

THE PHYSICAL PREPARATION AND THE EFFICACY OF THE PREPARATION PROGRAMMES AT THE NATIONAL FOOTBALL GROUP-JUNIORS

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Abstract

Purpose. The preparations especially the ones long term contribute to obtaining a good physical condition, to the improvement of the techniques and to compose a tactical behavior more inventive.

The improvement of the physical-technical-tactical through changing the trainings in centralized systems of preparing at the national group level having as aim the improvement of the sport performance of the football games at the level of juniors.

Methods. The groups. The analyzed subjects were the footballers of the national junior groups: the footballers of the National Group UEFA 85, which forms the experimental group and which is being influenced, on the shaping physical-technical-tactical "total training" during an yearly cycle training and the footballers of the National Group UEFA 86 as a controlling group, which functioned accordingly with the imposed requirements imposed by the available programmer from Romania, at that age.

The centralizing table includes the individual values at each parameter taken into consideration the analyze, the group environments, superior and inferior and the variation inside the tested group.

Results. *The MGM test.* If we compare the initial and the final results of the biometrical parameters (from the first table) we will consider that during the physical test "MGM" of the experimental group, at all the parameters (Unitarian force H for flying, Cve and Cvs) registered superior parameters comparing with the control group.

Inside the biometrical test "The equilibrium" the average level of the ray vector R1,R2, R3 and R4 inside the experimental team registers superior values comparing to the witness group.

Conclusions. The implementation of the preparation methodology which had as base the sharpening of the physico-technical-tactical preparation during 60-70 days from the year when the sportsmen were available for the national team has positively influenced the level of the physical preparation and the biometrical qualities first of all (this derives from the statistical manufacture of the values control checking of the physical indicators)

Key words: football, centralized checking, experiment, tests, physical preparation

Introduction

Purpose

In the modern vision regarding the tactical preparation of the junior footballers there is the training and exercising the three main elements of the game: obtaining a good physical condition, preparation and improvement of the technique, the composition an ingenious smart behaviour.

One supposed that the improvement of the technical preparation of the players will contribute to the improvement of the sportive performance of the football teams at the junior group level.

Material and methods

a) *Groups* The analysed subjects were the footballers of the national junior groups: the footballers of the National Group UEFA 85, which constitute the experimental group and which is being influenced and also the sharpening of the physical-technical-tactical preparation "total training" (M. Ionescu 1976; F .Motroc, A. Motroc 1999; V.I. Ionescu,C. Dinu 1982) during a certain training period and the footballers of the National Group 86 as a contro, group which activated accordingly with the requirements made by the available programmes concerning football, at that age.

b) *Experimental protocol* The action place: the football fields of the FRF- National Centre of preparation from the Mogosoia complex, during 2007-2008.

c) *Tests: equilibrium test, CNM test, MGM test*

1. The equilibrium test

It is composed of four parts, each of it lasting 20 seconds, the difference between them being the action place.

The level of control capacity of the biopadal position is being stressed, the proper requirement is as small as possible variation of the projection of the charge center on the surface of the equilibrium platform. This variation can be viewed on the screen of the computer through a indicator light spot which represent the successive positions of the charge centre on the surface of the platform. The stability level is being appreciated by the vectorian ray.

2. *The control test neuromuscular (TCNM)*

One evaluates the capacity of solving movement tasks requiring a deep control of the used force, under the circumstances when there are no problems from an energetical point of view. It includes two parts which are different by the speed conditions, the subject being able to watch on the screen the way the task is being accomplished. The appreciation of the level of accomplishing the task. The supervision of the level of accomplishing the task is being done from 1 to 10

3. *The MGM (MIRON GEORGESCU MODIFIED, Hilerin, J.P., 1999)*

It has as an aim fixing the main elements of the motilitical energetical and control at the level of the triple extension, in a great force-speed speed. It includes three series of 15 jugglings on both feet, on the right and on the left foot. Both the energetical – the level of the force-speed qualities aspects are being aimed as the control aspects, through certain parametrics.

Energetical parameters

Pu- the unitarian average power (W/kg)

H-flying – the average flying height (m)

Vrep-the speed parameter (repetition speed) which actually represent the average time when touching the ground for propulsion (ms)

A-(D+S)- the difference between the value of the power on both feet and the sum of the values on both the right and the left, offers information about the equilibrium between the force part and the speed one; the values between 0 and 1 signify a disequilibrium meaning the lack of force, and the low ones lower than -1 a dezequilibrium concerning the lack of speed.

Control parameters

Results

Table 1: The comparative analyse of biometrical technical tests (Firiteanu V.D.N., 2009)
The MGM test

		PARAMETERS																
		Unitarian powers (W/kg)					H zbor (m)			V rep, (s)			C ve (%)			C vs (%)		
		A	D	S	D-S	A-(D+S)	A	D	S	A	D	S	A	D	S	A	D	S
Medie X	The final experimental group	4,92	3,21	3,14	0,07	-1,43	0,37	0,24	0,23	0,190	0,29	0,29	2,79	3,73	4,40	7,17	5,84	5,50
	The final witness group	5,08	3,11	3,20	0,21	1,236	0,38	0,22	0,23	0,173	0,254	0,272	2,44	4,69	4,21	5,49	5,00	4,76
Abaterea Standard Σ	The final experimental group	0,42	0,36	0,40	0,31	0,38	0,04	0,03	0,04	0,03	0,03	0,03	1,77	1,55	2,35	3,44	2,93	2,08
	The final witness group	0,33	0,31	0,33	0,16	0,35	0,03	0,03	0,03	0,02	0,04	0,03	1,22	2,16	1,59	1,69	1,82	1,68
The coefficient of variation Cv (%)	The final experimental group	8,65	11,16	12,84	86,5	26,79	10,52	13,71	16,06	17,97	9,49	11,08	63,22	41,58	53,52	48,00	50,23	37,79
	The final witness group	6,48	9,89	10,17	76,5	28,60	8,89	12,71	13,14	11,65	16,29	12,26	49,92	45,98	37,85	30,68	36,46	35,25

Table 2: The equilibrium test (Firiteanu V.D. N, 2009)

		The equilibrium test				The CNM test	
		AVERAGE VECTORIAL RAYS (mm)				NOTES	
		Rv 1	Rv 2	Rv 3	Rv 4	N (k 400)	N (k 150)
MEAN X	The final experimental group	1,95	2,17	1,62	2,58	8,28	8,03
	The final witness group	1,72	1,80	1,33	2,20	7,99	7,95
THE STANDARD EXCEPTION Σ	The final experimental group	0,73	0,97	0,53	0,72	0,50	0,73
	The final witness group	0,55	0,55	0,39	0,76	1,05	0,62
Coeficient of variation Cv(%)	The final experimental group	37,37	44,89	32,36	27,77	6,06	9,10
	The final witness group	32,04	30,83	29,62	34,48	13,20	7,83

C.v.e- the coefficient of energetical variation (%); very low values represent an advanced automatization degree; in case of some sports like the football, which is not recommended a higher automatization the correct values can be checked between 2,5-3

Cvs-coefficient of structure variability (%)

With these parameters we could appreciate both the capacity of controlling the energetical resources in the active phase of the movement, gradually the anticipation level, like the structural preparation of the muscle in the phases before the contact (with the ground, with the ball, with the enemy, with different objects)

d) *The statistical manufacture* In order to centralize the information and establishing they used some mathematical analyse methods, using the computer programmes issued inside INCS (J.P. Hillerin, 1999)

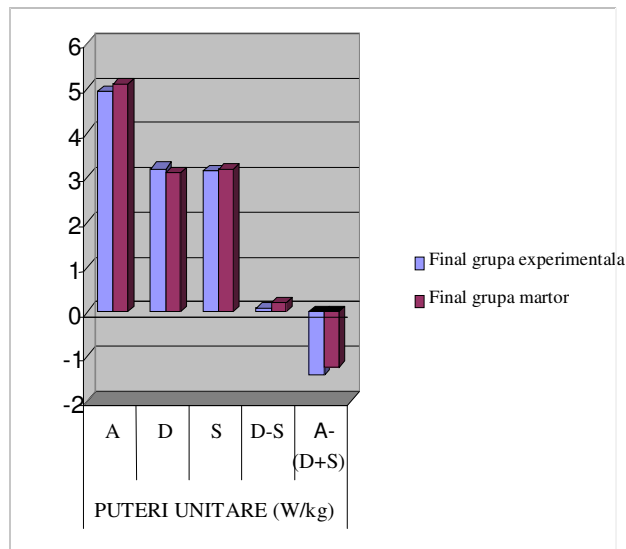
The centralizing table includes individual values at each taken into consideration parameter in analyse, the group environments, superior and inferior limits and the variability inside the tested group.

The interpretation of the information

The MGM test. If we compare the the initial and the final results of the biometrical parameters (from the first table) we could consider that inside the physical test “MGM” of the experimental group, at all the parameters (unit force, H for flying , Cve and Cvs) marked superior parameters comparing to the group control. This thing happened in the case of jumps on both feet like in the case of jumps fist on left and then on right. The coefficient of variation evaluated between

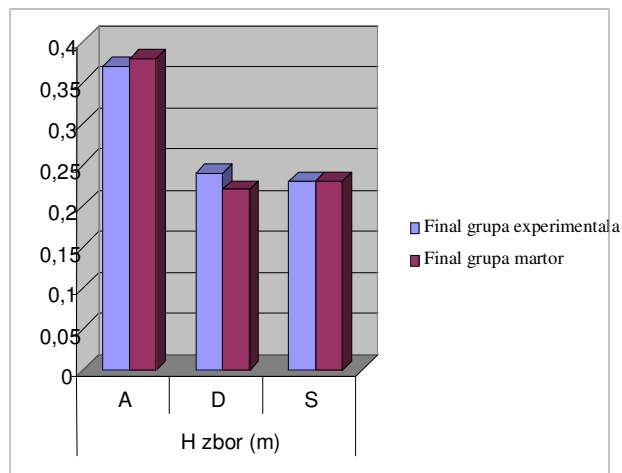
8,65 and 8,65 in the case of experimental group, and in the case of witness group between 6,48 and 76, 5 which shows that in most of the cases there is a homogenization superior to the experimental group towards the control group.

Inside the biometric test “Equilibrium” the average level of the vector rays R1, R2, R3 and R4 inside the experimental team registers values superior to the witness group.



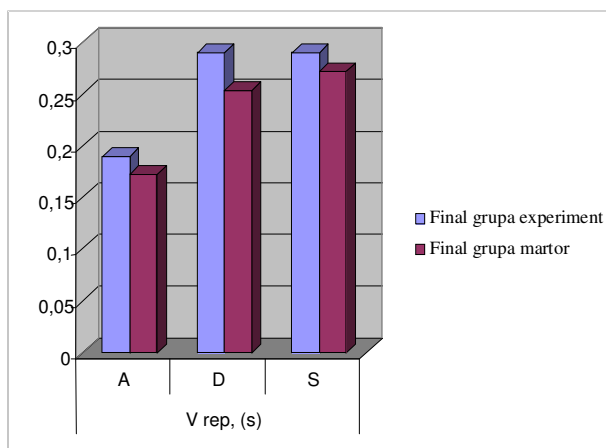
The first picture

The graphic description of the results at the test- MGM-unit force

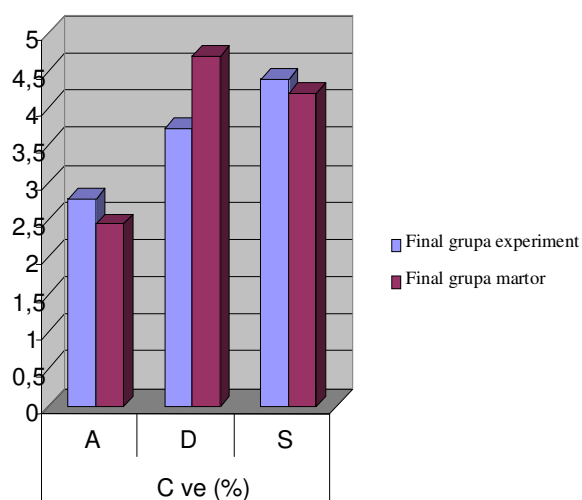


The second picture

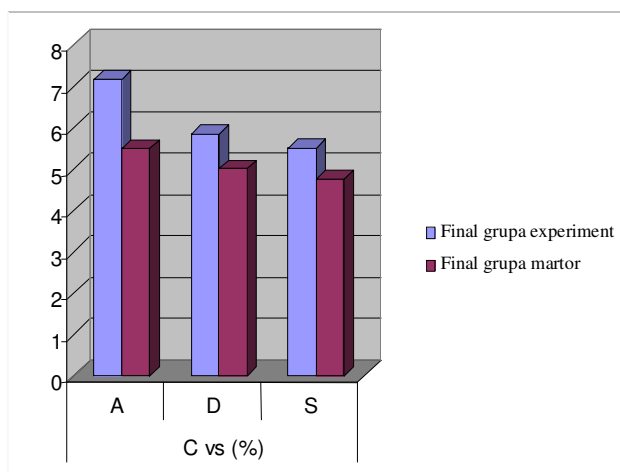
The graphic description of the results at MGM test- H for flying



The third picture
The graphic description of the results at MGM test- repetition velocity



The forth picture
The graphic representation of the results at the MGM test-Cve



The fifth picture The graphic representation of the results of the MGM test – CVs

Concerning the biometric test “Equilibrium” the level of the vector rays R1, R2, R3, R4 inside the experimental team registers superior values to the control group.

Discussion and conclusion. Significant differences from a statistical point of view between the average final levels and the average initial levels of all the physical tests which acted under the circumstances

of training inside the experimental group, which expresses the increase of the efficiency of the application while the training, of the proposed method, of the planning and of game inside The National Group UEFA 85, so an increase of the effects as a consequence of the supposed efforts made both by the coach and by the junior footballers, too.

The implementation of the preparation methodology had as support the shape of the physical-technical-tactical preparation during the 60-70 days from the yearly cycle when the sportsmen were available for the national team which positively influenced first of all the level of the physical preparation and of the biometric qualities (as this results from the statistical manufacture of the values of the control tests of the physical indicators).

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