

EXPERIMENT ON IMPROVING THE MOBILITY, TO THE 12-YEAR OLD FOOTBALLERS

PLOESTEANU CONSTANTIN

“Lower Danube” University of Galati, Romania

Abstract

A low mobility of the coxofemoral joint and implicitly of the opening angle of the legs hampers the execution of certain technical processes which occur frequently during a game. In order to have an on time and correct training, we have to take into account that mobility develops best between ages 8 and 12.

It can be accepted that there is some interference between the rigidity of the coxofemoral joint and the execution procedures. This scientific approach is considering the implementation of certain motor actions to promote the increase in the mobility of the coxofemoral joint.

Key words: *training, mobility, efficiency.*

Introduction

The harmonious and correct physical development, which is the basic objective of school physical education and sports, approaches the child and the young person at ages when favourable influences on the growth and development of the body can be exerted, in both functional and somatic fields. The finding that a child's body cannot be compared with that of an adult is a fact acknowledged by all expertis in the field of physical education and sports. The problem itself is of particular importance, since the beginning of the sporting activity in children coincides in time with the formation of the biological processes of the body, physical education and sports acting at stages of major importance for the growth, development and maturation of the body, of its organs, functions and systems, which are subject to continuous improvement and accomplishment. A young body "asks" during its development to be stimulated in a multilateral manner, as only in this way can it ensure good health, on the one hand, but also on the basis of future sports performance, on the other hand. Proportionality and harmony of the body shapes, a proper and aesthetic posture, high functional indices, basic motor qualities, achieved equally, the interest for doing physical exercises, are the main elements of a multilateral training.

The means and methods, the laws governing the learning of movements and the cultivation of physical qualities offers great possibilities to leaven efficiently the physical development. In any sports training session, in order to have a fully achieved objective regarding the multilateral development of pupils it is required to use those means and methods that can ensure a harmonious development of all the physical qualities and can create a rich stock of motor skills and abilities, Dragnea, A., Teodorescu, S.M., 2002, and this the purpose of our research. We had in mind, given the fact that the group is being formed, besides the time framework, equal for all kinds of lessons, the space framework, namely the content, structure, dynamics and methodology which are specific, like the application of knowledge, skills and habits learned, and by form we refer to the way of organizing and the sequence of events in a lesson where the content is being stored and developed. (Alexe, N., 1993).

The use of diversified training but with goals to fulfill, the multilateral physical training and the polyvalent athletic preparation, stimulate the body. The concern of initiation and practice of the technical and physical elements from various tests contributes to the formation of specific motor skills, to the formation and development of basic motor skills, to the formation of moral and ethical qualities, necessary to any young athlete, be it in development, and to his integration into the competitive training spirit.

Purpose:

- developing the mobility of the coxofemoral joint in order to improve certain technical executions in the soccer game.

Tasks

- introduce and apply the research methods;

- monitor and record the evolution of performances;
- process, interpret and foreground the results.

Hypotheses of the research:

- we suppose the improvement of the mobility of the coxofemoral joint has an influence over certain technical executions in the soccer game;
- the extent to which the proposed mobility program contributes to increasing the execution of the technical procedures.

Tests and rules

- mobility on the gym bench. From the sitting position on the gym bench, bend the trunk with outstretched arms, we measure in centimeters how far the palms exceed the outstretched arms.
- kicking from the side a hanging bag. The player is placed on the side and kicks in a hung bag (boxing bag). On the player's shoe there is powdered chalk recording the spot where he hit. The two types of executions are tested at the beginning and at the end. The final test records how high the bag can be hit.
- Idem, kicking the ball. The ball is placed on a pedestal at a distance from the ground, the same with the one used for hitting the bag. The player stands in front of the gate at a distance of 12 metres and kicks the ball into the empty gate. The gate is 2 meters on 1.50 meters wide. We measure how many balls are successful.

Materials and Methods

Subjects:

- Experimental group: Sports High School of Galați.
- Control group: Oțelul Galați.

Place: swimming pool; gym.

Duration of the research: 10th of August 2015 – 10th of November 2015.

Experimental Program

In the experimental curriculum designed the experimental group trains twice a week, besides the specific programme planning, workouts/training being scheduled when there is no workout planned.

Workout 1, duration 50 minutes, gym

1. Set of exercises to prepare the body for effort, joint mobility, stretching, 15 minutes. Joint biomechanics ensure movements in all directions through three main areas: flexions and extensions; moves of abduction and adduction, rotation, and circumduction.
2. Throwing a medicine ball weighing 1 kg. and catching it, 10 minutes.
3. Learning the technique of easy crossing / step over the fences of the athletics means, duration 10 minutes;
4. Mobility on the gym bench. The athlete stands on the gym bench having a ½ kg weight in each hand, and executes bendings with consecutive bows followed by returns, duration - 10 minutes.
5. Return after training, 5 minutes.

Workout 2, duration 40 minutes, swimming pool

1. Getting used to the water, 10 minutes.
2. Water gymnastics, 20 minutes. Sets of exercises for the coxofemoral joint. The exercises carried out in the swimming pool have a minimum impact, so they do not harm wrists/joints. Water improves circulation, removes weight from muscles and joints, increasing their strength at the same time.
3. Return, free program for 5 minutes. After each workout, regardless of its type, it is recommended to take a hot shower that will have a therapeutic action on the muscles.

Results of the research

The study and demonstration of a sports process with the 12 year-olds to identify a type of training for coxofemoral and technique mobility, implicitly. The determination of the content of the means, the methods and forms of multilateral training are oriented towards multilateral training.

The research results provide a presentation of the main indicators of the assessment system for the level of physical and technical training specific to 12 year-old students practising soccer.

Results of the initial and final tests of the experimental group

Table 1.

Indicators	Tests	Mobility on the gym bench (cm)	Mobility on the gym bench (cm)	Kicking the ball (no.of kicks)	Kicking the ball (no of kicks)
		IT	FT	IT	FT
\bar{X}		2.8	7.8	4.4	8.4
Sd		4.01	0.19	1.11	0.27
Cv		2.7	1.88	2.74	2.11

Results of the initial and final tests of the control group

Table 2

Indicators	Tests	Mobility on the gym bench (cm)	Mobility on the gym bench (cm)	Kicking the ball (no.of kicks)	Kicking the ball (no of kicks)
		IT	FT	IT	FT
\bar{X}		2.8	2.9	4.6	5.4
Sd		7.74	12.13	3.78	2.11
Cv		5.41	6.08	6.5	9.3

Diagram of the final results

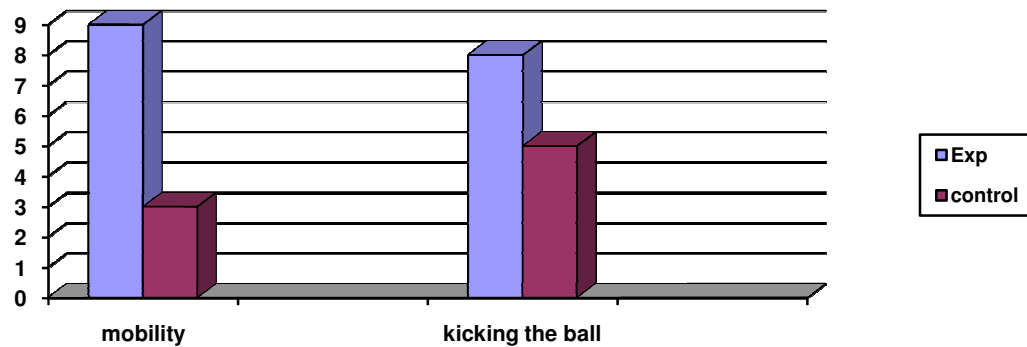


Fig.1. Graphical presentation of the final results of the groups included in the research

Comparisons made within groups in terms of physical and technical performance emphasized significant differences between the initial and the final testing, as follows:

At the mobility test, the final average level of 7.8 cm for the experimental group is higher than the average level in the control group, which is 2.9 cm, the progress of the experimental group being of 4.9 cm. The coefficient of variation which is 1.88% for the experimental group is lower than the final coefficient of variation, 6.08% for the control group, which shows an increase in the experimental group homogeneity.

La proba de lovire a mingei cu piciorul de pe un suport static, nivelul mediu final de 8,4 reușite la grupa experiment este mai mare față de nivelul mediu final la grupa martor, care este de 5,4 reușite. Coeficientul de variație final de 2,11 % la grupa experiment este mai mic față de coeficientul de variație final de 9,3 % la grupa martor, ceea ce demonstrează o creștere a omogenității grupei experimentale.

At the kicking test of the ball from a static stand, the final average level of 8.4 successful kicks for the experimental group is higher compared to the final average level in the control group, which is 5.4. The coefficient of variation of 2.11% for the experimental group is lower than the final coefficient of variation of 9.3% for the control group, which shows an increase in the experimental group homogeneity.

Conclusions

Additional training is required to ensure diversification and filling of motor actions, which develop at certain ages.

It takes some learning activities of compensating movements, as it has been shown that the mobility means used have improved the process of tapping the ball.

In this experiment we have noticed the motivation of the athletes in adapting to the tasks-integration and problem solving.

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STUDY ON THE TREATMENT SCOLIOSIS PHYSIOTHERAPY, MASSAGE AND REFLEXOLOGY

SAVA LUCICA

“Dunărea de Jos” University of Galati

Summary: Given the difficult socio-economic situation and reform interminable education directly affects discipline and physical education (as a limited number of compulsory hours laid down in the Common Core), the paper aims to warn on the negative aspects that the regime of life current youth (in a very high percentage required) has on their current physical health, with clear repercussions on yield professional future.

Keywords: exercise, physical exercise, physical therapy, scoliosis