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## **GENDER-DIFFERENTIATED APPROACH IN THE TRAINING OF QUALIFIED ATHLETES**

*The article presents the main provisions of the developed technique of individualization of training in the annual cycle of female athletes specialized in sprinting. Proved the efficiency of the use of gender-differentiated approach in the training of qualified athletes.*

**Key words:** *athletes, methodology, individualization, gender features.*

**Introduction.** The increased attention of scientists is now in the plane of optimization of training methods, which acts as a complex and multifaceted process of rational use of a number of components, based primarily on the implementation of the principle of individualization and, as a consequence, contribute to the provision of a high level of sports performance, as well as determining the degree of readiness for sports achievement [2, 3, 4]. One of the strategic directions, leading to the increase of efficiency of training of high-class athletes, is the process of optimal distribution of specific training effects. The implementation of this approach is possible only if the state of the athlete, his individual characteristics and adaptability of responses of different urgency, severity and focus on the given impact [2, 3, 5] are taken into account.

When planning a macrocycle for training athletes specializing in high-speed-power types of athletics, it is advisable to structure the coaching activity in a certain way [2]. Thus, initially revealed the level of morphological and functional properties and special training of the individual. Then the planned sports result for the most important competitions of the forthcoming season is defined and, depending on expected effect, the program of competitive activity is developed. Next, a model is created that reflects the dynamics of indicators characterizing the special physical and technical readiness of the athlete in the macrocycle. To assess its current functional state at each stage of the annual training cycle, the terms of control (stage) testing are set and informative indicators are selected.

Then the optimal value of the training load volume is determined, the distribution of which is focused on ensuring a steady increase in the level of the special performance of the athlete [2]. By comparing the individual and model dynamics of indicators of special training, you can adjust the training program. Thus, the interaction of the principles of programming and individualization of training athletes.

It should be noted a specific aspect that is important for the effective work of the coach with women – the identification of athletes with somatotypes: feminine and masculine. This direction in sport is defined as a gender-differentiated approach [1]. The analysis of the special literature has shown that the research in this area is represented by individual works [1, 2], which determines the relevance of the study.

**The purpose of the study** is to justify the effectiveness of the developed method of individualization of training athletes specializing in sprinting.

**Research organization and methods.** The study was conducted on the basis of the research laboratory of Olympic sports of Gomel state University. F. Skaryna, attended by girls (n=19), specializing in short-distance running and having sports qualifications of candidates and masters of sports. During the year, a pedagogical experiment was conducted, during which the athletes of the experimental group (n=9) trained according to the developed by us individualized training method, and the runners of the control (n=10) trained with personal trainers. The standardized S. Bem "Masculinity / femininity" technique was used to determine the gender type of subjects.

**The results of the study and their discussion.** The practical implementation of the developed technique was that the loads were distributed by mesocycles, and the volume of training load was determined individually (to a greater extent for feminine athletes), in accordance with the tasks of special power or sprint training. This model of the training process to ensure consistency with dynamics of the training effects of rhythmic wave-like changes in the functional state of the organism specific athletes.

In the competition period, the content and volume of loads in athletes have been somewhat changed, in accordance with the timing of the most important competitions. The latter is due to the fact that the implementation of a specific load in the adverse phases of the ovarian-menstrual cycle (OMC) allowed in the future to perform quite successfully at competitions that coincide with these phases.

To control the changes in the level of special physical fitness of runners, the indicators of tests with a high correlation with the result in the main competitive exercise were recorded. The test was conducted for each of the athletes in one and the same, the most favorable (postmenstrually or postovulatory) phase of the OMC.

The use of gender-differentiated approach in the training process of athletes of the experimental group had a significant impact on the reliable change in the results of some indicators of special training. Thus, the result in running at 20 m with the course, characterizing the level of absolute speed, improved, on average, in masculine girls from 2.44 to 2.26 sec ( $p < 0.05$ ), and in feminine – from 2.46 to 2.42 sec ( $p > 0.05$ ).

In the 60 m race, there was also a significant improvement in the running time of this distance in masculine girls, where the average result changed during the experiment from 7.97 to 7.76 s ( $p < 0.05$ ). Less significant and statistically unreliable mean values were found in feminine runners – from 7.98 to 7.92 s ( $p > 0.05$ ). Data from the 300m run also show improved results in the experimental group. Masculine girls increased their average result by 2.06 s ( $p < 0.05$ ), and feminine by 1.20 s ( $p > 0.05$ ).

Regarding the evaluation of speed-strength abilities (long jump from the place), we can state a significant improvement in the results of athletes of both gender groups. Masculine girls improved, on average, the result from 243 to 264, and feminine – from 239 to 258 cm.

In the control group engaged in the standard technique, there was a slight (unreliable for 5% of the significance level) increase in the results in all tests used.

The increase in the level of special training of runners of the experimental group contributed to the growth of results in the run and the main distance. Thus, the average result in the 100 m race in the season improved in masculine athletes by 0.22 s, and in feminine by 0.13 s. Athletes of the control group, on average, began to run better this distance by 0.02 s.

When choosing different types of training effects during the mesocycle training, equal in duration OMC, should take into account a number of factors. So, for feminine athletes characterized

by the constancy of specific biological cycle, as well as the power phase of its occurrence. In masculine athletes, to a greater extent, there is a violation of the cyclic oscillations of the functional state of various organs and systems of the female body as a whole, due to the phases of the OMC. In addition, for the two gender groups of athletes the greatest amount of exercise with weights to perform better in postovulatory phase biorhythmic body, athletes, and the volume of jumping exercises should be planned on postmenstrually and postovulatory phase of the cycle.

**Summary.** The practical implementation of the developed model in the pedagogical experiment allowed to significantly reduce the total annual volumes of training load of different directions, as well as to increase the level of special training. The increase in the sports result occurred to a greater extent in female athletes of masculine type and in the smaller – feminine. The proposed content and distribution of training effects contributed to the optimization of the current and stage control.

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## ГЕНДЕРНО-ДИФФЕРЕНЦИРОВАННЫЙ ПОДХОД В ПОДГОТОВКЕ КВАЛИФИЦИРОВАННЫХ ЛЕГКОАТЛЕТОВ

*В статье представлены основные положения индивидуализированной методики подготовки квалифицированных бегуний на короткие дистанции. Практическое применение разработанной модели в педагогическом эксперименте позволило существенно сократить суммарные годовые объемы тренировочной нагрузки различной направленности и повысить уровень специальной подготовленности. Выявлено, что применение разработанной методики индивидуализации подготовки бегуний на короткие дистанции способствовало повышению уровня специальной подготовленности и приросту спортивного результата в большей степени спортсменок маскулинного типа и в меньшей – фемининного.*

**Ключевые слова:** спортсмены, методология, индивидуализация, гендерные особенности.