

## METHODOLOGICAL FOUNDATIONS OF THE MODERN TRAINING SYSTEM OF SKILLED HANDBALLERS

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**Annotation.** *Purpose:* to consider the direction of training handball team in the annual Ukrainian Superleague macrocycles game seasons in years 2006-2013. *Material:* in the experiment took part 125 participated highly qualified handballers. The analysis of more than 50 references on multi-year training athletes is conducted. *Results:* confirmed advisability of constructing the training process handball qualifications based on the structural components of the preparation. According to the requirements of the system approach presented technology of preparation are disclosed management methodology training process in terms of long-term training. *Conclusions:* it is necessary to compile and optimize long-term training program handball qualifications; raise the level of preparedness of the various parties in strict accordance with the objective laws of the formation of their constituents, and calendar events, to consider specific features of the occurrence of adaptive reactions in improving the various components of sportsmanship.

**Keywords:** macrocycle, methodology, training, process system.

### Introduction

With every year, with every Olympic cycle modern sport of higher achievements set to sportsmen still more hard requirements [5,7]. Successfulness of sportsmen's training in modern conditions depends on effectiveness of organization, management and control, on rational application of modern technologies in training process [4]. Increasing of scope and intensity of training load in different kinds of sports in last decade increased importance of optimization of training process's methodic [13,21]. Blistering development of sports, especially last decade, requires qualitatively new approach to organization of sportsmen's training. Important role in rational construction of training process is played by knowledge of general rules, principles of organization and realization of training of different qualification' sportsmen, regularities of organism's adaptation to physical loads as well as control and monitoring [9,15].

In methodological aspect any progressive development of system is connected with its complication, which is characterized by intensive structuring and increasing, by integration and differentiation of elements, by widening of range of targeted functions in process of achievement of required result [8]. All characteristics are intrinsic to handball and facilitate its progressing. Modern technology of training of highly qualified sportsmen is based on results of scientific researches and has scientific methodic foundation. Domestic scientists developed psychological pedagogic principles of sportsmen's functioning as well as main aspects of their training (technical, physical, psychological and theoretical) [1,7,11 et al.]. At the same time problems of integral training in natural combination of all its components as single pedagogic system with completely formed technological process of highly qualified sportsmen's training, have, in general, been still solving at intuitive-empiric level.

Comparative analysis of trends in world handball's development permits to mark out the following system formation ones:

- increasing of motivation and prestige character of higher sport achievements;
- sharpening of competitiveness in struggle for highest sport titles;
- rising of technical-tactic actions' level [18, 20].

Their interaction conditions appearance and development of the most expressive trends. Their combined action results in complicating of training and competition functioning with pushing out ordinary work by complicated at all links training of highly qualified handball players.

The carried out by us analysis of literature sources showed that most authors marks principle of individualization or combining of team and individual training, when determining main principles of training process's construction [5,7]. Mass of scientific knowledge has not been organized in holistic system, which would naturally combine sport selection, orientation of sport training with stages of many years sportsmen's perfection [15,21]. Some authors published their researches of different kinds of handball trainings [3,6,10,12,14 et al.]. Such, undoubtedly little, part of special literature conditioned the task of our research [2,10].

The research was carried out in compliance with plan of scientific & research works of theory and methodic of physical education and sports department of Zaporozhye national university "Theoretical-methodic principles of individualization of training process in game kinds of sports".

### Purpose, tasks of the work, material and methods

Acute deficit of scientifically grounded and targeted training programs for outdoor games, which would be oriented on achievement and maintaining of sportsmen's special fitness' level, required for demonstration of high sport result, conditioned formulation of the following **purpose of our research** – analysis of training system of highly qualified handball players of supreme league team, handball club "ZTR" (GK "ZTR") – multiple champion of Ukraine, basic team of combined team of Ukraine.

Pedagogic observations were conducted in annual micro-cycles on base of GK «ZTR» of game seasons 2006-2013. 125 sportsmen (from candidate master of sports (CMS) to international master of sports (IMS) of Ukraine) took part in experiment. In the course of our researches we carried out generalization of scientific-methodic literature, pedagogic observations, analysis of training and competition functioning, methods of mathematical statistic.

### Results of the research

Constant monitoring and analysis of main trends of development of world and domestic handball are necessary preconditions for creation and improvement of effective system of highly qualified sportsmen's training [7,17, 19]. Main factor of achievement of stable sport results in training conception is constant improvement of training technology. For example as a result of conducted in GK «ZTR» researches we determined the following specific trends of development:

- ✓ Intensification of training process;
- ✓ Increasing of role and portion of special physical training in training process;
- ✓ Acceleration of training process owing to constant improvement of training methodic alongside with fast devaluation of technical-tactic actions;
- ✓ Unification of training as result of quick spreading of progressive technological innovations (TRX, Beep-test and so on) in handball that ensures decisive one-side advantage at competitions;
- ✓ Personification of individual training in the frames of stabilized parameters of training load by time, by quantity of trainings and training days;
- ✓ Combination of individual and team approach to planning and programming of teams' training;
- ✓ Increasing of control games' quantity in annual macro-cycle;
- ✓ Adjustment of highly qualified handball players' fitness up to complete readiness for competition functioning;
- ✓ Erasing of borders between periods of training and reduction of recreational period in annual cycle; intensification of scientific-research works (SRW) on development and foundation of main components of innovative technologies for trainings, videlicet: stimulators, technical devices and aids of control. In combination it permits to increase effectiveness of training and development of required physical qualities.

The purpose of trainings at GK «ZTR» implies achievement of planned sport-technical results and normative indicators at the stages of many years cycle. Methodological base of handball players' training conception is perspective prognostic approach and principle of advanced development, realized by creation of optimal excessiveness.

Basic principle for targeted planning, programming of training in macro-cycles and creation of optimal excessiveness are targeted perspective-prognostic models of future competition functioning in matches of future cycle of training. They are developed on the base of analysis of trends and prospects of European handball with optimal forestalling of programmed complexity, quality and reliability of technical tactic actions' fulfillment by main adversaries and corresponding to them functional demand [16,18].

Modern technology of integral training of team «ZTR» stipulates development and application of the following targeted perspective-prognostic models:

- model of team-winner;
- individual model of the best striker;
- individual models of best player with combination of all technical-tactic actions (TTA).

In their turn they include:

- models of content and difficulties of competitions;
- models of quality and reliability of technical-tactic actions' fulfillment;
- models of physical and functional fitness, workability and competition endurance;
- models of mental fitness.

Besides, there are developed and used:

- models of training process and training load;

- model of competition schedule (main competitions, preparatory, selecting, control competitions with determination of their targets and tasks).

Targeted models become more complex in every new cycle of training. They are the basis of choosing and development of new technical means and methodic techniques of forestalling mastering of required future motion functioning. Model characteristics of all kinds of fitness are regarded as targeted dialectic bench marks, which have variable and inter-compensating, character, considering individual features of handball players.

One of the most important conditions of sport efficiency's increasing in process of multi-year training is development of organized in hierarchy way plan, stipulating specific tasks, subordinated to main strategic target.

The main among them are the following:

- creation of optimal excessiveness (technical, tactic physical, functional, mental and theoretical);

- forestalling mastering of new super difficult exercises and timely mastering of targeted model of current macro-cycle;

- ensuring of reliable and highly efficient functioning of handball players in conditions, which are more complex than competition conditions.

Tactic tasks in process of many years training are set and solved as the tasks of targeted development. Simulation, planning, programming and pedagogic projecting pf process of many years integral training is carried out from finish (set for the future target) to start (initial state of training) as it is accepted in targeted complex approach.

As the base of 4 years Olympic training cycle's there served principle of multiple repetitions of trained in detail models before competition period, which are completed by competitions. As usual 4 years cycle is divided into 4 annual cycles and every latter – into 2 half year macro-cycles. In its turn every macro-cycle is divided in 6 monthly meso-cycles, the latter – in 4 weekly micro-cycles with organized in detail structure. It permits to adequately simulate and project in 7 half year meso-cycles the last cycle of training and its final stage on the base of multiple repetitions with introducing of necessary corrections in the course of training.

#### Conclusions:

We have proved the purposefulness of training process's construction for highly qualified handball players, considering structural components of training system: by structure of separate training, day and micro-cycle; by meso-structure – the structure of training stages, which included a number of micro-cycles; by competition period – structure of training cycle.

As per the requirements of systemic-structural approach we presented technologies of training, described methodology of training process's management in conditions of many years training.

The prospects of further researches imply studying of individual highly qualified handball players' training, considering their game roles.

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