

GENERAL CHARACTERIZATION AND PRINCIPLES OF THE PHYSICAL PREPARATION IN AEROBICS GROUPS OF HIGHER SPORTSMANSHIP

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Abstract. The provisions of this article cover the basic principles of the training of high level athletes in sports aerobics. The greatest attention is paid to the General definitions and the ratio of the volume of educational material, which is primarily aimed at improving the technical and physical training of athletes, organizing the complex process of preparation of sportsmen. Defines the objectives, methods and means of training. The main principles underlying the preparation of athletes in groups of HSR. Specific content structure of preparation of sportsmen of high level s high level athletes in sports aerobics in comparison with related sports.

Аннотация. В данной статье описываются основные принципы подготовки спортсменов высокого класса в спортивной аэробике. Наибольшее внимание уделено общим соотношениям объема учебного материала, которые в первую очередь направлены на улучшение технической и физической подготовки спортсменов, организацию сложного процесса подготовки спортсменов. Определены цели, методы и средства обучения. Основные принципы, лежащие в основе подготовки спортсменов группы ВСМ. Конкретное содержание структуры подготовки спортсменов высокого класса и высокий уровень спортсменов в спортивной аэробике в сравнении с родственными видами спорта.

Introduction. It is common knowledge that the main contingent of high qualified sportsmen in such sports as aesthetic gymnastics, aerobic gymnastics and dance sport is renewed at the expense of people's inflow from kindred sports with complex coordination. Such approach to training professional sportsmen against the background of increasing competition both in our country and in the world cannot ensure high level achievements in long-term outlook. In consideration of current trends to complicate the competition programs at the expense of technically complicated combinations that require comprehensive training of sportsmen, there is a necessity of development of evidence-based system of training athletes from childhood [5, 6].

A lot of kindred with aerobic gymnastics sports with complex coordination (such as competitive gymnastics, calisthenics, sport acrobatics, trampolining, figure skating, dance sport etc.) have a methodological basis that ensures success in training and competition [1, 4, 7].

Criteria of estimation and a lot of aspects of physical, technical, compositional and other kinds of training are very similar in sport aerobics and kindred sports. That is why the training of sportsmen can be based on regularities and principles that are used in these kinds of sports [2].

At the same time, aerobic gymnastics is an independent choreographic area of development of modern systems of gymnastics that has its own specificity in competition and refereeing. So this factor is needed to be taking into account at the all stages of training [6].

There are a lot of researchers that note the necessity of systematic and long-term training in chosen discipline that is based on strict continuity of training [3, 8, 9].

Therefore, from these sources of methodological literature concern problems of research it becomes obviously, that in spite of many likenesses of methodical and methodological basis and categories in aerobic gymnastics and kindred sports, there are poorly developed and specified program theses which concern exactly sport aerobics as an independent sport discipline. As a result, the matter of the research is to determine content and methods of training, especially those sportsmen that achieve higher sportsmanship in aerobic gymnastics.

Materials and methods. The main purpose of conducted experimental research is to create government program of aerobic gymnastics for working at schools of higher sportsmanship, higher schools, specialized youth schools of Olympic reserve and youth sport schools.

There are following tasks that were set to research:

1. To formulate the purpose, principles, methods and means of training high sportsmanship athletes in aerobic gymnastics
2. To present brief description of structure and content of training groups of higher sportsmanship in aerobic gymnastics.

Results and discussion. To solve the problem we used such methods of testing as analysis of methodological literature; pedagogic observation of training process of the best sportsmen of Ukraine including training during holding training session for World championship 2014; questionnaire design and interviews with trainers and sportsmen; analysis of documents about planning of training Ukrainian national aerobics team; expert evaluation (in this case – discussion and analysis of performances of Ukrainian national team); method of video-registration of performances and trainings; methods of mathematical statistics.

There is no doubt that the main purpose of training in sport aerobics is to achieve the highest possible level of competitive activity and above all at the international level (World and European Championships, World Cup, World Games etc.). At the same time the competitions of each level should be considered as the main stages of preparation for the chief starts, solving specific tasks. After analyzing the program material from kindred sports, we came to the

conclusion that these tasks stimulate several key areas of sports training in aerobic gymnastics.

Technical training of higher sportsmanship groups should be directed to the mastery of exercises and their perfect execution according to the classification of the elements and the minimum of requirements to give them a certain "value" for the final evaluation of the difficulty of the exercise.

Physical training creates the basis for technical training, provides the development of functionality of an athlete and also affects the evaluation of the difficulty of the exercises because of directly reflection at the execution of power elements of classification.

Psychological training should provide the ability of athletes to manage their functional state under the influence of confounding factors, internal or external origin. Speaking about competition activity in sport aerobics, first of all, we have in mind the impact of viewing public on the mental state of athletes.

Tactical training is based on the knowledge and skills of an athlete to foresee, evaluate, and make the right decision regarding to the strong and weak positions (both its own and competitors') in a competitive activity.

Integral training may be called the acquisition of the ability to combine mentioned above types of training, which is the final opportunity to win the competition.

The analysis of documents of planning preparation of the national team of Ukraine in sport aerobics, questionnaire of leading trainers of the federations, interviews with coaches and athletes helped to identify major groups of training means at the stage of higher sportsmanship. The main means of training are such groups of exercises as:

- General developmental - exercises for comprehensive motion and functional training;
- Specially preparatory, which include exercises that are the system of competitive activity, and also the closely related in structure and nature of display of qualities (elements, combinations and parts of the competition exercises);
- Auxiliary - exercises due to which builds the foundation for consistent improvement of sportsmanship;
- Competitive - in fact competitive composition.

The basic methods and principles of sports training fully coincide with the training methods outlined by many famous scientists [1, 2, 4, 7 - 9] and substantially carefully disclosed for traditional sports with complex coordination. However, we consider that it is reasonable to formulate in detail methodical principles of training for sport aerobics. Among them, we highlight the following:

- the principle of advance - leading development of physical qualities relative to technical training, early mastering of complex elements, creation of long-term programs;

- the principle of all-rounder - forming of high technology skills in exercises;
- the principle of measuring - optimal and balanced development of physical qualities;
- the principle of combining – search of means to solve several problems at once, for example, to combine technical and physical training;
- the principle of redundancy - the use of training loads that exceed competitive loads, including in competitive combinations more of complex elements that is need to be;
- the principle of centralization - preparation of promising athletes at centralized training sessions involving the best experts to work with them;
- the principle of professionalism - maintenance of such level of training that will allow athletes to satisfactorily do competitive program at any time during the annual cycle;
- the principle of independence - purposeful work in preparation of the reserve of national team;
- principle of scientific content - the introduction of new effective means and methods of special training and teaching.

In terms of preparation of the Ukrainian national team for the World Cup 2014, we were able to track the contents of the various types of training athletes that have higher sportsmanship. According to the recommendations of previous studies of L. Arkaev [2], we have analyzed the most informative parameters of the training load. They are:

- total number of completed elements;
- the number of holistic compositions;
- training time; the number of elements of the special physical training;
- the number of elements in a technical complexity;
- the intensity of training load;
- the percentage of successfully completed compositions in individual and group (team) types.

The main parameters of the training load of members of the Ukrainian national team in sport aerobics vary within the following ranges: 286-290 training days a year (including days of competition); 20-30 days of centralized training (2 - 3 training sessions a year for 7-10 days); 360-380 training per year (900-950 hours of training per year); 5500-9500 thousands of elements per month; 30-90 compositions per month (360 - 1080 elements of technical complexity, where 30% are the elements of special physical training per month).

There are some parameters that vary in the broadest range such as the number of completed compositions, elements of special physical training, the volume and intensity of training load, their dynamics. These indicators reach a maximum value 1-1.5 months before major competitions, and then they decrease slightly. As a rule, the share of the SFA significantly decreases (reaching 10-

12%) during the period of athletes' participations in major competitions. At all other stages it changes and it is 25-35% of the total load.

Typical microcycles last 7 days and include two waves of load growth. The first wave lasts three days (Monday - Wednesday). On the fourth day (Thursday), the load is reduced by 50-60%. In the fifth and sixth days (Friday - Saturday), it increases again to a maximum or a submaximal level (second wave). On the seventh day (Sunday) there is an activity rest. On Monday - Wednesday and Friday - Saturday there are 2 (3 in the case of training session) trainings a day, on Thursday - 1 (2). In this case, the one training is the main. It has the greatest length (2.5-3 hours), and high intensity (5-6 elements per minute, up to 10 compositions per hour). There are mainly practicing individual elements, improving their technique and developing physical qualities in additional trainings. The length of such training is from 45 minutes to 2 hours. The intensity of the additional training is very high when the "circular" training method is applied (up to 25 items per minute). In all, a typical microcycle contains 6 training days, 17 training sessions and 33 - 36 hours of training time.

Conclusion. 1. The main purpose of training in sport aerobics is to achieve the highest possible level of competitive activity by methods that are well known in the kindred to sport aerobics traditional sports with complex coordination.

2. Preparation of the groups of higher sportsmanship is based on the principles of advance, measuring, combining, redundancy, centralization, professionalism, independence, scientific content and principle of all-rounder. For their implementation are used such means of technical, physical, psychological, tactical and integral training, that have distinctive characteristics from kindred sports.

3. As opposed to the content, the structure of training athletes of higher sportsmanship in sport aerobics does not differ from other sports. However, it is worth noting, that as compared to such kinds of sport where Ukraine has traditionally strong positions in the world as competitive and rhythmic gymnastics, there is lack of centralized preparation in sport aerobics. Partly this fact can be explained by the absence of government financing of not Olympic sports.

For the further improvement of the training process of the groups of higher sportsmanship in sport aerobics there is a research of the functional state of athletes at the different stages of training using modern methods of rapid diagnosis. This research is conducted in order to create training programs for the national team of Ukraine to the world level competitions.

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