

## **ON THE ISSUE OF POWER TRAINING OF YOUNG POWERLIFTERS AT THE STAGE OF INITIAL TRAINING**

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**Introduction.** One of the problems of training athletes in powerlifting is teaching the technique of competitive exercises [2, 4, 5, 9]. According to a number of authors, the individualization of the technique of competitive exercises causes special difficulties for coaches, while the anatomical and physiological characteristics of powerlifters are poorly taken into account [2, 7, 8, 12]. This problem arises due to the peculiarities of pedagogical activity of coaches from the so-called different "powerlifting schools". After all, it is known that there are an extremely large number of aspects of training an athlete by different methods that differ from each other. At the same time, not all methods of training are correct, and especially with regard to the training of young men powerlifters [1, 3, 6, 10, 11]. And due to the progressive development of this sport in recent years, a large number of coaches choose the wrong methodological approach to athletes. All this hinders the progress of powerlifters. There is a contradiction between the need to individualize the technique of performing competitive exercises of the so-called "lifters" at the stage of basic training and its insufficient development in theory and practice.

Based on the above, the **relevance of our research** is to develop and test the methodology of development of power abilities in boys-powerlifters of 13–17 years old at the stage of initial training (IT).

The **purpose of the research**: to increase the level of development of power abilities and to improve the technique of performance of competitive exercises in boys-powerlifters of 13–17 years old.

Objectives of the **research**: to reveal the features of the technique of performance of competitive exercises in powerlifting; to analyze the existing methods of teaching the technique of competitive exercises; to reveal the main technical mistakes in the performance of competitive exercises in boys-powerlifters of 13–17 years old.

**Material and methods of the research.** We used the following **methods of scientific researches**: analysis of literary sources; questioning; pedagogical supervision; methods of mathematical statistics.

The research was conducted on the basis of the Regional children's and youth sports school of summer sports in the powerlifting department and the SC "Olimp" (Ternopil) from September 2023 to March 2024. In order to study the peculiarities of the construction of the educational and training process of young powerlifters we conducted a survey. The survey involved 25 respondents, including 22 athletes and 3 coaches. The age of the respondents ranged from 13 to 43 years.

The pedagogical observation was conducted at the Open Bench Press and Classic Bench Press Championships of Ternopil and the Open Powerlifting and Bench Press Championships of Ternopil Region among all age groups (October – December 2023). It was attended by 10 athletes aged 13–17.

**Research results and discussion.** In the process of conducting the survey, we found that according to 51% of respondents, the optimal age for starting powerlifting is 16–17 years old, according to 37% of respondents, the optimal age is 15–16 years old. And according to 12% of respondents, the optimal age is 11–14 years old.

Further, when conducting the survey, we found that at this stage of training it is necessary to train three times a week, according to 75% of respondents, 22% of respondents believe that at the stage of IT it is necessary to train 2 times a week. And according to 2%, it is enough to train once a week.

In our work, we found out from the respondents that 39% of respondents believe that more attention should be paid to technical training at the stage of IT. According to 54% of respondents, more attention should be paid to physical training, 4% of respondents say that more time should be devoted to psychological training. And according to 3% of respondents, more time should be devoted to tactical training at the stage of IT.

As a result of the survey, we found that 34% of respondents spend more time on back muscle groups, 32% of respondents claim that more attention should be paid to leg muscle groups. In the opinion of 5% of respondents,

more attention should be paid to arm muscle groups, 3% of respondents recommend spending more time on shoulder muscles, and 26% of respondents recommend developing chest muscle groups more during the IT stage.

Finding out from the respondents the frequency of strength training of athletes at the IT stage, we obtained the following results. 34% of respondents recommend strength training once a week. According to 52% of respondents at the stage of initial training, it is necessary to conduct strength training 2 times a week. 14% of respondents recommend doing strength training 3 times a week.

In order to identify typical mistakes when performing competitive exercises in powerlifting, we conducted a pedagogical observation, which took place at the Open Championship of Ternopil in bench press and classic bench press and the Open Championship of Ternopil region in powerlifting and bench press among all age groups (October – December 2023). 10 athletes aged 13–17 took part in it.

During the analysis of the scientific and methodical literature, we discovered the main characteristic mistakes made by athletes when performing each competitive exercise. *Characteristic motor errors of the competitive exercise "squat"*: 1. "rounding" of the back in the phase of raising and lowering in the "dead center"; descent is carried out too quickly and not controlled; 2. "rebound" in the lower position. In the lower phase, the knees collapse forward. When lifting, the athlete moves the pelvis back, the so-called "back collapse" occurs; 3. imperfect positioning of the foot, which prevents a fixed movement. *Characteristic movement errors of the competitive exercise "bench press"*: 1. rapid and uncontrolled lowering of the bar; 2. transferring the main load to the shoulder joints; 3. raising the pelvis when overcoming the "dead spot". *Characteristic motor errors of the competition exercise "deadlift"*: 1. a large gap between the barbell and the body during the entire lift; 2. "concave" back; 3. insufficient work of the leg muscles, that is, too little movement of the pelvis in the phase of the so-called "sit down"; 4. "dead" point at knee level.

As a result of the pedagogical observation, we found that athletes make the most technical errors when performing the "deadlift" – 48 technical errors; in "Squatting" – 30 mistakes; and in "Bench Press" – 27. In "Squat" every athlete makes 3 mistakes on average; in "Press" – 2,7 errors; and 4,8 mistakes were made in "Deeplift". It is these mistakes that largely prevent athletes from achieving results that correspond to their potential.

Further, during pedagogical observation, we identified the maximum weight that the athletes lifted at the competitions we studied. In "Squat" the number of kilograms lifted was 107,67 kg; in "Bench Press" – 76 kg; and in the "Deadlift" – 110,5 kg.

**Conclusions.** After conducting a survey, we found that the optimal age for starting powerlifting classes, according to the majority of respondents, is

16–17 years old. At the stage of initial training, it is necessary to train 3 times a week and more attention should be paid to technical (37% of respondents) and physical training (54% of respondents).

During the analysis of scientific and methodical literature and pedagogical observation, we discovered the main characteristic errors in the performance of each competitive exercise, which athletes make and the average number of errors per athlete.

**Prospects for further research.** On the basis of the above, in the future it is planned to develop a set of exercises aimed at adjusting the technique of performing competitive exercises and experimentally verify its effectiveness.

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