RUSSIAN JOURNAL OF PHYSICAL EDUCATION AND SPORT
Volume 17 No. 3 2022

UDC 796.89 **DOI: 10.14526/2070-4798-2022-17-3-16-22**

Pedagogical conditions, necessary for the effective development of the basic elements game technique during the process of training 15-17 year-old female volleyball players

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Abstract: Nowadays the specificity of volleyball improvement is connected with the popularity of this game increase among young people. The competitions provide collective efforts of the players with different tempo during actions realization. In order to increase the effectiveness of athletes' readiness, achieve high tournament results and for more varied use of volleyball techniques it is necessary to increase motor skills. The specificity of the training lessons among female volleyball players is in the necessity to correct the readiness of the separate players and improve team work in general. In this connection great role is given to the trainings effectiveness increase on the basis of taking into account the basic elements of game technique. Materials. Pedagogical conditions determination, necessary for effective development of basic elements of game technique during training 15-17 year-old female volleyball players. ***Research methods***. Information sources and methodical literature analysis and summarizing, specialized literature sources studying, interviewing coaches, techniques estimation by the professionals, questionnaire survey among female athletes, methods of mathematical statistics. ***Results.*** The article presents pedagogical conditions. They are necessary for an effective development of the basic elements of game technique during the process of 15-17 year-old female volleyball players training. These conditions include the following: the skills of spatial orientation formation among the players taking into account the specificity of the definite moment of the match; strength and speed development, which help to achieve the effectiveness of technical actions fulfillment by the players during the matches; the skills of orientation on the sports ground formation among the players in a usual game position. The most significant conditions are the following: the criteria creation in order to revel and estimate the degree of orientation on the parquet skills, taking into account the definite moment of the game; individual skills development and their application correction simultaneously with the speed of movement along the sports ground increase and the power of slapping the ball; creation of the speed indices and strength parameters estimation (according to 5-point system) among female volleyball players. ***Conclusion.*** It is proved that the revealed conditions creation in the training process helps to increase the effectiveness of female volleyball players' activity in terms of competitions.

Keywords: technical training, volleyball, physical training.

For citation: Elena L. Samoylova*, Aleksandr E. Bolotin. Pedagogical conditions, necessary for the effective development of the basic elements game technique during the process of training 15-17 year-old female volleyball players. Russian Journal of Physical Education and Sport. 2022; 17(3): 14-19. DOI: 10.14526/2070-4798-2022-17-3-16-22.

Introduction

Nowadays the specificity of volleyball improvement is connected with the popularity of this game increase among young people. The competitions provide collective efforts of the players with different tempo during actions realization. Coaches try to achieve game dynamics owing to high level of athletes' readiness. Players should move quickly along the sports ground, solving different motor objectives. For this purpose it is necessary to have high degree of physical, technical and tactical readiness of athletes in most sports games. [6-10].

In order to increase the effectiveness of athletes' readiness, achieve high tournament results and for more varied use of volleyball techniques it is necessary to increase motor skills. The specificity of the training lessons among female volleyball players is in the necessity to correct the readiness of the

separate players and improve team work in general. In this connection great role is given to the trainings effectiveness increase on the basis of taking into account the basic elements of game technique.

Materials and methods

Nowadays the main objective of the training process among 15-17 year-old volleyball players is their game skills development by means of the basic elements of game technique correction [5].

We consider the models of training creation in order to improve the accuracy of players' movements as the main condition for the effectiveness of game improvement. The effectiveness of the game is conditioned by the quality of the last stage of movement realization for the game with the ball. Great attention is given to studying expediency of spatial-strength improving characteristics of motility, accuracy of movements, when the players move along the sports ground; individual components of the body; correct distribution of the muscles work; accuracy of the moving trajectory among female volleyball players.

In order to solve mentioned above problems we realize physical qualities development (among them is movements coordination). We also use the range of methodologies of volleyball techniques development in terms of the initial stages of training as the basis for the main technical actions understanding [3].

We consider high importance of the conjugate methodology as the main condition. It provides optimization of technical game components development [2]. In order to solve this problem we should substantiate pedagogical conditions. They are necessary for an effective development of the basic elements of game technique during the process of 15-17 year-old female volleyball players' training.

In order to define these pedagogical conditions we organized a questionnaire survey among the coaches of the qualified female volleyball players. 37 respondents took part in the survey. Table 1 presents the results of the survey.

Table 1

The structure of pedagogical conditions, which are necessary for an effective development of the basic elements of game technique during the process of training 15-17 year-old female volleyball players (n=37)

Rank place	Pedagogical conditions	Rank index,%
1	The skills of spatial orientation formation among the players taking into account the specificity of the definite moment of the match	28,2
2	Strength and speed development, which help to achieve the effectiveness of technical actions fulfillment by the players during the matches	21,8
3	The skills of orientation on the sports ground formation among the players in a usual game position	17,1
4	The criteria creation in order to revel and estimate the degree of orientation on the parquet skills, taking into account the definite moment of the game	12,9
5	Individual skills development and their application correction simultaneously with the speed of movement along the sports ground increase and the power of slapping the ball	11,3
6	Creation of the speed indices and strength parameters estimation (according to 5-point system) among female volleyball players.	8,7

The skills of spatial orientation formation among the players taking into account the specificity of the definite moment of the match the respondents defined as the main condition. It is necessary for effective development of the basic elements of game technique during the process of training 15-17 year-old female volleyball players. This condition can be realized, when in terms of the lessons intellectual objectives are realized. Mentioned above abilities help to improve game

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In order to form the ability to orient oneself on the sports ground we use the exercises. They demand different distracting actions realization by the players.

Game technique considerably influences the results of the matches. The quality of the techniques fulfillment by the separate volleyball players defines the game content of team actions. However, the base of success can form each aspect of training – physical training, technique, psychological and functional training. An important moment is the opportunity to overcome the appearing difficulties in a game [1].

The coaches can use the method of intellectual tasks application in terms of training female athletes. In some cases basic strategies are used. They are applied for competitive work of the players development. In this connection it is necessary to reconsider the existing techniques for female athletes, work on the basic elements of game technique for the set aims realization.

During the research we took into account the fact that the players of volleyball sports school took part in the research (15-17 year-old girls). In terms of trainings correction we used the following:

- scientific-methodical sources study;
- specialized literature sources study;
- techniques estimation by the professionals [4].

We defined the following main techniques of the players: volleyball serve, pass, strike in an attack, return, blocking game apparatus. All actions provide individual specificity and the conditions. In terms of them a technique is fulfilled. Picture 1

<table>
<tr><td colspan="3">Techniques</td></tr>
<tr><td>Ball serve
(from above and from below)</td><td>Ball pass (from above and from below with two hands)</td><td>Attacking strike</td></tr>
<tr><td colspan="3">Ball return with two hands below and defensive actions</td></tr>
<tr><td colspan="3">Blocking</td></tr>
</table>

Fig. 1. The basic elements of game technique classification among female volleyball players

At the first stage of the analysis we realized the survey among the girls in order to reveal the significance of all techniques, according to 5-point mechanism of estimation. The results of techniques significance estimation are presented in table 2.

Table 2

The results of expert analysis of the techniques significance among female volleyball players

The techniques	Experts				
Ball serve	5	5	5	5	25
Ball pass	3	4	3	4	19
Attacking strike	5	4	4	4	22
Ball return	4	5	5	5	24
Blocking	5	4	4	5	22

The results of expert analysis of techniques significance among female volleyball players prove that the first position according to general amount of points takes a ball serve, the second position takes a ball return.

Ball blocking, “attacking strike” took the 3rd and the 4th positions. The 5th position took the ball pass.

We also organized a questionnaire survey in order to reveal the expediency of techniques correction. In terms of the specificity of players’ actions analysis

during the competitions we received the ratio of game techniques. They are realized by qualified athletes (Fig. 2).

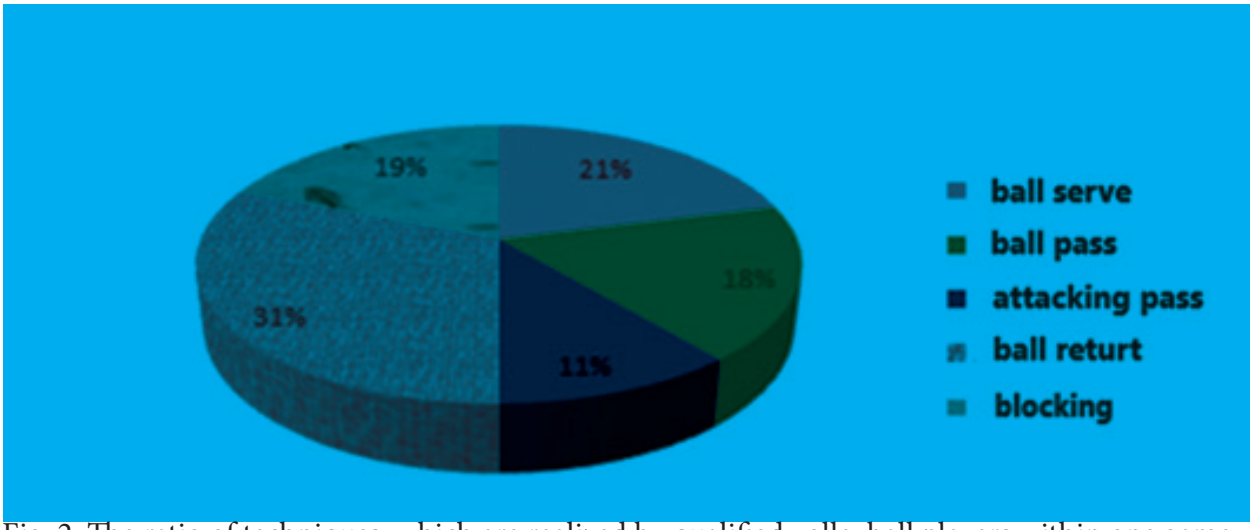

Fig. 2. The ratio of techniques, which are realized by qualified volleyball players within one game

A questionnaire was also conducted in order to determine the feasibility of correcting the technical techniques of the players. As part of the players' actions specifics analysis during the competition, the ratio of game techniques that are produced by qualified athletes was obtained. According to the results of the survey, technical techniques were assigned the following position of submission – 21%, passing the ball – 18%, attacking kick – 11%, receiving the ball – 31%, blocking – 19%.

It should be noted that the structural corrections in terms of the techniques comparison, fulfilled by qualifies players, are realized taking into account game position. We can define that general significance of the individual techniques is conditioned by the course of the game. It was revealed that when the skills of the female volleyball players become similar to the skills of major league players, the game becomes quicker and more entertaining.

As the second condition the respondents mentioned strength and speed development. They help to achieve the effectiveness of technical actions fulfillment by the players during the matches. Such skills appearance should be oriented to standard game positions. In order to automate the considered technique it should be repeated many times during the trainings and training games.

The characteristics of strength and speed are taken into consideration. These qualities in complex condition the effectiveness of the techniques fulfillment by the players. We also estimated the degree of speed and strength characteristics development in accordance with 5-point methodology. The most significant was the effectiveness of the mentioned above skills combination by the volleyball players. Table 3 presents the scale and evaluation criteria of the techniques effectiveness among female volleyball players.

Table 3

Evaluation criteria of the techniques correction among female volleyball players

Table 3

Evaluation criteria of the techniques correction among female volleyball players

Evaluation criteria	Points	Characteristics of evaluation
"Perfect"	5 (five)	A female volleyball player demonstrates muscle efforts in terms of techniques realization (serve, pass, strikes, apparatus blocking), correctly orients oneself in space in a usual, non-standard position, moves correctly during the game.
"Good"	4 (four)	We see good level of muscle efforts terms of necessary actions realization, during the process of orientation in space in different position. The actions are fulfilled with a necessary technique, strength, speed skills are rationally combined in terms of the definite game actions on the sports ground.
"Satisfactory"	3 (three)	We see a satisfactory index of muscle efforts in terms of techniques fulfillment in an individual situations, the muscle efforts are realized with a low level of accuracy in order to fulfill the movement in a proper way during game techniques use, combining speed and strength oriented skills. The range of difficulties in these skills realization should be defined, taking into account the difficulty of the technique fulfillment, the definite moment of the match.
"Unsatisfactory"	2 (two)	Not correct muscle efforts coordination in terms of techniques realization in individual moments of the match; the absence of readiness to take the leading role during the game.
"very bad"	1 (one)	Nor correct coordination of female volleyball players in terms of the game.

The research works showed that the significant conditions are the following: the skills of orientation of a sports ground formation among the players in a usual gam

e position; individual skills development and their application correction simultaneously with the speed of movement along the sports ground increase and the power of slapping the ball; creation of the speed and strength indices parameters estimation (according to 5-point system) among female volleyball players.

Conclusion

In order to improve the training process of 15-17 year-old female volleyball players it is necessary to analyze the structure of the techniques change, taking into account the definite moment of the match, its specificity. The received results prove that general significance of different techniques is conditioned by the position of the volleyball players during the game. During the training the following indices should be corrected: the skills of the player' spatial orientation taking into account the specificity of the definite moment of the match; the skill of orientation in a usual game position; strength and speed development. They help to achieve of the techniques effectiveness fulfillment during the matches. Speed and strength oriented parameters should be measured according to 5-point system. The indices should be estimated separately and in complex. Used by coaches indices during the process of technical actions estimation in terms of the definite game moments give an opportunity to develop individual skills, correcting their application, simultaneously paying attention to the speed of movement along the sports ground and the strength of the strike. Technical actions development among the female volleyball players

helps to improve the results, the amount of gained points in terms of competitions.

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Submitted: 28.07.2022

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