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STUDY ON THE RATIONALISATION OF METHODS AND MEANS OF TRAINING IN JUNIOR FREESTYLE WRESTLING IN SPORTS CLUBS

Gherasim Valerică[1]
Vizitiu Elena[2]
High School with Sports Program Suceava[1]
Stefan cel Mare University of Suceava[2]
gherasimvalerica17@gmail.com[1]
elenav@usm.ro[2]

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Abstract: Freestyle Wrestling is an acyclic sport, based on a mixed aerobic and anaerobic effort, characterized by intensity, variety and rapid changes of situations. With the change in rules and the dynamisation of wrestling, tactical, low-intensity efforts have disappeared, and the athlete is forced to fight at a sustained pace to avoid disqualification. This is what is known as 'total combat'. Training and competitions act multilaterally on the fighter's body, during the specific effort all muscle groups, joints, analysers, the fighter's entire personality are involved, all with the material support of a remarkable increase in the functions of all the body's apparatus and systems. We can therefore say that Greco-Roman wrestling is one of the most complex sports, in which, in addition to general and specific endurance, several other qualities are required, such as strength, reaction speed and exceptional skill. The aim of the research is to elaborate and argue the content of the planning of the training process in junior wrestlers (16-17 years old) specific to each period of the annual training cycle, considering the interaction of different aspects. Analyzing the dynamics of different parameters of the level of physical and technical-tactical training of 16-17 years old wrestlers, we found a large difference between the analyzed parameters. Indices of general physical readiness increased considerably during the training period and then stabilized at an optimal level.

Introduction: Athlete training, as a systematic process of optimally applying the totality of means, methods and conditions to effectively influence the body and ensure the necessary level of preparation for sport performance, includes three major subsystems: sport training; competitions as a means of preparation; training and competitive factors. Author Grosu B., believes that in sport it is necessary to train athletes, and that "the main psychomotor components to be taken into account in the training process are the following: body schema, laterality and ambidexterity, spatial orientation, tempo and rhythm, external (visual, auditory, olfactory) and internal (kinaesthetic) perception, visual differentiation, visual

memory (reproduction of gestures, images), auditory differentiation (sounds, different frequencies), auditory memory (reproduction of sounds associated with movement), attention and concentration, balance, ability to combine (coupling) movements - specific coordination dynamics."[4], and for a good performance in the training process is increasingly needed and "information technologies with the help of which you can develop various planning programs, selection of methods and means of sports training"[1]. In this respect, the author considers that "information transmission technologies have undergone explosive development, especially in the last two decades, leading to the expansion and consolidation of a global communication system"[8]. According to specialists, the concept of periodisation of sports training has a specific application depending on the specific branch of sport and the qualification of the athletes. At the same time, it is possible to distinguish both the general duration of the macro-cycle of training and the correlation of the duration of its periods. Applying the structure of the calendar year and the competition year as the basic macro-cycle makes it possible to increase the volume of effort to a large extent and to ensure effective adaptive changes in the athletes' bodies. [3,5,6,7,10]. Trends in the dynamics of training and competitive effort indices differ across the stages and periods of the annual cycle, depending on their specificity of achievement in different sports. For example, the specific effort intensity in strength and speed sports increases much faster in the training period of the annual cycle than in other predominantly endurance sports. The volume of competitive effort in sports games is subject to a lower dynamic in the stages of the annual training cycle compared to other sports. The total volume of training activity and its relation to the types of training differ according to the specificity, complexity and variety of skills and abilities required. Sports which are complex in terms of coordination require greater tactical and technical training, while sports with simpler tactics and greater physical training require greater development of the athletes' physical qualities. In cyclical sports, too, it is particularly important to select the ratio of training efforts rationally in order to develop the specific physical qualities which ensure the desired effect of the athletes' competitive activity. Thus, the general principles of the concept of periodisation of sports training are concretely manifested in any type of sports activity, corresponding to the given specificity. Therefore, it is useless to comment on the principles mentioned with the conditions of the specifics of implementation, based only on the peculiarities of sports genres. Even more so, the reasoned scientific structuring of the training process must necessarily be carried out because of the concept of periodisation, taking into account the specific features of the sport branch and the concrete conditions of the training process [2,3,5,6,7,10].

Material-method: The research was planned and carried out in four stages. In the first, theoretical stage, based on the analysis and generalization of the

literature data, as well as the study of the acts of planning the training of fighters and the generalization of personal experience, the main aspects of the studied problem were highlighted and systematized, the principles about the theoretical importance of the work were concretized and considerably completed, the topicality of the research topic was confirmed, then the aim and objectives of the research were concretized. At the second stage of the research, discussions were held with coaches, during and as a result of which the priorities and shortcomings of the existing program of structuring the annual training cycle of junior wrestlers were highlighted and concretized. This helped to determine the most effective ways of eliminating these shortcomings and to draw up a new programme for structuring the training process for fighters during the annual training cycle. The third stage of the research, which included the verification of the indices of the level of physical and technical-tactical training of the fighters, was directed to obtain initial results to determine the dynamics of these indices, according to the requirements of the training period. This was the basic information for determining the correlation dynamics of the tested indices, which, in turn, allowed the selection of the most reliable indices and the concretization of the numerical characteristics for the development of the experimental program. At the fourth stage the efficiency of the experimental planning and the structure of the annual cycle of training of junior fighters was verified. For this purpose, the athletes in the experimental group trained according to the strict distribution of means, methods and training regimes in accordance with the planning developed by us. During the experiment the athletes were tested several times and after five more significant tests, this procedure allowed to compare the value of the test results of the control and experimental group athletes at the beginning, intermediate and final stages of the experiment and then to compare the dynamics of the general and specific physical training indices of the wrestlers. Another aspect of acceptance of the experimental program was based on the analysis of the wrestlers' competitive activity, calculating the indices of technical-tactical mastery during the annual training cycle. In addition to the directly indicated sports results (places, number and quality of victories), the range of attack, the safety of attack, the safety of defence and the scoring of technical actions were considered. The application of the developed curriculum and the structuring of the training process during the year, carried out in the pedagogical experiment, confirmed the effectiveness of the curriculum and demonstrated the validity of the working hypothesis. The research ended with the application in practice of the results obtained in accordance with the practical recommendations. The aim of the research is to develop and substantiate the content of the planning of the training process in junior wrestlers (16-17 years old) specific to each period of the annual training cycle, considering the interaction of different aspects (components; effort factors. Hypothesis of the work: it was

assumed that determining the optimal ratio of components, effort factors and means of sports training for each training period of an annual training cycle will determine an optimal planning for each stage of the cycle and thus will lead to the improvement of the process of development of motor skills, increase of technical-tactical mastery and competitive performance of junior wrestlers. The application of the experimental planning for the organization of the structure of the annual training cycle of fighters, whose main characteristics were presented in the previous paragraph of the paper, was carried out in several directions: based on the determination of the dynamics of the indices of the level of physical preparation of athletes, the determination of the changes in the parameters of tactical-technical mastery and the dynamics of the sports results of fighters within the training year. In order to respect the objectivity, at the beginning of the experiment two groups of young fighters identical in age, level of training and number of athletes (12 persons each) were established. During the annual training cycle, the control group trained according to the generally accepted program in combat practice, and the fighters in the experimental group trained according to the planning developed by us. One of the main ways of demonstrating the high efficiency of the experimental programming of optimal structuring of the training process of junior fighters is to compare the dynamics of the indices of the level of physical readiness of fighters in order to determine the differences of these indices under the influence of training actions. The certain selection of these tests was argued during the research, as a result their full reliability and significance was established. The systematic effect of the influence of training in experimental methodology was ensured by the following means and methods: selection of specialized means, which have an increased training potential and are capable of mobilizing in the body the major functions; organization of optimal interaction of specific training effort with non-specific efforts; ensuring the effect of development of all training parameters on the basis of planned introduction into training of means with increased effectiveness; establishment of an optimal duration of application of means of similar directionality of training for creation of adaptation effect; the content of the means of physical training should be in line with the specific nature of the work regime in the conditions of competitive activity; optimal concentration of the means of training for intensifying the body's work regime in the programmed stage of the annual cycle; advanced specificity of the means of physical training with regard to the solution of the objectives of improving technical-tactical mastery.

Results and Discussions: The testing of the level of training of the wrestlers in both groups was carried out during the pedagogical experiment four times with an interval of 1.5 months: at the beginning of the training period, at the end of this period, in the first half of the competition period and at the main competition stage.The results of the first test at the beginning of the training year

did not establish essential differences in the indices of the level of training of the wrestlers in both groups, which confirmed the identity of their composition at the initial stage of the experiment (Fig.1).

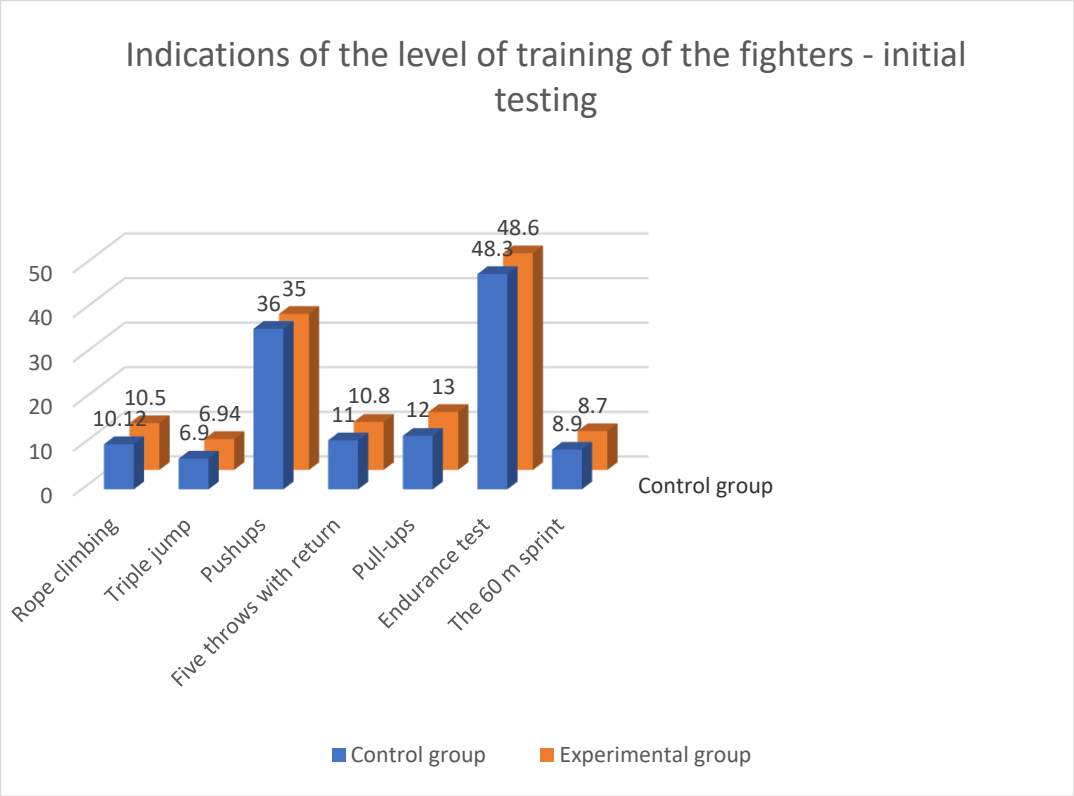

Fig. 1

According to the data in Fig. 1, we observe that the index values of the wrestlers in the control and experimental groups are almost identical in the initial stage of the experiment, with a slight superiority of the athletes in the experimental group. However, considering that this superiority is far from being genuine, we can see that there was in fact no superiority of either group according to the indices of the level of training at the initial stage of the experiment. This situation changed considerably at the next stage of testing, carried out in the second half of the training period, when the main volume of general and specific effort was already performed by the fighters in the experimental group. The results of the testing of athletes from both groups in the mentioned stage of the experiment are shown in Fig. 2.

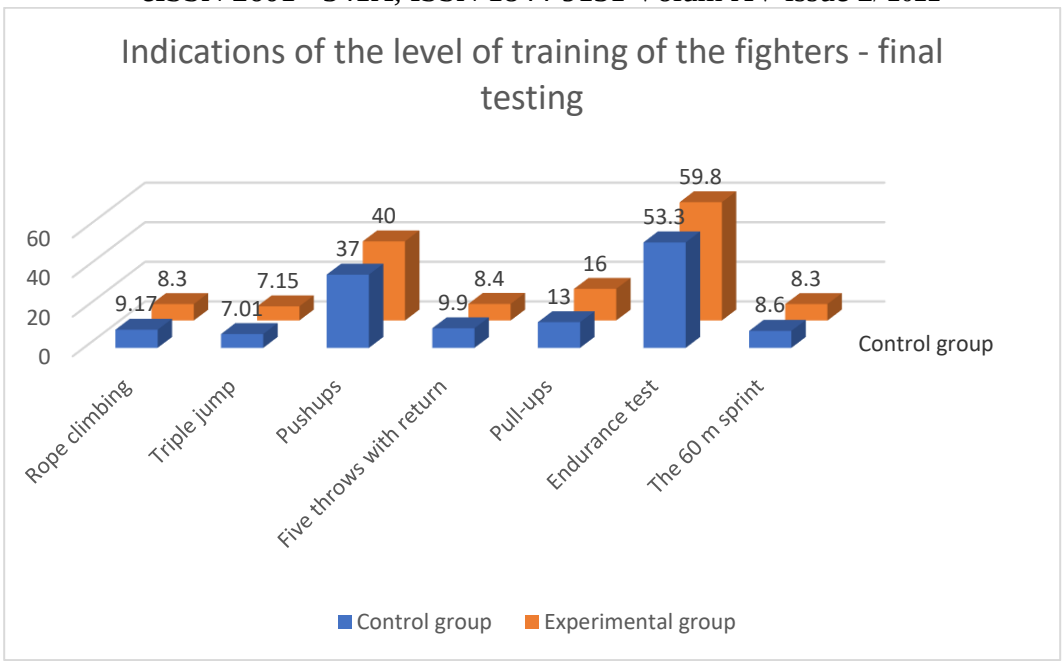

Fig. 2

Further analysis of the content in Fig. 2 shows that the amount of increase in the tested indices of the fitness level of the fighters in both groups increased, especially the PFG indices. At the same time, the superiority of the athletes in the experimental group was maintained and even slightly increased. Thus, in the test "Climbing on the 4 m rope" this superiority constituted 0.87 s, in the results of the test "Triple jump from the spot" - 14 cm, in the number of push-ups. More obvious and genuine was the superiority of the fighters in the experimental group in the indices of the specialized tests. For example, in the test "Execution of five throws with a turn" this difference constituted 1.5 s, after the results of the endurance test - 5.6 s, after the number of procedures in the special six-minute test - 6.5 procedures. These data confirmed the finding expressed above about the effectiveness of experimental planning for structuring the training process of fighters in comparison with traditional plans of the annual training cycle related to the optimal development of indices of the general and specific physical readiness level of athletes. The dynamics and character of the variation of these indices can be followed more precisely by analysing each individual index. This dynamics of the "Climbing the 4 m rope" time index of the wrestlers in both groups, during the whole pedagogical experiment, within the annual training cycle, is shown in Fig.1. Therefore, the analyzed indices had at the initial test approximately, identical values (10,12±0,62 s - in wrestlers of the control group; 10,05±0,60 s - in athletes of the experimental group). However, already at the next test these indices differed,

constituting in wrestlers of the control group 9,80±0,59 s, and in athletes of the experimental group - 9,06±0,40 s. This tendency of superiority of the athletes in the experimental group increased in the third test, where the indices analysed constituted in the wrestlers of the control group 9.18±0.50 s, much lower than in the athletes of the experimental group, where these indices constituted 8.32±0.35 s. In the final test of the experiment the indices of the "Climbing the 4 m rope" time practically did not change and remained at the value level of the results of the third test stage.

Conclusions: At present there is a clear contradiction between the high demands on the fighters' training and competitive activity and the incomplete method of training them in the annual cycle. The existing methodical recommendations are in many respects outdated, requiring considerable additions and concretisation. The analysis of the literature and the opinions of highly qualified coaches has shown that the training process of wrestlers is in most cases structured in a template and without the application of current training means and methods. This substantially reduces the effect of sports training and makes it imperative to develop scientifically substantiated innovations in the system of structuring and carrying out the training process of fighters during the annual cycle. Analyzing the dynamics of different parameters of the level of physical and technical-tactical training of 16-17 years old fighters, we found a large difference in the analyzed parameters. The PFG indices increased considerably during the preparatory period and then stabilized at an optimal level. The parameters of the specific physical training level and the technical-tactical indices continued to increase, reaching the most significant values in the competitive period based on the optimal level of the PFG indices. The differences in the diamics of these parameters require a selective and concentrated influence on the level of general physical training during the preparatory period and on the level of specific physical training and technical-tactical training in the later stages of the annual training cycle. The methodical basis of experimental training planning for 16-17 year old fighters is based on the following principles: structuring the training year in terms of the concept of a programme-objective as a whole, divided into parts, with the main periods of the training year being divided into absolutely conventional units, without indicating their duration; division of the training period into three stages with compulsory and successive separation of general and specific physical training tasks; the application of technical-tactical orientation tasks from the second half of the preparatory period and the almost definitive exclusion of specific competitive training during this period; the permanent increase in the volume of competitive training at the basic competition stage ensures a concentrated organisation of the training process; the periodic succession of intensive and extensive training methods in order to amplify the training action by increasing the volume and

intensity of the specialised training effort. Approval of experimental planning of fighter training has demonstrated its high effectiveness in physical training of athletes. The increase in the value of the indices of the level of physical readiness, of the athletes in the final stage of the pedagogical experiment proved to be genuinely higher in the wrestlers of the experimental group in comparison with the value of the results of the athletes of the control group. The high effectiveness of the experimental planning is also confirmed by the sports performances recorded by the experimental group. Compared to the control group athletes, the experimental group wrestlers have more winners and prize winners in national and international competitions. Thus, the results of the application defined in a genuine and multilateral way the high effectiveness of experimental planning for structuring the training process of junior wrestlers by optimizing the ratio of various aspects of training at the stages of the annual training cycle, and the author considers that "structuring a training plan for performance athletes should be based on a scientifically well-supported methodology to achieve the expected sports results. [9]

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