https://doi.org/10.35219/efms.2023.1.17

PHYSICAL TRAINING PLANNING FOR WEIGHTLIFTERS BEGINNERS IN A WEEKLY TRAINING MICROCYCLE

Mihail COZIMA

State University of Physical Education and Sport, Chisinau, Republic of Moldova

Abstract: Weightlifting training requires a high level of physical preparation, and this concept became essential at all activity cycles. As the results of participation in competition are increasingly in demand, optimal work output can only be achieved in the presence of superior indices of special physical preparation. Physical training planning throughout the training period is particularly important, but especially at the initial stage. Thus, the forms of planning the physical preparation of beginner weightlifters in a weekly training microcycle are based on significant concepts and theoretical-practical approaches essential for the effective preparation of weightlifters at this stage. The planning of the physical preparation of beginner weightlifters in a weekly training microcycle is designated by the complexity of the development of the functional and motor capacities of an athlete and is carried out within a well systematized and organized training process, this process being represented by a set of theories, concepts, notions, methods, principles and legalities. Therefore, the process of planning the motor activity of weightlifting athletes at the early stage is represented by certain scenarios of training lessons, being developed depending on the main objectives of forming a strong functional base and requires permanent increase of efforts in order to achieve high sports results. The planning of physical training in a weekly training microcycle is reflected in: the number of training sessions per day (morning and afternoon training); the number of training sessions per week (total of 11 training sessions: for Monday, Tuesday, Wednesday, Thursday and Friday two training sessions (morning and afternoon) and for Saturday only the morning session. The total number of hours is represented by the 60 min ceiling for one hour of training (one astronomical hour) where the morning training constitutes 1.5 hours and the afternoon training constitutes 2.5 astronomical hours. In the structural architecture of the planning of the training process a significant role is played by the experimental didactic project of the training lesson. The didactic project contains in a detailed form the whole scheme of the programme of actions that are planned to be learned. This planning unit is also notable for the fact that the respective compartments also describe the method of action which influences the execution of the planned movements.

In their content, the didactic projects of the training lessons preserve the essence of the instructional approach in order to form the motor skills and the set of previously acquired skills, mastered at the

moment, and with a future perspective, giving the didactic project a system status, on the basis of which the multiannual training process is built.

Key Words: Planning, Physical Training, Beginner Weightlifters, Weekly Microcycle, Training.

INTRODUCTION

Topicality of the approached problem.

The current trends of modern sport are moving more and more insistently towards the most rational use of the exact forms of programming, planning, directing and analysis of the exercise activity at all stages of training.

In the training process for beginner weightlifters, the planning of the workload is required to be carried out in accordance with the conditions of scientific management of the training activity which makes it necessary to establish a close relationship between multilateral training of young athletes and their biological characteristics.

In order to increase the quality of physical and mental effort, which acts directly on the full bio-psycho-motor potential of young athletes, the planning elements are particularly important, starting with the shortest training periods, such as weekly microcycles and continuing with the more voluminous periods.

These components, constituting a complex sphere in the organization and planning of the work activity can contribute to the more efficient achievement of all training objectives, where the systematic approach of motor training is visible, thus contributing to the integral development of the child's personality and training. multilateral [8], [15], [21].

Coming with some clarifications in order to plan the physical training of beginner weightlifters, it should be mentioned that at the initiation stage the emphasis should be on the development of the motor skills complex, where young athletes must fully acquire the ability to perform as many skills as possible (running, jumping, balancing, climbing, climbing, lifting, etc.) at higher correctness indices.

Thus, everything starts from a good planning of physical training in a weekly training cycle, where a wide range of exercises is provided, and where the elements related to the density, intensity and complexity of motor actions are followed with great accuracy.

Certainly, the development of the complex of motor qualities, including those of speed, dexterity, strength and endurance is one of the most important conditions in the physical preparation of children for dumbbell sports. In this regard, it is necessary to express the point of view according to which it is necessary for the training program to contain several exercises related to the development of specific motor skills, also promoting the use of methodology, also specific, to achieve this goal.

In order to clarify the purpose of this study, arguments are made on the essentialization of the planning system of the training activity with orientation on the physical training of the young weightlifters, namely for the period of a weekly microcycle.

Thus, planning is the way to organize the sports training process from a methodical and scientific point of view. Dragnea A., Teodorescu S. [9], gives the following definition: "planning is the activity of detailed and precise elaboration of training and performance objectives, as well as of the means, methods and forms of organization appropriate to the proposed purposes".

After [4], "the essence of planning consists in arguing, processing and documenting the content and sequence of actions of the teacher (teacher - coach) to solve the tasks of training and education."

Planning is the most important tool the coach has at his disposal for leading a wellorganized training program; planning eliminates risk, goalless approach and provides guidance, sets a direction and gives a precise purpose to the activity undertaken. Last but not least, planning is the art of using science to structure a training program.

The planning process must be seen as a way of manipulating sports training in accordance with the specifics of each branch of sport, in order to achieve the highest performance.

L. P. Matveev [16], has a special merit in systematizing planning, who considers that training planning is of three types.

- macrostructure or structure of large cycles (macrocycle), such as annual ones;
- mesostructure or medium-length structure (mesocycle) composed of several microcycles;
- microstructure or system of 3 13 lessons (microcycle) usually carried out during a week.

Namely the content of the microcycles (weekly cycles) and of the ordinary training lessons concretize the whole organizational and instructional approach of the preparation process.

The training microcycle is a system of training and recovery lessons that is a structural unit of a mesocycle of a certain type. The content and structure of microcycles are determined by several factors and are classified into several types [1], [4], [5], [18]:

1. Training microcycles which are customized according to the tasks characteristic of the period in general training microcycle and specific training microcycle.

2. The accommodation or "approach" microcycles are built according to the condition of preparation for competitions.

3. The competition microcycles are designed according to the characteristics of the competitions that will take place within them. These microcycles must ensure optimal availability of the body to achieve the performance planned in the competition.

4. The recovery microcycles usually follow, after the very important competitions in which the athlete was intensely demanded after the high intensity microcycles. These microcycles are also called "unloading", because the level of effort is very low.

The weekly training microcycle imposes certain methodological work approaches characteristic of this small period and includes a safe interconnection between the two important dimensions: physical training exercises and technique training exercises (certainly, in the training activity during a week will be used and other forms of training) The central **goal** of this study is to develop a physical training model based on optimal planning elements that are intended to be effective in training novice weightlifting athletes.

In this context, the **objectives** of the study include:

1. Theoretical-scientific assessments of the planning forms of the training process regarding the training of weightlifting athletes based on the study of the specialized literature.

Arguing the forms of planning the content of microcycles (weekly cycles) and ordinary training lessons for the physical training of novice weightlifting athletes.
 Elaboration of the physical training complexes planned for the development during a weekly microcycle in the training of the weightlifting athletes at the incipient stage.

4. Streamlining the mechanism of physical development by correctly mastering the segmental chain of movements associated with the regulated technique of performing weight lifting actions.

METHODOLOGY

Taking into account that the technique exercises: snatch technique, snatch without lunges, direct snatch, place on chest without lunges, place on chest technique, push without lunges, technical push, technical push from support, push without lunges from support, throw push and others depend on the degree of physical training (i.e. strength exercises: snatch pulls, throw pulls, bending, back squats, chest squats, barbell squats with bar on the arms, half squats with the bar on the back or chest, push lying down, push sitting from neck and others) in the training sheets (weekly cycle) exercises of the same structural group are planned, and these can also be replaced with exercises, only if they are part of the same group in order to fully achieve the formation of specific deadly skills . As an example, it is not cost-effective to do direct snatch exercises without taking into account the physical training exercises that are part of the same structure group of motion biomechanics.

It is recognized that planning with high accuracy and caution requires coaches to have superior professional training and outstanding practical experience to contribute to the proper preparation of the training program.

The planning within a weekly training microcycle includes the introduction at certain time intervals of well-specified performance indices, which ensure the possibility of systematic and thorough acquisition of the content elements by the athlete and, with them, avoid forcing the body. It takes into account the bio-psycho-motor potential of athletes and their level of development, which also requires a systematic record.

At the same time, the weekly training plan may include a detailed elaboration of the training and execution actions, and the selection of the means used to be in accordance

with the degree of demands of the execution technique, this being on the one hand, and on the other hand, to maintain the degree. to achieve the volume and intensity of efforts for good work productivity throughout the training lesson.

In essence, the operational plan (of a weekly microcycle) results from: the number of training days, the number of trainings, the training intensity, the detailed training structure by duration and intensities [3], [8], [9].

Also, the structure of a weekly microcycle provides for a number of factors, which in the scenario of a regular training includes: setting goals, especially for the main factors of training; establishing the training requirements (number of lessons, volume, intensity, etc.); setting the intensity level, the intensity peaks and alternating them with the least intense ones; determining the nature of the training, the type of methods and means used for each muscle group and the body's functions, including recovery elements.

In essence, the microcycle (weekly cycle) is the basic and most important functional tool of planning, because its structure and content determine the quality of the training process.

In the same vein, when developing a weekly training scenario, the following requirements should be highlighted: learning and improving the technique in medium intensity conditions; perfecting the technique in conditions of submaximal and maximum intensity; developing short-term speed; development of aerobic speed; strength development through the use of 90 - 100% loads; development of muscle strength in conditions of high and maximum intensity; development of cardio-respiratory resistance in conditions of moderate intensity.

In weightlifting, the planned performance of physical training during all periods of training ensures the formation of a wide range of motor skills that facilitate the strict work of specialization. Particular emphasis is placed on the physical training of the weightlifter, especially during the first training period. Tasks during this period include: progressive entry into the effort and the gradual and rapid adaptation of the athletes' body to the demands of basic training;

improving physical training, a large share being given to special physical training;

perfecting the basic technique, the specific technique and the individual tactics related to the technique execution of the classic weight lifting procedures.

From these tasks it results that the largest share in this period has the general physical training, specific and the basic technique training.

The proper development of the body from a functional point of view, respectively the adaptation to effort, is achieved through general and multilateral physical training exercises with an emphasis on endurance. The physical training will aim to improve motor skills in their general form of manifestation as well as the processing of muscle groups and chains involved in more difficult technique performances to be learned or improved. Under these conditions, the ratio between the parameters of the effort is characterized by a large volume, the intensity and complexity being also high. A good general physical training provides the optimal support for the improvement of the specific physical training and for a good evolution of the subsequent training.

For dumbbell sports, specific physical training [1], [3], [5], [6], [10] is the process of educating specific physical skills for lifting weights. This activity is carried out in conditions as close as possible to the competition conditions and is carried out in a close interdependence with the acquisition of technique-tactical skills. Specific physical training cannot replace general physical training, the two aspects of physical training being closely related, they are interconditioned. The specific physical training takes place starting with the second sub-stage of preparation, with a duration of about a few weeks.

At this stage the following tasks appear [3], [6], [8], [11], [14]: improving the physical training in which the weight of the specific one gradually increases; improving the technique by means with more complex structures and closer to the competition conditions; improving the basic means, the main mechanisms of operation of the body's systems adapted to the lifting conditions of the dumbbell, as well as consolidating the deficient links in the content of the different lifting phases.

It also becomes necessary to emphasize the essence of the optimal forms of planning the physical training of beginner weightlifters in a weekly training microcycle, because these training lesson scenarios are the basis for scheduling the training activity, on which

the other stages and cycles depend: monthly, quarterly, half-yearly, annual, biannual, Olympic cycles, etc.

With regard to the physical training of beginner weightlifters, it should be mentioned that this form is the safest way to capitalize on the skills of athletes in order to obtain the most relevant results. It is carried out within a well-systematized and organized training process, and in essence a set of theories, concepts, notions, knowledge, principles, methods, legalities and rules that [4], [13], [19].

Physical training is a process that ensures a multilateral development of the body aimed at strengthening it, which contributes to the formation of a lasting functional base and requires a continuous increase of efforts in order to achieve high sports results [2], [7], [12].

In order to **plan the physical training of beginner weightlifters in a weekly training cycle**, a workload of maximum intensity is proposed, which alternates with also maximum and submaximal efforts, with short interruption periods, with increased intensity and duration, where, the qualities The basic requirements are: its strength and derivatives, its resistance as well as its derivatives.

Physical training encompasses an entire system, a set of measures that ensures the body's high functional capacity; this is due to the high level of development of basic and specific physical qualities, to which are added high values of morphofunctional indices. From what has been said, it results that the **physical training** is an ensemble of great complexity that also has a certain methodology of realization. Thus, for beginners in weightlifting, physical training has a very large share in the saving of time and means used, especially if it is related to technique training, but physical training is a starting point and especially a foundation for addressing the other components of training. It has different weights from one stage to another and even a differentiated character.

In weightlifting, physical training includes a whole system of measures, which ensures a high functional capacity of the body, through the high level of development of basic and specific motor qualities, optimal values of morphofunctional indices, full mastery of applied exercises and perfect health [3], [11], [20].

Following the optimal way of planning for the period of a weekly training microcycle with the character of physical training of beginner weightlifters, when developing the exercise complexes, the sequence of exercise actions was taken into account, as follows: ensuring the proper development of the functional fund achieved through exercises with an emphasis on strength-resistance; compliance with the principle of progressive loading; development of force in resistance regime; achieving the volume of effort in intensity regime; development of resistance in regime of intensity and complexity; integration of combined motor skills.

RESULTS

(Model program for planning the special physical training of beginner weightlifters in a weekly training microcycle: exercises associated with the requirements of the technique of lifting weights in classical procedures)

A. Exercises for "snatching" technique:

a. 1. Snatch without lunges - (6 rounds X 3 repetitions with a weight of 30 - 40 % of body weight).

a. 2. Snatch without lunges from boxes - (6 rounds X 3 repetitions with a weight of 40 - 50 % of body weight).

a. 3. Snatch without lunges and hang snatch - (6 rounds X 3 repetitions with a weight of 50 - 60 % of body weight).

a. 4. Direct Snatch - (6 rounds X 3 repetitions with a weight of 40 - 50 % of body weight).

a. 5. Fall under the bar - (6 rounds X 3 repetitions with a weight of 40 - 50 % of body weight).

a.6. Control test - (will be performed as needed, aiming to determine the workloads differently for each athlete in the next weekly cycle).

1. A. Special exercises for technical "snatching":

1. a. Deadlift snatch - (6 rounds X 5 rounds with 40 - 50% of body weight).

2. a. Snatch pull - (6 rounds X 5 rounds with 40 - 50% of body weight).

3. a. Bending snatch - (6 rounds X 5 rounds with 40 - 50% of body weight).

4. a. Squats with the bar on arms -(6 rounds X 4 rounds with 40 - 50% of body weight).

B. Throw technique: exercises for "place on chest":

b. 1. Deadlift throw -(6 rounds X 4 rounds with 40 - 50% of body weight).

b. 2. Place on chest direct -(6 rounds X 4 rounds with 40 - 50% of body weight).

b. 3. Place on chest without lunges from boxes -(6 rounds X 4 rounds with 40 - 50% of body weight).

b. 4. Place on chest without lunges and bend snatch - (6 rounds X 3 rounds with 40 - 50% of body weight).

b. 5. Place on chest without lunges - (6 rounds X 3 rounds with 40 - 50% of body weight).

b. 6. Control test - (will be performed as needed, aiming to determine the workloads differently for each athlete in the next weekly cycle).

1. B. Exercises for "place on chest" technique:

1.b. Lift Throw - (6 rounds X 5 rounds with 40 - 50% of body weight).

2.b. Bend Throw - (6 rounds X 5 rounds with 40 - 50% of body weight).

3.b. Deadlift throw - (6 rounds X 5 rounds with 40 - 50% of body weight).

4.b. Control test - (will be performed as needed, aiming to determine the workloads differently for each athlete in the next weekly cycle).

C. Throw technique from supports:

c. 1 Throw push from supports - (6 rounds X 5 rounds with 40 - 50% of body weight).

c. 2. Throw without lunges from supports - (6 rounds X 5 rounds with 40 - 50% of body weight).

c. 3. Throw technique from supports - (6 rounds X 5 rounds with 40 - 50% of body weight).

c. 4. Helpful exercises for technical throwing from supports - (6 rounds X 5 rounds with 40 - 50% of body weight)

D. Strength exercises:

d. 1. Squats with the bar on back (neck) - (6 rounds X 5 rounds with 40 - 50% of body weight).

d. 2. Squats with the bar on chest (on the collarbone) - (6 rounds X 5 rounds with 40 - 50% of body weight).

d. 3. Sit Push - (6 rounds X 5 rounds with 40 - 50% of body weight).

d. 4. Laid down Push - (6 rounds X 5 rounds with 40 - 50% of body weight).

d. 5. Control test - (will be performed as needed, aiming to determine the

workloads differently for each athlete in the next weekly cycle).

Distribution of exercises in a weekly training cycle

Mod								
#	Exercises		Μ	Т	W	Т	F	S
1	Deadlift throw	(b. 1.)	Х		Х		Х	
2	Snatch direct	(a. 4.)	Х		Х		Х	
3	Place on chest direct	(b. 2.)		Х		Х		Х
4	Throw push from supports	(c. 1.)		Х		Х		Х
5	Squats with the bar in arms	(4. a.)	Х		Х			Х
6	Squats with the bar on back	(d. 1.)	Х		Х			Х
7	Squats with the bar on chest	(d. 2.)		Х		Х		Х
8	Sit Push	(d. 3.)		Х		Х		Х

Distribution of exercises in a weekly training cycle Model 2.

#	Exercises		Μ	Т	W	Т	F	S
1.	Deadlift snatch	(1. a.)	Х		Х		Х	
2.	Snatch without lunges	(a. 1.)	Х		Х		Х	
3.	Throw without lunges from supports	(c. 2.)		Х		Х		Х
4.	Place on chest without lunges from boxes	(b. 3.)		Х		Х		Х
5.	Place on chest without lunges	(b. 5.)	Х		Х			Х
6.	Snatch without lunges din atârnare	(a. 3.)		Х		Х		Х
7.	Squats with the bar on back	(d. 1.)	Х		Х		Х	
8.	Squats with the bar on chest	(d. 2.)		Х		Х		Х
9.	Sit Push	(d. 3.)	Х	Х	Х	Х	Х	Х

Distribution of exercises in a weekly training cycle Model 3

#	Exercises		Μ	Т	W	Т	F	S
1.	Deadlift throw	(b. 1.)	Х		Х		Х	
2.	Deadlift snatch	(1. A.)		Х		Х		Х
3.	Snatch without lunges from boxes	(a. 2.)		Х		Х		Х
4.	Throw without lunges from supports	(c. 2.)		Х		Х		Х
5.	Place on chest without lunges bent	(b. 4.)	Х		Х			Х
6.	Fall under the bar	(a. 5.)		Х		Х		Х
7.	Throw push from supports	(c. 1.)	Х		Х		Х	
8.	Squats with the bar on back	(d. 1.)		Х		Х		Х
9.	Squats with the bar on chest	(d. 2.)	Х		Х		Х	
10.	Sit Push	(d. 3.)	Х	Х	Х	Х	Х	Х
11.	Laid down Push	(d. 4.)	Х	Х	Х	Х	Х	Х

Distribution of exercises in a weekly training cycle

Mod	el 4.							
#	Exercises		Μ	Т	W	Т	F	S
1.	Deadlift throw	(b. 1.)	Х	Х	Х	Х	Х	Х
2.	Snatch without lunges	(a. 1.)	Х		Х		Х	
3.	Throw without lunges from supports	(c. 2.)		Х		Х		Х
4.	Place on chest without lunges	(b. 5.)		Х		Х		Х
5.	Pull snatch	(2. a.)	Х		Х			Х
6.	Pull throw	(1. b.)		Х		Х		Х
7.	Squats with the bar on back	(d. 1.)	Х		Х		Х	
8.	Squats with the bar on chest	(d. 2.)		Х		Х		Х
9.	Bend throw	(2. b.)	Х		Х		X	
10.	Sit Push	(d. 3.)	Х	Х	Х	Х	Х	Х
11.	Laid down Push	(d. 4.)	Х	Х	Х	Х	Х	Х

#	Exercises		Μ	Т	W	Т	F	S
1.	Snatch technique	(A)	Х		Х		Х	
2.	Throw technique from supports	(c. 3.)	Х					
3.	Place on chest technique			Х				
4.	Throw without lunges supports	(c. 2.)		Х	Х			Х
5.	Throw without lunges					Х		
6.	Throw technique	(B)					Х	
7.	Snatch without lunges	(a. 1.)		Х		Х		Х
8.	Place on chest without lunges	(b. 5.)	Х		Х			Х
9.	Throw pull	(1. b.)	Х		Х		Х	
10.	Snatch pull	(2. a.)		Х		Х		Х
11.	Back squats	(d. 1.)	Х		Х		Х	
12.	Chest squats	(d. 2.)		Х		Х		Х

Distribution of exercises in a weekly training cycle Model 5

These models can be used depending on the basic objectives set for the period of a weekly microcycle and can be alternated according to other forms of training as needed. The elaboration and realization of such planning requires a strict concordance with other preparation periods and with the general structure of the stage plan. At the same time, the setting of training objectives in a weekly microcycle must be mobilizing and follow the results of athletes with great caution.

Such planning becomes effective because it consists of quantitative and qualitative indicators and represents the quantification of training over a period of time. Quantitative indicators are expressed in tons, kilograms, months, days, number of rounds and repetitions, and qualitative indicators in percentages, effort regimes, the correct technique of performing the exercises.

In the context of the above, some **conclusions** can be drawn:

- promotion of technique performance in weight lifting can be achieved only on the basis of higher indices of special physical training;

- planning of the physical training of the beginner weightlifters in a weekly training microcycle is represented by certain scenarios of the lessons, being elaborated depending on the main objectives of forming a lasting functional base of the athlete;

- the forms of planning model result from the correlation - the maximum association of the physical training exercises with the technique of the classic weight lifting procedures for the competition conditions, thus the athlete being trained - prepared directly on the technique needs.

This planning approach requires a careful selection of means of practice in the training lessons of the weekly cycle, elements that underlie the composition of the stages, cycles, subsequent periods of this process.

REFERENCES

- 1. Achim Şt. Training planning. Bucharest: National Coaching School, 2005: p. 26 31.
- 2. Alexe, N.(coord.) Modern sports training. Bucharest: Editis Publishing House, 1993, p. 67-83.
- 3. Baroga, L. Weightlifting and bodybuilding manual: Bucharest, Sport-Tourism Publishing House 1993, p. 17-23.
- 4. Baroga L. At what age can start practicing dumbbells and strength training in various sports: Newsletter F. R. Weightlifting and Bodybuilding no. 29 - Bucharest 1984, p. 47;
- Baroga L. and Hâtru D. Dumbbells, Bucharest National Council for Physical Education and Sports Publishing House 1968 p. 36 – 51, 52 – 69, 80 – 87, 95 – 103
- 6. Bompa T. O. Carrera M. Periodization of sports training, Tana Bucharest 2006, p. 35 107
- Chirazi, M. Culturism. Specialization course: Iași, University Publishing House "Al. I. Cuza", 2004, 185 P.
- 8. Dimofte C. Comparative study on the specific and tehnical initial training of weightlifying. Ștefan cel Mare University of Suceava: 2015, p. 16 24.
- 9. Dragnea A., Mate Teodorescu S. FEST sports theory Bucharest, 2002, p.281–610
- 10. Epuran M. Modeling sports behavior: Bucharest, Sports Tourism, 1990, p. 87-199.
- Romanian Weightlifting Federation, Criteria, tests and control norms for weightlifting selection. National Council for Physical Education and Sports. Research Center for Physical Education and Sports Bucharest 1986, p. 23 – 36.
- 12. Hâtru D. Haltere Preparing children and juniors: Bucharest, Sport -Tourism Publishing House, 1985, p. 18-27
- *13. Hohmann H. Development of muscle strength in long-term performance training: Bucharest, INCPS, 2002, p. 39 58.*
- 14. Manno R., Theoretical bases of sports training: Bucharest, Revue EPS Publishing House 1992 Performance sports, 1996, p. 371 – 374.
- *15. [15] Martiabov S. S., Popov I.I., Roman R.A. Peculiarities of the chest dumbbell lifting technique: Bucharest, SDP Nr. 279 1988, p. 58 – 64.*
- [16] Matveev L. P., Novicov A. D. Theory and methodology of physical education: Bucharest, Sport Turism 1980, p. 511 – 600.
- 17. Nicu A. The theory and methodology of modern sports training: Bucharest, "Romania of tomorrow" Publishing House, 2002, p. 52 231.
- 18. Platonov V. N. Sport theory: Kiev, Zdorivia, 1987, p.21 90.

- 19. Roman R.A., Rîşim E.E. Peculiarities of training weightlifters with different degrees of qualification.
 In: Bucharest, SDP. 1988, nr. 273, p. 70 77.
- 20. Teodorescu S. Periodization and planning in performance sports: Buzău, Alpha MDN, 2009, p. 107 - 118.
- 21. Triboi V., Păcuraru A. Theory and methodology of sports training: Iași, Pim Publishing House, 2013, 298 P.