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TRAINING CHILDREN BEGINNERS IN HANDBALL

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Abstract
*Aim.*The great performances of Romanian handball have appeared as a result of scouting, sustained work and efforts and with a sense of responsibility of athletes and coaches. Studies have been performed both in our country as well an in others, with the goal of optimizing recruitment and training of children and juniors. It has been demonstrated that practicing handball from a young age contributes to learning and strengthening some specific motor skills which have an important role in obtaining performances. The goal of these studies was to develop a theory own methodical mass base of professional handball.
The development of selection and training models using selected and verified means at the ages of 8 to 10 leads to a better recruitment for beginners groups. For this purpose, efforts have been made to discover the most effective means to realize selection and training for handball and also incorporate and systematize these means in the teaching of the sport.
*Method.*Research was conducted on a group of 20 female athletes from the School Sports Club no. 1 Constanta.
To achieve the goal of the research, we used the experimental method, testing method and statistical method. After initial testing, we created specific operational methods and prepared the training planning. At the end of the experiment, a new test was realized, with the results being tabulated and statistically interpreted.
The results obtained after interpreting the data are a strong argument in favor of using adequate planning and means adapted to the needs of initiation in handball at the ages of 8 to 10.
*Conclusions.*Choosing a minimal, simplified game model using plenty of games, relays, contests, exercise structures similar to the game of handball shows that athletes progress faster and give certainty of future successes.
*Key words***:** handball, planning, training.

Introduction

Handball records at an international level a rise in preference among viewers because of its spectacularity and dynamic of the game. The great performances of Romanian handball have appeared as a result of the scouting, creativity and efforts of athletes and coaches. Studies have been performed both in our country as well an in others, with the goal of optimizing recruitment and training of children and juniors (Kunst-Ghermănescu and others 1983; Rizescu, 2008). It has been demonstrated that practicing handball from a young age contributes to learning and strengthening some specific motory skills which have an important role in obtaining performances. Studies

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have lead to the shaping and modernizing of a methodical mass base of professional handball. The development of selection and training models using selected and verified means at the ages of 8 to 10 leads to a better recruitment for beginners groups (Negulescu, 1998).

The level of game realized in the current stage internationally is very high and can only be achieved by players with a high performance capacity which is continually growing. As a result, in the contemporary concept about training in handball, instruction of children and juniors is an integral part of the preparation system for professional handball and high-level performance (Gogâltan, 1981). In this context, the quality of education for children and juniors constituted under a mass base of professional handball is a key factor to ensuring a superior performance of handballers at the current level of game requirements and in the view of its evolution.

Kunst-Ghermănescu I and others (1983) consider that the quality of the selection and preparation of future handballers is determined by several factors, among which we might mention:

the conduct of the training process that determines its quality

training of those conducting the work and continue their trening

children and junior selection ensuring a high level of objectivity

providing an educational process which answers all imperatives of science sports trening

knowing individual peculiarities of each child and junior

approaching training components, methodology and dynamic effort applied at different stages and cycles of training

Each player's training stages in actual handball must be spread over a minimum of 8-10 years. This stage is necessary and sufficient as long as there are taken into account both predisposing factors and limiting factors of performance. Selection made around the age of 8-10 years, calls, while learning and strengthening technical elements, general motor skills development. It will establish a general physical training, which will be the support of other components of sports training (Baştiurea, 2005; Mihăilă, 2004). Children at this age, "will pretend play handball", training being realized in proportion with dynamic games, relays, simple exercise structures. Dragnea A. (1996) considers that the initiation of children is the stage which immediately follows the selection and is conducted by a number of methodological rules that ensure the development of children as future performers. Gogâltan V. (1981) presents in his book "Handball - optional course" general objectives for the echelon of children beginners:

Ensuring appropriate selections in strict accordance with perspective requirements of performance handball

Improving general physical preparation with a focus on speed and skill development as well as the development of appropriate indicators for power, strength and jumping for mastering proper technical and tactical exercises

Continuous improvement of general motility content

Proper learning of main base technique of the game, building habits and their application in the bilateral game.

Learning basic tactical rules of technical exercises and appropriate unfolding of the bilateral game according to the game model set for this echelon.

The initiation stage is crucial in the formation and evolution of a handballers future and at the same time decisive for his commitment to performance sport. In the initiation process and the learning of the minimal tactical and technical content, the global method of teaching handball must be used (Rizescu, 2000). Learning, initiation must be done using a large variety of motion and preparatory games, exercising fragments and plays of the game, and even the game itself.

Race elements contribute significantly to the success of the training process. Along with learning basic techniques for both attack and defense, there will be teached basic notions and tactics (individual and collective) to increase the efficiency of these skills. Even at this stage it is recommended to use the opponent in three cases: passive, semi-active, active.

Knowing the trends for children and beginners to concern mainly with the actions of attack that gives them more reward, there must be teached within the same lessons to reverse the striker role with defender, developing equal interest in attack and defense (Hantau, 2002).

Methods

To achieve the goal of the research we used the experimental method, test method and statistical method. The research was conducted at the School Sports Club no. 1 Constanţa, on a group of children (20 girls, aged 8 to 10 years) undergoing selection for training groups of beginners.

Along with the application of somatic, physiological and motor test, for two months a preparation process was held which had the task of following initiation in basic elements of the technique of the game. After this, a series of tests with specific challenges was held. The tests consisted of:

dribbling 20 meters in a straight line

throwing the ball using the momentum of 3 steps

triangle movement (2 courses)

5 precise shots on goal (goal divided into 9 squares)

These challenges were applied to both the initial test and at the final test after 6 months of training. The results were tabulated and statistically interpreted.

Establishing training objectives and tasks, timing of training content in stages and training factors according to specific game models were adopted for a better orientation of the training process (Ghervan, 2003, Budevici, Sufaru, 2004).

A specific game model for initiation in handball was designed for attack and defense play including two phases, tactical and technical means of achievement (Rizescu, 2005).

For attack play:

Phase I: Going from defense to offense

Technical-tactical means of achievement: options running, changing direction, stops, starts, jumping, clearing the ball, passing walking and running in the same plane and depth, driving the ball, throwing the goal of running or jumping, demarcation.

Phase II: Organized attack (with a pivot system)

Technical-tactical means of achievement: layout on the court (respecting positions), passing in successive penetration, passing in horseshoe style while threatening the goal, jump shooting and normal shooting.

For defense play:

Phase I: Retreat in defense

Technical-tactical means of achievement: running, stops, turns, jumps, attacking ball holder.

Phase II: Organized defense (6-0 defense system and "man to man")

Technical-tactical means of achievement: maintaining positions, moving to fundamental position, attacking the ball holder, withdrawing to the semicircular area, marking the opponent.

Consistent with this model a set of goals of general education and training factors was established.

GENERAL OBJECTIVES:

strengthening health

ensuring harmonious development

learning motor skills useful in everyday work and school

getting children used to playing organized

develop ball handling skills

learning basic technical elements of handball: fundamental positioning, movement on court holding, catching, passing, dribbling the ball and shooting

introduction to the game of handball (simplified content)

getting children used to team play

OBJECTIVES CONCERNING TRAINING FACTORS:

Physical preparation:

Objective: To provide age-appropriate general physical development and improvement of basic physical qualities with emphasis on speed and skill.

Tasks: developing short travel speed, reaction speed development, skill development.

Technical preparation:

Objective: initiating children in the basic technique for attack and defense in the game of handball using contests, relays, games of movement and preparatory games.

Offense tasks: ball handling, court movement, fundamental positioning, dribbling the ball, shooting.

Defense tasks: basic positioning, moving on the court while in defense, attacking the opponent in possession of the ball and blocking shooting.

Tactical preparation:

Objective: train the children's basic tactical individual and collective skills, passing the ball, shooting, dribbling and marking.

Offense tasks: acquiring basic individual tactical skills regarding passing and shooting the ball, dribbling and marking, transitioning from defense to offense, positioning in attack and learning to pass rapidly in horseshoe style, creating favorable situations to shoot.

Defense tasks: acquiring basic individual tactical skills regarding fundamental positioning, movement in defense, marking and stealing the ball from the opponent, transitioning from offense to defense and positioning in defense on the semicircle, training to attack a ball carrier and immediate return to the semicircle and defending using the arms for blocking shots.

Theoretical preparation:

Objective: learning the rules of the game: traveling, double dribbling, not touching the ball with the foot, not stepping in the semicircular area, marking the goal, substituting, free-throw, 7-meter throw.

Psychological preparation:

Objective: increasing interest and passion for practicing organized sports activities and, in perspective, performance handball.

Tasks: educating children in the spirit of fair play, respecting your opponents, teammates, coaches, referees, building courage, will, encouraging team work and aiding your teammates, developing a sense of responsibility for the actions of you and your teammates and withholding brutal and selfish instincts.

We developed drills and prepared the planning of training for a period of 10 months, after which we repeated the testing through the use of 4 series.

The drills used during the experiment were as following (Rizescu, 2008):

Movement on court – Mt

Mt 1. Get the last: 3 x 2 min, 45 sec break

Mt 2. Trammel: 4 x 4 min, 30 sec break

Mt 3. Number race: 2 x 5 min, 1 min break

Mt 4. Maze: 4 x 4 min, 45 sec break

Mt 5. Chase the ball carrier: 2 x 5 min, 45 sec break

Mt 6. Relay while running forwards and backwards, with starts, turns, stops, jumps, changes of direction: 6 x 30 meters, 45 sec break

Mt 7. Side, forward, backward movement from a basic defense position: 6 x 30 seconds, 30 second break
Ball school – M
M1. Juggling the ball: 4 x 1 min, 30 sec break
M2. Ball over bridge: 5 x 1 min, 30 sec break
M3. Ball under bridge: 5 x 1 min, 30 sec break
M4. Ball in wave: 5 x 1 min, 30 sec break
M5. Traveling ball (through the side): 5 x 1 min, 30 sec break
M6. Relay while transporting balls (of different sizes) 4 x 30 meters, 45 sec break
Catching and passing the ball – P
P1. Defend the castle: 4 x 2 min, 30 sec break
P2. Ball in a star: 2 x 5 min, 1 min break
P3. Ball at captain: 4 x 3 min, 30 sec break
P4. Nation's ball: 2 x 5 min, 1 min break
P5. Pass the yelled number: 4 x 4 min, 30 sec break
P6. Relays with passes in two: 6 x 30 meters, 45 sec break
P7. Passes between 2 and 3 players on the spot: 5 x 2 min, 1 min break
P8. Passes in triangle with stepping up to ball: 6 x 2 min, 45 sec break
P9. Passes in square: 6 x 2 min, 45 sec break
P10. Passes while running between 2-4 players with and without shooting: 8 x 30 meters, 45 sec break
P11. Simple shuttle: 5 x 2 min, 1 min break
P12. Double shuttle with and without shooting: 5 x 3 min, 45 sec break
P13. At the left and right back player level, passing in attack and retreat behind the string: 4 x 2 min, 45 sec break
P14. At the left, right and center back player level, passing in attack and retreat behind the string: 3 x 3 min, 30 sec break
Shooting – Ap
Ap 1. Shoot at target: 2 x 5 min, 30 sec break
Ap 2. The one who is called shoots: 2 x 5 min, 30 sec break
Ap 3. Ball at tower: 2 x 6 min, 1 min break
Ap 4. Knock down ball: 2 x 6 min, 1 min break
Ap 5. Throw at a distance contest (with tennis or oină balls): 4 x 2 min, 30 sec break
Ap 6. Shots on goal on the spot (hit the posts): 3 x 10 shots
Ap 7. Shots on goal divided into 9 rectangles: 3 x 7 shots
Ap 8. Shots on goal preceded by passes from random attack positions: 3 x 10 shots
Ap 9 . Shots on goal preceded by dribbling: 3 x 10 shots
Ap 10. Shots on goal preceded by horseshoe passes: 3 x 5 shots
Ap 11. Jump shots preceded by passes: 3 x 10 shots
Ap 12. 7-meter shots: 4 x 2 shots
Dribbling – D
D1. Ball on trail: 6 x 30 meters, 45 sec break
D2. Number race with dribbling: 2 x 5 min, 30 sec break
D3. Dribbling on the spot with handy or clumsy arm: 4 x 45 sec, 30 sec break
D4. Dribbling while running in a straight line: 6 x 30 meters, 30 sec break
D5. Simple shuttle with dribbling (20-30 meters): 4 x 2 min, 45 sec break
D6. Dribbling through 6 cones with and without execution: 2 x 8 executions, 45 sec break
D7. Relay with dribbling, groups of 4 players: 6 x 30 meters, 30 sec break
D8. Dribbling while running for 15-20 meters followed by pass or shot: 3 x 7 executions, 45 sec break
Marking and unmarking – MD
MD1. Tag while crouching: 3 x 2 min, 30 sec break
MD2. Catch the shadow: 6 x 30 sec, 30 sec break
MD3. "In mirror" moving: 6 x 30 sec, 30 sec break
MD4. Crabs and shrimp: 6 x 30 sec, 30 sec break
MD5. Who holds the ball longer: 4 x 3 min, 1 min break
MD6. 2-on-2 game, half court: 4 x 2 min, 1 min break
MD7. 3-on-3 game, half court: 4 x 3 min, 1 min break
MD8. Game with "man on man" coverage, whole court: 4 x 3 min, 2 min break
Attacking the ball carrier – Aa
Aa 1. "In mirror" moving in couples: 4 x 40 sec, 20 sec break
Aa 2. From a basic defender position in couples, touch teammate's shoulders: 4 x 45 sec, 30 sec break
Aa 3. Moving with added step on the semicircle, with attacking the centre, left and right backs and touching cones: 6 executions, 30 sec break
Aa 4. In couples, attacker on the 9-meter line, defender at the 6-meter line, the defender attacks the opponent followed by an oblique retreat: 3 x 10 executions and after every execution, the roles are reversed
Aa 5. School game 3-on-3, 4-on-4, 5-on-5 on half court: 3 x 3 min, 1 min break
Collective counter-attack – Ca
Ca 1. Double shuttle in groups of 3-4 players: 4 x 4 min, 45 sec break
Ca 2. Passing while running between 2-4 attackers with 1-3 defenders (passive or semi-active) with or without shooting: 4 x 4 min, 1 min break
Ca 3. Passing while running between 2-4 attackers with 1-3 active defenders in the opponents side of court, with or without shooting: 4 x 4 min, 1 min break
Ca 4. 3-on-3 or 4-on-4 game without throw-off: 4 x 3 min, 2 min break
Collective retreat – Re
Re 1. In couples, one member dribbles the ball, the other retreats on the first member's direction: 6 x 30 meters, 30 sec break

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Re 2. Double shuttle, in groups of 3-4 players with retreat: 4 x 3 min, 1 min break
Re 3. One left back and one right back execute 2-3 passes finalize with a shot followed by a retreat to the other semicircle: 15 executions, 45 sec break
Re 4. 3-on-3 or 4-on-4 game without throw-off: 4 x 3 min, 2 min break
Re 5. In groups of 3-4 attackers, pass the ball in successive attack finalized with shot followed by retreat: 4 x 2 min, 1 min break
Pivot attack system – At
At 1. From attacking position with a pivot, pass the ball in successive attack from one wing to the other and reverse: 4 x 2 min, 1 min break
At 2. From attacking position with a pivot, pass the ball in successive attack every two players (wing-centre back-wing-pivot-left back-right back): 4 x 3 min, 1 min break
At 3. From attacking position with a pivot, pass the ball in successive attack with the engagement of the pivot by the backs: 4 x 3 min, 1 min break
At 4. From attacking position with a pivot, pass the ball in successive attack while changing the direction of pass with semi-active defenders: 4 x 3 min, 1 min break
"Man on man" coverage system – Oo
Oo 1. "In mirror" movement, in couples: 4 x 2 min, 45 sec break
Oo 2. "Who holds the ball longer" game with teams of 4-6 players: 3 x 2-4 min, 1 min break
Oo 3. School game on half court, in groups of 4-6 players: 3 x 5 min, 2 min break
Zone coverage "6-0" system – Az
Az 1. Three defenders in the center area that are running after the ball which is being passed between the three backs: 3 x 2 min of work for every defender, 1 min break
Az 2. Four defenders and four attackers (left and right backs and left and right wings), the attackers pass the ball and the defenders, while holding hands, try to always be on the direction of the ball: 3 x 2 min of work as a defender, 1 min break
Az 3. Four defenders and five attackers, the attackers pass the ball, the defenders attack the ball carrier and retreat obliquely in the direction of passing of the ball: 3 x 2 min of work as defender, 1 min break.

The research demonstrates that using planning adequate to objectives and age, practiced through selected and standardized drills, it will significantly improve the level of specific training of children who are part of groups of handball beginners.

Results

The results obtained by the subjects in the two tests are shown in Table 1.

Table 1. Results at specific drills (n = 20 girls)

Variables		M± DS	CV%	"t"	p
20-meter dribble in a straight line (sec)	TI	7,58±0.848	11,187	11,711	<0,0005
	TF	7,04±0,775	11,009		
Movement in triangle 2 courses (sec)	TI	25,85±1,387	5,366	26,163	<0,0005
	TF	19,20±1,105	5,755		
Throwing ball with momentum (m)	TI	14,1±1,997	14,163	10,782	<0,0005
	TF	16,95±2,305	13,599		
5 precision shots on goal	TI	9,35±2,907	31,091	9,2	<0,0005
	TF	11,8±2,397	20,314		

Statistically significant at p<0,0005
M = Average; DS = Standard deviation; CV = Coefficient of variation; "t" = Test student; p = value threshold; n = number of students.

Discussion

The results realized by the subjects were statistically interpreted and the significant aspects of every drill were highlighted:
20-meter dribbling in a straight line - average initial testing was 7.58 sec. At the final testing, performances improved, the average being 7.04 sec. Standard deviation in initial testing was 0.848 and in the final testing 0.775, values which indicate a small dispersion in obtained results. The coefficient of variation in initial testing was 11.187%, while in the final testing it indicated 11.009% showing us the average homogeneity of the group involved in the research. The value of "t" was 11.711, statistically significant at p<0.0005.
Moving in triangle (2 courses) – the average in initial testing was 25.85 sec, while in the final one 19.20 sec. Standard deviation with the obtained results show a small dispersion in them, and the coefficient of variation reveals both in initial and final testing a large

homogeneity of the group. The difference between the average of initial and final testing can be explained by the fact that the drill also implies learning the technique of movement during training. The value of "t" is 26.163, statistically significant at $p<0.0005$.

Throwing the ball with momentum – the average in initial testing was 14.10 meters and in the final testing 16.95 meters, which registers an increase of final results over initial ones by 2.85 meters. Standard deviation in initial testing had a value of ±2.305, while in final testing is indicated ±2.907, which show us a small dispersion in the results. The value of "t" is significant and falls under the value threshold of $p<0.0005$.

5 precision shots on goal – initial testing average was 9.35 points and the final testing average was 11.80 points. Due to systematic preparation of individual performances, some girls performances grew very much, while other very little. This fact is revealed by the results which show in initial testing a lack of homogeneity and in the final test an average homogeneity. The value of "t" was 9.20 which is statistically significant at $p<0.0005$.

A study at the junior I, girls specialized goalkeeper, for a period of four months showed the following results from the TI enthusiastically throwing 32.66 m and 33.66 m, and moving in a triangle (three tracks) from TI 18.96 sec and 18.70 sec to TF (Tugurlan, D. and others, 2011). If the throwing improvement of 20% in both studies, the movement in a triangle improvement is 25% in our study compared with 2% in the study noted.

The obtained values were compared with data from specialty literature (Kunst-Ghermănescu, 1983), observing that they are above the minimal models under the Romanian Handball Federation (1986). Also, they are within the values obtained in other research conducted at this level (Negulescu, 1997; Ghervan, 2003; Rizescu, 2008).

Conclusions

Harmonizing objectives, tasks and technical and tactical methods of training with the requirements of a game model adapted to the peculiarities of children's ages based on a streamlined content of educational training process, contributes to increasing the efficiency of initial selection.

This can lead to an objective selection, resulting in the creation of groups of homogeneous and potentially somatic, motor and superior technical and tactical beginners.

Creating at the beginner's level a plan based on a simplified game model which is implemented by judiciously selected, standardized and verified means appropriate to the proposed objectives and to 8 to 10-year-old children, can lead to rapid progress in training which give certainty of future valuable performances.

Choosing a simplified minimal game model and drills suitable to achieve the set objectives and accessible to 8 to 10-year-old children using many games, relays, contests, structural exercises close to the actual game, we can observe that athletes achieve faster progress which give certainty of future performances.

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