of activity. Using this criterion, endurance is measured directly and indirectly. In the direct method, the athlete is asked to fight at a high pace for all five rounds. To maintain a high intensity of the fight, the partners box for one round [3].

During a fight, a boxer experiences high emotional stress, he has to solve tactical problems, all the time recording the opponent's movements. During a fight, at least 2/3 of the muscles work actively, which causes a large expenditure of energy and places high demands on the respiratory and circulatory organs. The state and possibility of developing endurance can be predicted by such indicators as: minute respiratory volume, maximum pulmonary ventilation, vital capacity of the lungs, minute and stroke volume of the heart, heart rate, blood flow velocity, hemoglobin content in the blood [2].

The basis of endurance in boxers is good general physical training, excellent breathing, the ability to relax muscles between active striking "explosive" actions and the improvement of technical techniques, since the more they are automated, the fewer muscle groups are involved in performing the movement [4].

Several factors influence the process of boxer fatigue: intensity actions, the frequency of their repetition, the duration of actions, the nature of the intervals

between them, the style and manner of the enemy's combat, the effect of disturbing factors, including the blows received.

In boxing, agility is manifested in the speed of transformation (reorganization) of movements in accordance with the requirements of the changed conditions of the fight. As the sports specialization deepens, the leading method of developing coordination abilities in a boxer is the introduction of the factor of unusualness in the performance of habitual actions in order to ensure increasing requirements for the coordination of movements. Coordination tension is gradually overcome with the help of the following special relaxation exercises:

- exercises in which muscles move from a tense state to a relaxed one;
- exercises in which relaxation of some muscles is combined with tension of others;
- exercises that require maintaining the inertial movement of a relaxed part of the body through the movement of other parts;
- exercises during which the athlete is asked to determine the moments of rest themselves, and during this time relax the muscles as much as possible.

CONCLUSION

When performing exercises, muscle tension should be combined with inhalation and holding the breath,

and relaxation - with active inhalation. In order for the movement to be free and not tense, it is recommended to sing, smile, close your eyes for a moment, watch your facial expressions (tension is clearly expressed in facial expressions). When performing movements, you need to tense the muscles of the whole body (with holding the breath), then relax sharply (with forced exhalation) and start moving. It is useful to perform the exercise in a state of fatigue, since fatigue forces you to concentrate your efforts only at the necessary moments. The manifestation of dexterity is also determined by the boxer's ability to maintain balance [3].

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