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FINAL PHYSICAL TRAINING PROGRAMS SPECIFIC FOR EACH ROLL IN THE PERFORMANCE VOLLEYBALL OBTAINED FROM EXPERIMENTAL RESEARCH

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ABSTRACT: Given the importance of defining the physical in getting sports performance, the present paper aims at to improve the physical in the game. In literature there are studies on physical preparation of volleyball players, but I think that physical training for each player, depending on the position they occupy in the team, it is considered to be a decisive element in performance in the game. This special preparation for each player based on the position represents something new and increases the performance of each player, and elite or more increases the performances in volleyball. The experimental physical training was done with one team that is part of the first echeloning the nationals by studying the development and evolution of each player after the implementation of this physical training program.

KEYWORDS: phisical training programs, volleyball players, sports performance, research

INTRODUCTION

In the present, volleyball has suffered many changes so can be observed: the growth of the impact point while hitting the ball, attack strikes intensity, has increased the number of attack actions with player coming from second line, the jump serve is also a priority in training. Also in modern volleyball is very important the special passing attack, short, extended from zone 2, 3, changing place attack from zone 2, etc.

To achieve all these changes should provide training of the volleyball players specific for each roll in the team. In this context, we propose the following objectives:

1. Leader of the game zone 1-2:

- Increasing the movement speed in the court;
- Increasing the accuracy of passing the ball;
- Development of the ability of taking rapid decisions;

2. Attacker from zone 3

- Development of the jump with short élan
- Increasing the speed of hitting the ball;
- Development of the shot blocking jumps;

3. Attacker from zone 3

- Development of the élan jump;
- Development of the hitting attack with double élan and hitting point of the ball as high
- Development of the ability of hitting the ball as on diagonal, opponent zone 5, as in opponent zone 1;

4. Attacker from zone 6

- Development of the élan jump;
- Development of the attack hitting with élan with jump as on vertically as on lengthwise
- Increasing of the ability of hitting the ball from maxim point;

5. Libero player

- Increasing the movement speed in the court;
- Increasing the hitting of the ball and send at fixed point;
- Development of the anticipation ability for the game actions
- Dexterity improvement

In the game of volleyball the maximal and minimal effort is interpolated with relaxing moments. The jumping is the basis movement quality specific for the volleyball players at which actually they keep best of the indices comparing with other athletes from other sportive domains. Therefore the education, strength development in a speed regime is a basis requirement in the volleyball player training. Practice shows that in volleyball, strength development in a speed regime

helps to perform attack hitting at the net and from second line, to perform hitting of the ball at serve and even to perform the different plunges in order to recover the ball in defensive. Main muscles used in volleyball are: flexor muscles of the body articulation, deltoid muscle, big pectoral muscle, abdominal and vertebral muscles, external muscles of the knee articulation, twin muscles and external muscles of the calf articulation.

PHISICAL TRAINING PROGRAMS SPECIFIC FOR THE GAME LEADER OF THE ZONE 1-2

A) Theme: Speed

Objective: Development of the reaction and execution speed

1) - taking the ball rebounded off the wall, thrown with different intensities and with the change of the throwing direction by the partner - 15 reps x 3 series

Indications: fewer mistakes made, indicate position of the ball

2) - taking the ball from a panel with irregular surface - 20 reps x 3 series;

Indications: will follow the correctness of the execution, of the body position when hit the ball

3) - taking the ball thrown or attacked from the position with back to the partner

4) - transverse jumps over the gym bank- 10 reps x 3 series;

Indications: it will be taking into account fast oscillation of the arms to attain the detachment

5) - playing with the ball thrown with reduced players - 3 x 3; 4 x 4;

Indications: sets will be short to 10 points and the breaks between the sets will be quite large

6) - playing with reduced players, with a single setter

Indications: passing of the setter from one side to another of the court has to be fast and precisely, if it can be possible, doing this, only on zone 2 of the attack court

7) - passing the ball with the change of the direction (figure 1), 15 reps;

Indications: passing the ball by the setter with correct anticipation of the ball reception



Figure 1. Passing the ball with the change of the direction - 15 reps



Figure 2. Outstretched passing of the ball, zone 3 - 15 reps

B) Theme: Speed

Objective: Development of the movement speed, coordination and the passing of the ball

1) - movement with passing of the ball at fixed point - 15 reps x 4 series;

Indications: will follow the send of the ball with the same trajectory at fixed point.

2) - movement from the second to the first line, zone 2, and backwards passing of the ball with the movement direction- 15 reps x 3 series.

Indications: will be accentuated quick movement to the ball and the change of the passing direction.

3) - movement from second to first line, zone 2, and short passing of the ball in front or in back depending on a signal- 20 reps x 2 series;

Indications: - signal must be distinct for an execution or other and passing mustn't be taller than 1 m.

4) - outstretched passing of the ball, zone 3 (figure 2) - 15 reps;

Indications: - stopping with facing the passing direction, cup palms in bending, the simultaneous extension of the upper and lower sides of the body.

PHISICAL TRAINING PROGRAMS SPECIFIC FOR A MIDDLE HITTER, ZONE 3

A) Theme: Jump

Objective: Development of the jump on a place and with short élan

1) - attack percussion from short pass(climb) from the thrown ball by the couch - 10 reps x 3 series;

2) - attack percussion from intense pass from zone 3 from passed balls by setter- 10 reps x 3 series;

Indications: will follow the élan carried out with a step and final explosion of the arms

3) - blockage jumps on a place - 10 reps x 3 series;

Indications: will follow how fast can block hands and not the jump amplitude

4) - jumps at block zone 3, right lateral movement, jumps at block zone, return to zone 3 with jump at blockage then left movement and jump at blockage- 10 related jumps x 3 series;

Indications: will follow the movement speed from one jump to other

5) - successive jumps over the bench, completed with an attack percussion from thrown ball - 5 reps

Indications: will follow the movement speed from one jump to other

6) - jumps at block zone 3, completed with attack percussion from thrown ball - 10 reps x 3 series (figure 4);

Indications: will follow reducing of the execution time of the player from zone 3



Figure 3. Successive jumps over bench, completed with an attack percussion from thrown ball - 5 reps



Figure 4. Jumps at block zone 3- 10 reps x 3 series

B) Theme: Jump

Objective: Development of the jump with short élan

1) - attack hit from tall pass on 3m- 15 reps

Methodical indications: will follow the arms amplitude so that the hit should be maximal with a tall point of hitting of the ball

2) - taking the ball from an attack followed by forward movement and attack from the tall ball passed on 3 m- 10 reps;

Methodical indications: will consider important reception precision and jump length

3) - arms élan with partner resistance (figure 5) - 20 reps x 2 series

Methodical indications: arms must be outstretched all the time and partner resistance decreases progressive with execution;



Figure 5. Arms élan with partner resistance - 20 reps x 2 series



Figure 6. Toe raises with the partner to espalier - 25 reps x 2 series

PHISICAL TRAINING PROGRAMS SPECIFIC FOR THE HITTER, ZONE 4

A) Theme: Jump

Objective: Development of the élan jump

1) - receiving the ball from an attack, élan and attack from normal pass- 20 reps x 3 series;

Indications: will follow élan amplitude and realization of a taller point of hitting of the ball

2) - attack hitting from normal pass with the sending of the ball to a fixed zone;

Indications: will follow the attack hitting precision - 15 reps x 3 series;

3) - Toe raises with the partner to espalier (figure 6), 25 reps x 2 series;

Methodical indications: Feet will be outstretched so the feet movement should be made only at ankles level

4) - attack hitting from normal pass followed by a hit from short pass

Indications: will follow movement speed and the attack from short pass- 10 reps x 3 series.

B) Theme: Strength

Objective: Development of the inferior part of the body in a speed regime

1) - Successive jumps with both hands touch of some balls or suspended objects - 10 reps x 3 series
Indications: will follow the movement and the interruption of the body before the jump, also taking into account the outstretched of the arms to touch the objects.

2) - Stand apart with weight in hands, toe raises, and then come back to the start position - 15 reps x 3 series

Indications: heating will be made with some easy jumps and knees must be outstretched during the execution

3) - Jump on a foot on and from a chest- 10 jumps x 2 series

Indications: will keep feet outstretched so that the feet movement should be made only at ankles level.



Figure 7. Jump on a foot on and from a chest - 10 jumps x 2 series

4) - Running on a 20 m distance with a partner in the back;

Indications: choosing of the partner will be made taking into account hitter's weight, partner must stay in a proper position as good as fixed on the hitter's back.

5) - attack hitting from normal pass followed by the reception to zone 3 from plunge with thrown ball
Indications: will follow the ball hitting in the taller point with outstretched arm.

PHISICAL TRAINING PROGRAMS SPECIFIC FOR A MIDDLE HITTER, ZONE 6

A) Theme: Jump

Objective: Development of the inferior part of the body

1) - jumps from squat to squat on a 20m distance - 5 series

2) - jumps on two feet alternating long jump with short jump on 20 m-5 series

3) - jumps on two feet over the fences placed at 2m distance on a length of 20 m -5 series

4) - élan jump over the three obstacle, completed with an attack hit from thrown ball, distance between the obstacle being 2.5 m-10 reps

5) - making of the ten attack hits from the thrown ball by the couch -3 series

6) - Semi squads by pressing the shoulders by the partner (figure 8).



Figure 8. Semi squads by pressing the shoulders by the partner 15 reps x 3 series

Before of the start of a specific physical training programs, must assure a corresponding heat for all muscles group and for the articulations that will be used in the volleyball, to avoid any injuries and to obtain desired results. The execution technique must be exactly explained to make that exercise having a maximal potential.

Effective work time is almost equal with renewal of the body after making effort; most of the cases will work with an oxygen debt. Difficulty of the exercises must be individualized for each person so must assure a progress for each athlete. Will follow the detachment of the ground and the hitter's back must be all the time right.

B) Theme: Strength

Objective: Development of great strength of the superior part of the body

1)- From lying out on the back position with outstretched feet at 90° and dynamic pushing these to the floor -20 reps;

2)- Throwing the medicinal ball of 3 kg over the net by doing a jump, trunk and arms will be in extension, the ball should be thrown by a dynamic bending of the trunk, will follow the increasing of the throwing distance - 3 series of 5 exercises

3)- Hitting of a ball suspended by the couch or partner in a taller point

Indications: - will take into account maximal extension of the trunk and of the hitting arm, hitting point must be as taller as better, a complete and fast hit of the arm - 5 reps x 3 series;

4)- From the seated position throwing the medicinal ball of 3 kg with strength with two hands and catch it by the partner

Indications: will follow the throwing of the ball with outstretched arms, arms explosion on the final throw.

5)- Semi- squads with the partner on the back- 15 reps x 2 series



Figure 9. Semi squads with the partner on the back - 15 reps x 2 series

PHISICAL TRAINING PROGRAMS SPECIFIC FOR THE LIBERO PLAYER

A) Theme: Dexterity

Objective: Development of dexterity

- running with speed on short distance, 10 m, with start from different positions, squat, seated, with the back towards the run direction, after the easy jump;

Indications: running distance will be short and timed

1) - throwing and reception of the ball from different positions, after the rise from seated, from lying out, after the rebounding off the wall off the ball

2) - successive jumps on one or two feet in different rhythms with return to the left and to the right;

3) - arranged as two persons face to face and making jumps with the touch of the hands and lateral movement - 10 reps x 3 series

4) - forward and backward movement between the volleyball court lines - 3 series

Indications: will follow arms explosion and its coordination with the inferior part of the body



Figure 10. Reception from plunge, of the thrown ball over the net- 15 reps

5) - relay - run, equilibrium movement over the gym bench, hitting of the ball with two hands in the 3 m space, thrown over the net, reception and send it back, roll on the mat, jump to touch a suspended object and movement to the start place;

Indications: the players will be divided in an equal number in both teams and will win the team that will obtain better time and less forfeit.

Forfeit: falling of the bench

Untouched suspended object

Unmaking all the relay exercises

6) - blockage at two balls kept over the net in zones 3 and 2, and in falling, their reception with plunge after what where thrown behind the blockage- 10 reps x 2 series

7) - reception of these from the plunge, of the thrown ball over the net -15 reps (figure 10)

B) Theme: Dexterity

Objective: Development of dexterity and of the orientation in the court

- 1) attack reception, zone 5, movement and reception from thrown ball, movement in zone 1 and attack reception-5 reps
- 2) fixed point reception from the serve and reception of the thrown ball - 10 reps;
- 3) attack reception with lateral left movement-25 reps
- 4) down reception with the back of the hand and rebounded the ball off the espalier - 25 reps
- 5) forward movement, 6m, rise of the medicinal ball of 3 kg, backward movement, 6m, put of ball on the floor and then forward movement with reception from lateral plunge from thrown ball -15 reps
- 6) reception from the serve with movement at dubbing of the attack (figure 11) - 10 reps



Figure 11. Reception from the serve with movement at dubbing of the attack - 10 reps
rise from the lying out, forward movement, 6m, reception of the thrown ball, backward movement, 6m, stop for 10 easy jumps followed by lateral movement in zone 5 and forward movement, 2m and attack reception.

CONCLUSIONS

1. Research instruments used and especially results analyses obtained by performing measures, first of all make it easier to establish the model of the performance volleyball player specialized on each game roll from the point of view of biological, of the technique-tactical contain, as of the manifestation degrees of the main movement qualities that are involved on the game.
2. As a result of sociological sounding in couch lines that works at performance teams and at experts from the profile faculties, it was pointed that the majority of the couch apply in the training of the athletes the frontal training and very little emphasis on the individual training on the game rolls, training that is recommended to obtain in the future a better performed results.
3. As a result of the interpreting of the results obtained on the questionnaire at which experts from the volleyball game responded, falls the idea according to which preparation level of the masculine teams of performance volleyball is a mediocre one, identified by the results of the teams and by the physical level, things that can be remedied by a scientific training in which individualized training under all its forms of manifestation may form a safe path of progress.
4. The predominant movement qualities for the performance volleyball players differ corresponding on the specific roll because of the different technical-tactical contain of these and the movement structure of the timely game.
5. The requirements for achieving of a better model for training of the performance volleyball players depending of the game roll are those to select as the best training means, so that them should correspond for the request and for the structure of the competitive game.

Physical qualities, strength and speed are manifested in a smaller or greater weight in any physical activities. Education of physical qualities does not take place in a isolated way, establishing of the one of these influencing other's development.

The research carried out in the strength and speed domains prove that strength exercises contributes to the education of both qualities. Greater offer allows defeating of the external resistance and execution of faster movements.

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