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**STRUCTURE OF MODEL BUILDING FOR A LONG-TERM TRAINING PROCESS OF
HIGHLY QUALIFIED TABLE TENNIS PLAYERS IN ANNUAL MESOCYCLES OF
SPORTS TRAINING**

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Annotation. *For the effective implementation of the long-term sports training of highly qualified table tennis players women athletes, it is especially important to conduct not only an initial sports selection of girls aged 7 to 8 years, but an inter-stage sports selection for further intensive table tennis training, for which, in our opinion, a sports-pedagogical algorithm is also required and professional activities of table tennis coaches. Such an algorithm of actions should also be a unified organizational and methodological system, embodying a sequence of necessary activities that provide a fairly effective inter-stage selection of table tennis athletes. This algorithm of pedagogical actions should reflect: a medical examination; morphological state of development of women table tennis players according to the Kettle index; psycho-motor condition by types of sensorial-motor reactions and tapping test, taking into account the stage of sports training; general motor development for testing basic physical qualities, taking into account the stage of sports training; coordination-motor development for testing specialized coordination abilities, taking into account the stage of sports training; technical development of women table tennis players taking into account the stage of sports training; results of presentation at competitions taking into account the stage of sports training.*

Keywords: *long-term training, mesocycle, sport training, annual cycle, training process, highly qualified table tennis players.*

The training of highly qualified athletes from beginner table tennis players is optimally needed a 8-year period of systemic training process, which provides a number of (eight) annual mesocycles, including the necessary types of sports training, correlated with solvable stage tasks and a specific level of game qualification. At the same time, each annual preparatory stage (mesocycle) of sports training has continuity, both in terms of the training effects on athletes and the resulting combination of types of training effects, which reflect the pedagogical, psychological, physical and technical and tactical aspects of sports training [1, 2, 5]. Studies used in each annual mesocycle of training processes envisaged the obtaining of actual data that would allow quite objectively to judge which

impacts, to what extent, which preferential orientation and which nature of their distribution is optimal [1, 4, 6]. We determined that in each of the annual mesocycles, such training effects included such basic periods as: general preparatory, pre-competitive, competitive and transitional. At the same time, we added a special preparatory stage to a number of the above stages of sports training for highly qualified table tennis players, which, in our opinion, was of exceptional importance and was leading in terms of the formation of proper coordination abilities among table tennis players, aiming for the highest qualification. And it is quite natural that the structure of each annual mesocycle was identical, with the exception of those tasks that were set for a specific type of training. At

the same time, in order to identify the optimal, from the point of view of effectiveness forms of organizing the training process, the study analyzed the practical experience of table tennis coaches (n = 11) concerning the traditionally determined structural construction of the indicated periods of various training effects in the annual cycle. The study of this issue has shown that a unified system of structural construction of the presented periods of the training process for highly qualified table tennis athletes, including special physical training, does not exist. There are only a few instances of planning the training effects of the classical style, where the majority is

dominated by strength and speed-strength means of general physical training of table tennis players at various levels [3, 5, 7].

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On the basis of theoretical elaborations and their verification in preliminary experiments, we designed 8 annual mesocycles for training highly qualified table tennis players. One of the structural variants of the 8-year macrocycle - the annual mesocycle is presented in Figure 1.

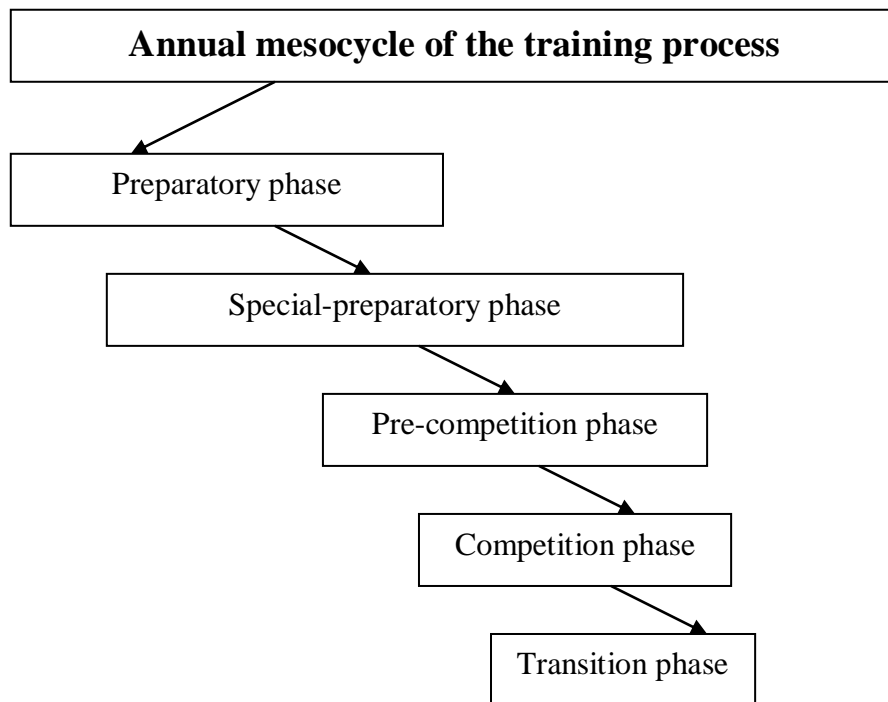


Fig.1. A general idea of the structure of the annual mesocycle of the training process of highly qualified table tennis athletes

The hypothesis of the research - the structural features of the developed model of a long-term training process of highly qualified table tennis players.

The object of the research - a system of long-term training of highly qualified table tennis-athletes.

The subject of the research - the structure of the long-term training process of table tennis- athletes in the annual mesocycles of sports training at the current stage.

Objectives of the research

1. Analysis of the practical experience of table tennis coaches about the traditionally

caused by structural construction of periods of various training effects in the annual cycle.

2. The planning of training impacts in the process of multi-year training in the annual mesocycles of highly qualified table tennis players at the current stage.

3. Creating a fundamental system of structural construction of periods of the training process that includes all kinds of sports training, their special combination and content.

As can be seen from Figure 1, the annual cycle of the training process is subdivided into a number of relatively independent and at the

same time interdependent stages (preparatory, special-preparatory, pre-competitive, competitive, and transition), the duration of which, in our example, corresponded to different time parameters (microcycles). It should be noted that, according to the structure shown in Figure 1, all 8-year mesocycles are identical. At the same time, they naturally differ in their undertaken tasks in types of sports training. For example, the preparatory phase of the first three years of the sports training process consists of general physical, special physical and technical training. In the Figure 2 is illustrated this approximate distribution.

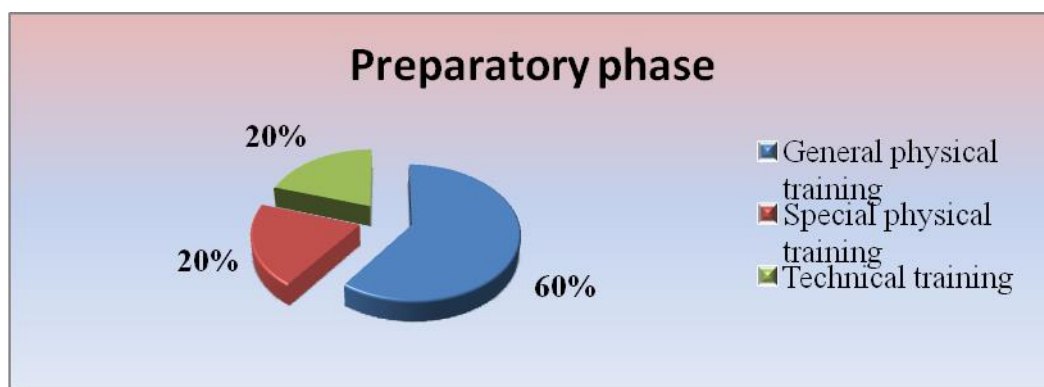


Fig. 2. The approximate ratio of the volume of training impacts of various preferential orientation in the preparatory phase of the annual cycle for highly qualified table tennis athletes

At the same time, as can be seen from Figure 2, the volume distribution of types of sports training in the preparatory phase is ambiguous. So, in this phase, the most of the training sessions is given to the general physical training - up to 60% of the time. And this stems from the act that in this phase it is necessary to develop and improve power, speed-strength abilities, their speed of movements and overall coordination.

Figure 3 shows the structure of a special-preparatory phase, consisting of general

physical training - up to 20%, special physical training - up to 30%, and technical and tactical training - up to 30% of the time allotted to the training process. Such a configuration of distributed time for types of training is due to the fact that in this phase the distributed time for general physical training decreases (up to 20%), but the time allotted for special physical training (up to 30%) increases, involving the study and improvement of special coordination movements as applied to table tennis.

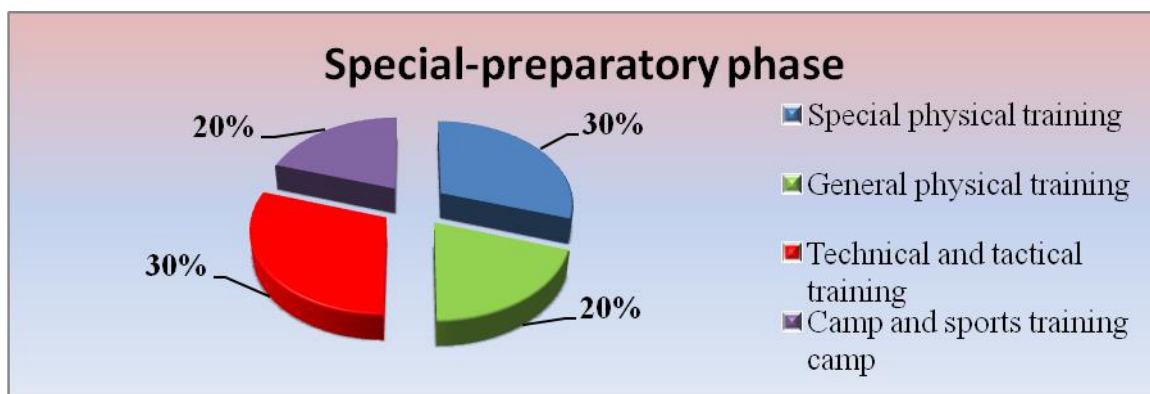


Fig. 3. The approximate ratio of the volume of training impacts of various preferential orientation in a special-preparatory phase of the annual cycle for highly qualified table tennis athletes

Also in this phase, time is allotted (up to 30%) for the technical and tactical training of table tennis players, whose task is to absorb the various and most rational technique applicable to a two-sided game.

Figure 4 shows the distribution of time in the pre-competition phase of the training

process for such types of training, the main task of which is to test acquired abilities and skills in game situations of the republican and international scale (up to 40%). At the same time, special physical as well as technical and tactical training are provided for in this period (up to - 20% and 40% respectively).

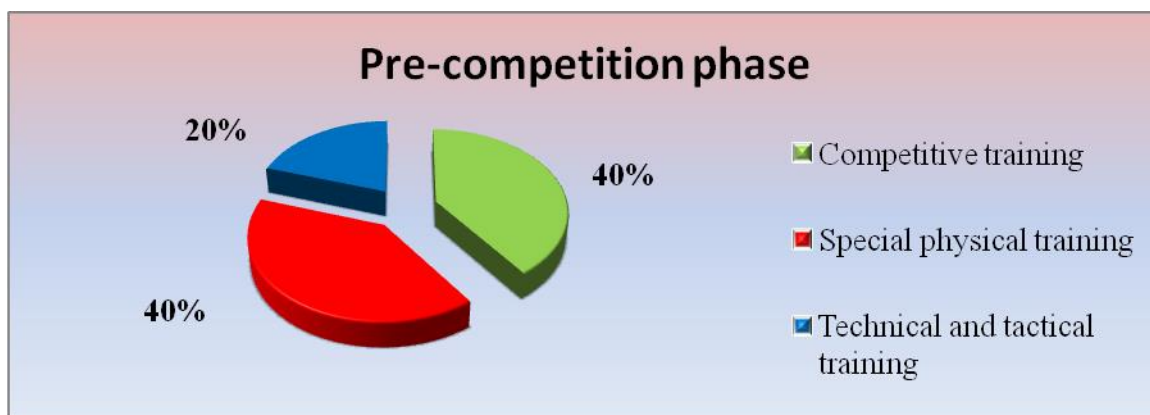


Fig.4. The approximate ratio of the volume of training impacts of various preferential orientation in the pre-competition phase of the annual cycle for highly qualified table tennis athletes

Figure 5 graphically shows the competition phase of highly qualified tennis players, whose main task is to consolidate acquired technical abilities and skills in game situations and achieving a high sports results of the highest international level and analytical work on mistakes.

As can be seen from Figure 5, the competition phase consists of proper competitive training (up to 80%) and the technical and tactical analysis (up to 20%), which includes work on competitive mistakes and a detailed study of techniques and tactics of other athletes of higher qualification.

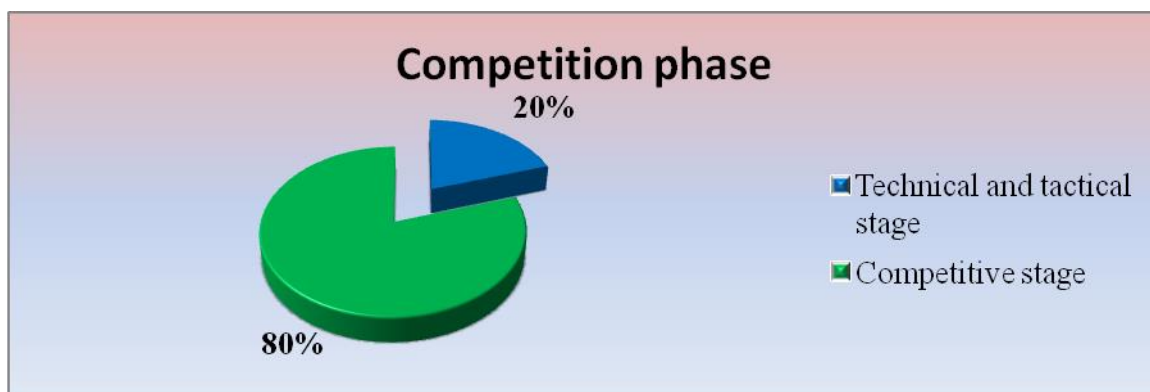


Fig.5. The approximate ratio of the volume of training impacts of various preferential orientation in the competition phase of the annual cycle for highly qualified table tennis athletes

Figure 6 graphically presents the transition phase of the annual training system for highly qualified tennis players, whose main task is to restore functional abilities through active

recreation (up to 70%) and gradually adapt to the subsequent preparatory phase (up to 30%) of the training process of highly qualified table tennis players athletes.

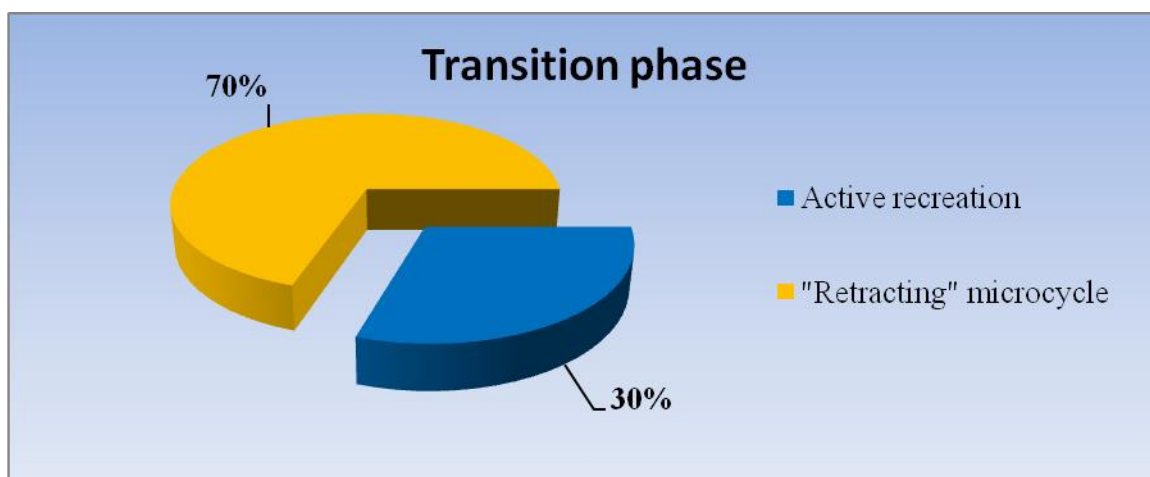


Fig.6. The approximate distribution of activities in the transition phase for highly qualified table tennis athletes

At the same time, pedagogical, psychological, medical and biological and hygienic means of reconstruction processes were actively used. Further, after active recreation, tennis players athletes were gradually drawn into the mode of the preparatory phase, in preparing for the upcoming training loads. The peculiarity of the

“retracting” process was also the organization of the inter-stage selection of athletes for further training activities in the next annual stage.

Figure 7 shows the classification of recovery’s funds in the transition phase of the training process of table tennis players.

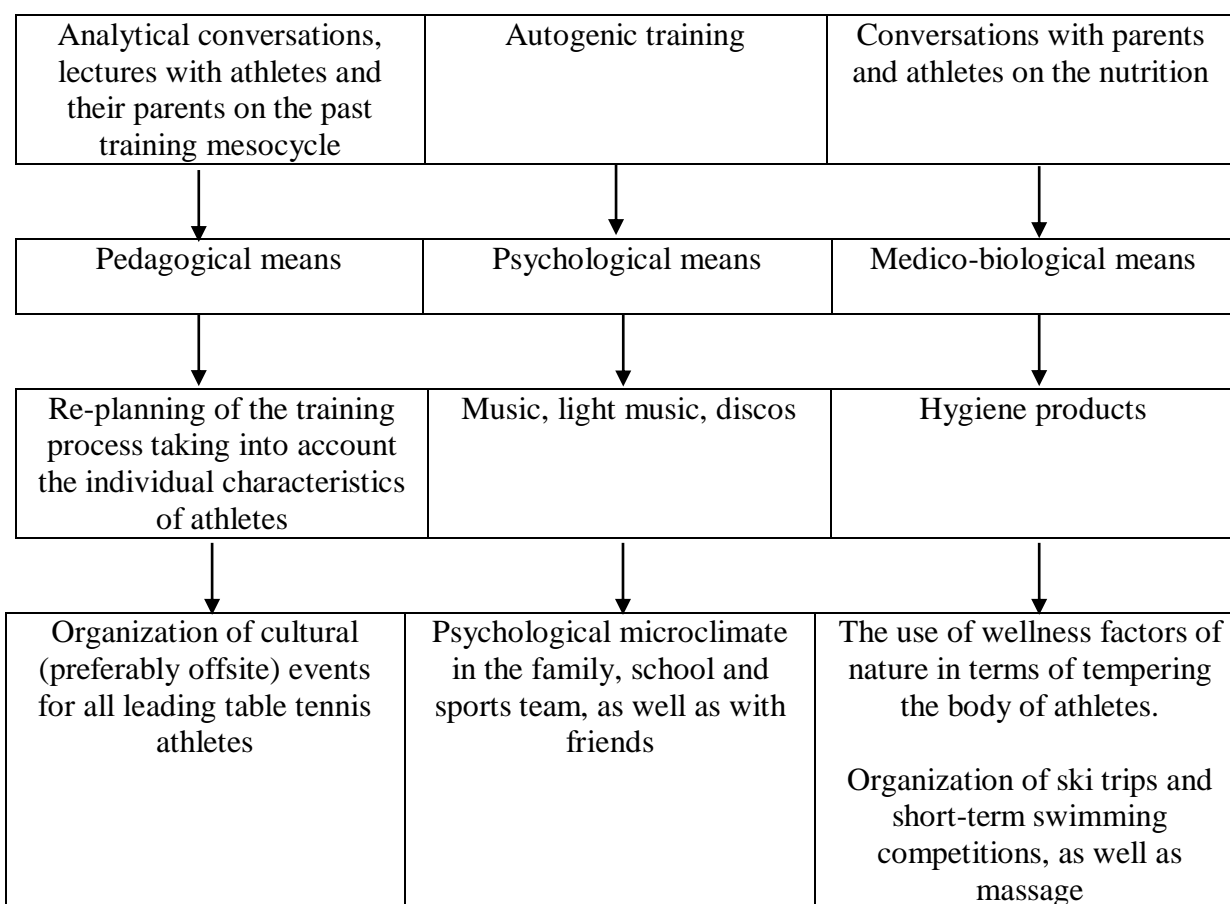


Fig. 7. Classification of recovery's funds in the transition phase, for table tennis players-athletes of pedagogical, psychological and medical and biological nature

At the same time, as already noted, the peculiarity of the “retracting” process was also the organization of the inter-stage selection of athletes for their further training activities in the next annual cycle. In these weekly microcycles were taken from tennis players athletes benchmarks for general and special physical training, as well as technical tests of a specialized nature, the successful implementation of which in conjunction with the results of the main qualifying competitions were the basis for the transfer of athletes to the next annual stage of training process.

Conclusions

1. For the effective training of highly qualified table tennis athletes, it is necessary to plan annual mesocycles of the training

process, in which all training stages should be reflected: preparatory, special-preparatory, pre-competition, competition and transition, volume-reflecting all types of training impact on tennis players athletes and representing as a whole mutually conditioned system of formation of highly qualification among table tennis players.

2. Annual mesocycles will constitute the 8-year period of the macrocycle of the training process, when athletes after 8 years achieve the highest qualification level.

3. Special attention should be given to the special-preparatory phase of the training process, where special coordination abilities of tennis players should be formed, which, along

with sufficient technical and tactical training cause their qualifying success.

4. All periods of the training process must be caused with the tasks of both the annual

mesocycles and the leading task of the 8-year macrocycle - to achieve the level of high qualification of the international level in table tennis.

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