

CONCEPTUAL MODEL FOR MANAGING LONG-TERM TRAINING OF QUALIFIED ATHLETES SPECIALIZING IN ATHLETIC JUMPS

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Annotation. *Purpose.* Develop the structure and content of improved conceptual model of long-term management training of qualified athletes. Model will be the basis for building training process based on accurate quantitative characteristics of all parties preparedness athletes. *Material.* Two groups of skilled athletes who were assigned to the fundamental differences in the ways to achieve competitive results and differences in the structure of the special physical and technical readiness (group: speed, power). *Results.* Found that the role and importance of individualization of training increases by stages and in-depth expertise - especially at the stage of maximum realization of individual empowerment. It was found that athletes training process efficiency is greatly enhanced when training loads focused on maximizing individual. *Conclusions.* Improved conceptual model of the system control long-term training athletes should be viewed as a collection of various structural elements subordinate to the main strategic objective decision - to achieve high results.

Keywords: management, concept, forecasting, planning, performance.

Introduction

Recent years Ukrainian sportswomen, who specialize in track and field jumps, can not win at international competitions. This fact stimulates specialists for searching of more effective management of sportswomen many years' training. The most important condition of improvement of training management's quality is promptness and accuracy of management's influence on the base of timely sport training's correction with the help of modern scientific methodic, perfection of conceptual management model of qualified sportswomen's many years training.

Up to date training process of qualified sportswomen, who specialize in track and field jumps, has complex structure of interconnected components, which are oriented on improvement of general and special fitness, sportsmanship, education of will qualities [1, 2-4, 7, 17]. The highest effectiveness of sport training is ensured by purposeful development of special physical qualities and improvement of sportswomen's motion functioning at different stages of training [5, 6, 8, 11, 16, 18, 20]. In order to control training process and compare the controlled values we developed model characteristics of sportswomen and determined main parameters of techniques and special physical qualities for certain stages of sport training [3, 6, 9-11, 13, 16, 21].

The existing system of training process's management is based on three main tasks [1, 2, 4, 7, 15, 25, 26]:

1. Determination of main parameters of special and technical sportswomen's fitness.
2. Achievement of middle level of model characteristics' indicators in training process.
3. Individual planning of sportswomen's training process, considering lagging behind links of special and technical fitness.

The present research was fulfilled as per topic 2.11 "Theoretical-methodic principles of training's management of sportswomen, who specialize in track and field jumps" of combined plan of scientific & research work in sphere of physical culture and sports for 2011-2015 of Ministry of education and science, youth and sports of Ukraine. State registration No. 0111U003839.

Purpose, tasks of the work, material and methods

The purpose of the work is to develop structure and content of conceptual model of many years training's management of qualified sportswomen, who specialize in track and field jumps, which would be a basis for construction of training process, considering precise quantitative characteristics of all sides of sportswomen's fitness.

Results of the research

The most important task of training's management is organization of managing actions' complex with final target to transfer sportswomen's functional state to higher level that effectively influence on special workability and technical sportsmanship of qualified sportswomen.

One of the most important conditions for solution of this task is increasing of management's promptness on the base of timely correction of training process. Optimization of training process in modern conditions can not be built only on the base of personal intuition and experience of a coach. Training is carried out more effectively when using principles of management, which include constant feedback and prompt correcting managing influences. Results of sportswomen's training and competition functioning shall be rendered to coach in the form of objective quantitative information about state of organism's functional state, about main parameters of physical and technical fitness. With it increasing of special physical and technical fitness is ensured by increment of power of organism's functional systems.

Analysis of scientific-methodic literature, analysis of document (diaries of self-control of different age sportsmen), pedagogic control research, methods of multi-dimensional statistical analysis witness that improvement of track and field jumps' training process (in particular high jumps and running long jumps) shall be

oriented on improvement of efficiency. Demand in increasing of training's efficiency is proved by changes of loads' character in annual cycle on different stages of many years training.

Increasing of training's efficiency can be reflected in the following methodic principles:

1. Selection of quick, dexterous girls for training of track and field jumps and specializing in them.
2. At the stage of initial specialization formation of efficient "quick" variant of high and long jumps' technique with correct time and rhythm-temp structure of movements.
3. Increasing of role of sprinter's training and rational using of running quickness in support-flight phases of jump.
4. Intensification of training process at the stages of deep specialization and maximal realization of individual abilities at the account of application of great quantity of means, which would be adequate to competition exercise (jump from long and middle running, sprinter running in the frames of 95-100% ,running jumps, exercises with weights in "explosive" mode).
5. Increasing of quickness and power of fulfillment of special power exercises with reducing of scope of general power exercises at the stages of maximal realization of individual abilities.
6. Maximal concentration of special training's means at certain stages of annual cycle (up to 25% per month from annual scope).
7. Improvement of special training with target to improve one kind of track and field jumps.
8. Individualization of qualified sportswomen's training, i.e. selection of special training means and individual variant of jump's technique.
9. Improvement of control exercises' quality with evaluation of special and technical sportswomen's fitness, which, by bio-mechanical parameters, are similar to general exercises and reflect the task of training stage.
10. Increasing of stage duration for maximal realization of individual abilities in order to achieve sport results of high level.

Our researches have shown that one of the main factors preventing from reaching high results by qualified sportswomen is absence of opportunity to fulfill significant scope of training loads. Great number of exercises is fulfilled with much less intensity of muscular efforts in comparison with competition exercises. The higher sportsmanship is the less effect of exercises, which are fulfilled in ordinary mode, is. Training exercises, which are habitual for a sportswoman, do not improve her special fitness.

Orientation on intensification of training was conditioned, first of all, by increasing of competition practice, restriction of time for training process and, in connection with it, minimization of training efforts and increasing of quickness and power of fulfillment of special training means. That is why, at the stage of deep specialization and maximal realization of individual abilities special means of training shall be maximally approached to general exercises and, if possible, simultaneously solve the tasks of sportsmen's technical and physical training.

Track and field jumps are speed-power exercises, while improvement of efficiency is, first of all, level of manifestation of quickness and power of these exercises' fulfillment. Alongside with it, it was determined that application of technical aid and simulators in training process of sportswomen, who specialize in track and field jumps, are either of spontaneous character or do not used at all.

The carried out research showed that role and significance of individual training is improved at the stage of deep specialization and, especially, at the stage of maximal realization of individual abilities, when sportswomen's adaptation abilities reach maximal level while training loads set maximal requirements to organism's functional systems. The higher if qualification of sportswomen the better are their individual techniques. It was found that effectiveness of qualified sportswomen's training significantly improves with application of training loads, which are oriented on maximal using of individual features. Building of technique of competition exercise's fulfillment, basing on individual strong sides of a sportswoman, with elimination of evident disproportions in her fitness's structure – is one of effective directions of qualified sportswomen's training.

Model characteristics were of great importance in improvement of structure and content of conceptual management model of sportswomen's many years training. Model characteristics of competition activity, of special physical and technical fitness permitted to individualize training process in practice. Comparing individual parameters and training functioning of sportswomen with model values we could choose the most rational ways of training's methods. If approximation of individual sportswomen's parameters to traditional models is the most rational way at the stages of initial specialization, then at the stages of deep specialization and maximal realization of individual abilities development of group models of fitness's different sides is more promising direction. Our researches show that sportswomen, who specialize in high and running long jumps, can be divided into groups by principle of likeness of fitness's structure. Creation of two groups, which were called "quick" and "power", connected with principal distinctions in directions of achievement of competition result and conditioned by group distinctions in structure of sportswomen's special physical and technical fitness.

Individual model characteristics of sportswomen, composed on the base of statistical processing of successful attempts' results, permit to large extent to consider characteristic features of qualified sportswomen's individual fitness. In practice, group indicators are not always informative for individual sportswomen, who are members of this group. Especially it is characteristic for qualified sportswomen, who reach results owing to high

level of certain fitness's sides with relatively moderate other indicators. That is why, in our opinion, researching of fitness's individual structure, determination, on this base, possibility of training and competition functioning effectiveness's improvement are a promising direction of sportswomen training's perfection.

The structure and content of improved conceptual management model of many years' training of sportswomen, who specialize in track and field jumps, is a basis of training process's construction, considering precise quantitative characteristics of all sides of a sportswoman's fitness. With it, in our opinion, it is purposeful to plan annual cycle of training as per the following schema "from above – downward": competition result – level of fitness's different sides – scope and intensity of training means – distribution of training means in annual cycle, meso-cycle, one training.

In this connection prognostication of sportswomen's efficiency is rather important. Recent years, principally new approach to this problem has been attracting attention to – development and implementation of computer programs, which permit to study, analyze and prognosticate training process at new, higher level. With it sport training is characterized by combination of parameters of special and technical fitness, which ensure achievement of planned sport results and are given in the form of objective quantitative characteristics. Such approach permits to more confidently prognosticate results and correct training process.

Thus, modern training process has rather complex structure of interconnected components, which are oriented on improvement of general and special fitness, sportsmanship, will qualities. The highest effect of sport improvement is ensured with purposeful development of special physical qualities and improvement of sportswoman's movements at different stages of training. In order to control training process and compare the values to be controlled there developed model characteristics of sportswomen and determined main parameters of technique and special physical qualities for certain stages of training.

In fig.1 we present improved conceptual model of training process's management at the stage of deep specialization and maximal realization of individual abilities in the base of which there were main tasks to be solved in certain sequence:

1. Testing of sportswomen's physical fitness.
2. Division of sportswomen into "quick", speed-power" or "power" group.
3. Prognostication of efficiency of every sportswoman for future years.
4. Determination of model parameters of special physical and technical fitness.
5. Prognostication of training process's effectiveness in annual cycle.
6. Development of methods of control over level of sportswomen's special and technical fitness with the help of computer technologies.
7. Stimulation of recreational processes.
8. Programmed technical training of sportswomen with the help of technical aids.
9. Correction of training process in the course of successive solution of prognostication tasks of training process's effectiveness.
10. Individual planning of training process of sportswomen, considering peculiarities of their special physical and technical fitness.

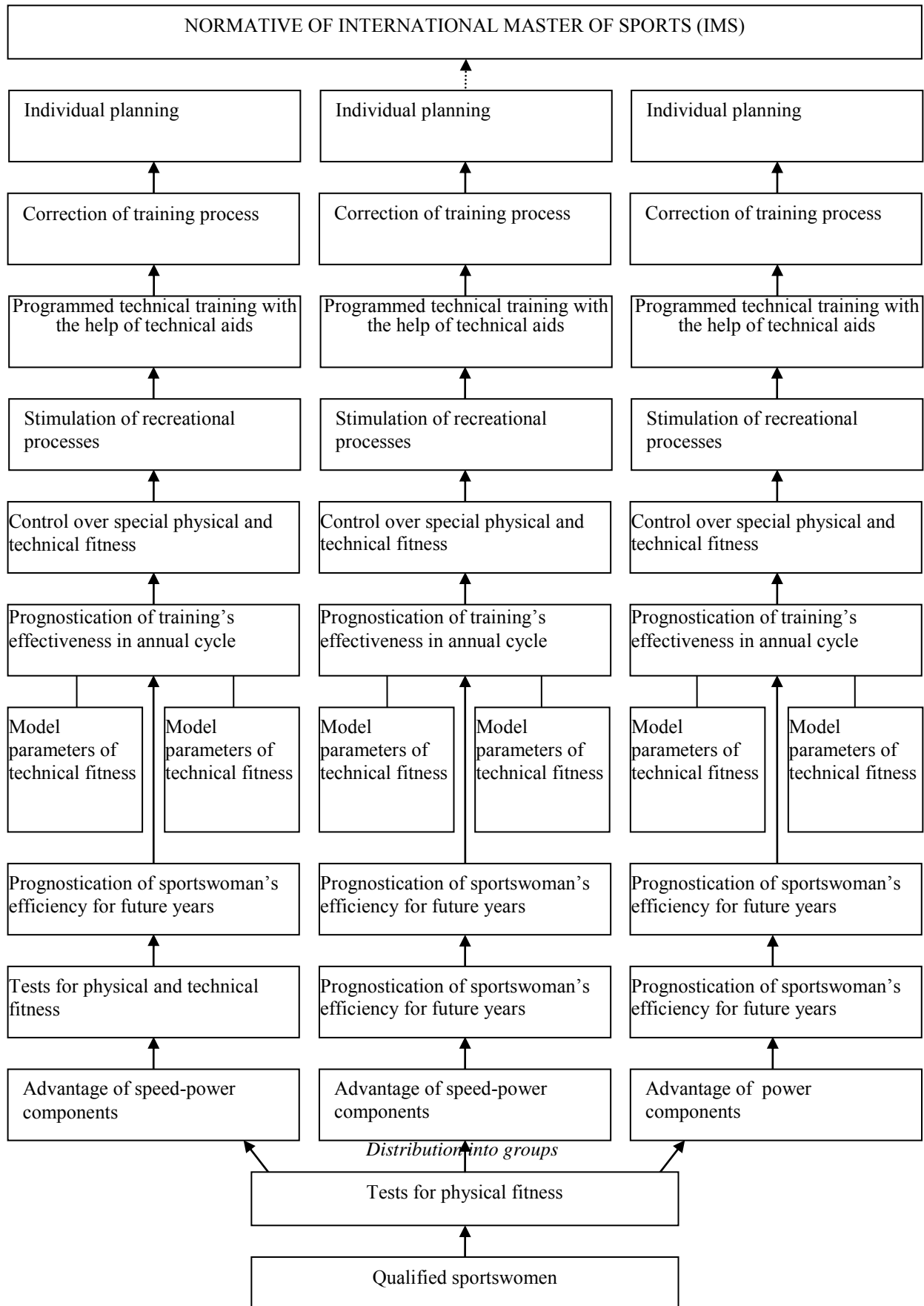


Fig.1. Improved conceptual management model of many years training process of sportswomen, specializing in track and field jumps

Conclusions:

Thus, results of our researches witness that improved conceptual management model of many years training process of sportswomen, specializing in track and field jumps shall be regarded as combination of different structural elements, oriented on solution of main strategic task – achievement of high sport result.

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