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**Faculty of Movement, Sports, and Health
Sciences**



SCIENTIFIC STUDIES AND RESEARCH OF HUMAN PERFORMANCE WITHIN THE EUROPEAN EDUCATION SYSTEM

This publication contains scientific studies based on various research conducted in the field of physical activities. It presents to the readers the preoccupations of human performance specialists, disseminating the results of their work.

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SPECIALISTS' OPINIONS ON THE INFLUENCE OF EFFORT PARAMETERS IN 11-12 YEARS OLD JUNIOR FEMALE GYMNASTS TRAINING

Mariana Cîmpeanu¹

Key words: questionnaire, effort, artistic gymnastics, planning, training model, opinions

Abstract

This paper aims to highlight specialists' opinions on the influence of effort parameters in the training of junior female gymnasts aged 11 to 12. For this we have considered important that the questionnaire-type survey method applied to specialist coaches- teachers and female referees in women's artistic gymnastics field would emphasize the key indicators and parameters of effort that influence the training of junior gymnasts 11-12 years old.

This scientific approach has led to conducting a survey applied to a total of 30 coaches-teachers and referees, with the following level of education: 2 teachers with Basic Teacher's Certification and 4 teachers with didactical qualification of first level, 4 merited coaches, 7 coaches of class I, 4 of class II and 9 of class III, out of which 4 international referees and 13 national referees. The specialists' age ranged from 27 to 70 years, with an experience in the field of 2 to 45 years. In addition to answering the questions of the questionnaire, many coaches-teachers carried on a conversation by means of this interview, giving explanations to some questions, which were found slightly more complex (difficult) in the preparation of the gymnasts at this level.

The results of the questionnaire were tabulated per questions distributed horizontally, highlighting the weight paid in %, the number of answers and the ratio % of the responses to each question.

The application of the questionnaire type survey method to specialist coaches-teachers and to referees from women's artistic gymnastics field revealed the main indicators and parameters of effort that influence the training of junior gymnasts aged 11 to 12. And choosing the most frequent answers to each question of the questionnaire led to the development of a training model in terms of effort parameters in junior female gymnasts' training.

Introduction

Artistic gymnastics is an area with a spectacular evolution, which has made remarkable progresses over the years, enjoying success and popularity before a very large audience. Specialists say and the experience showed that a systematic training in gymnastics can be approached starting from 5-6 years old. Hence you can observe the orientation towards better basic training, taking into account the

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extremely rich and varied technical content and the multitude of motor skills needed to assimilate these movements (V. Grigore, 2001)

The new modifications of the Code of Points, addressing the difficulty of technical elements, the granting of bonuses for the connections on each apparatus and last, but not least, the specific requirements of each apparatus will determine new guidelines and tendencies in the training on competition apparatus (V. Potop, 2008).

Planning is the most important instrument available for the coach to direct a well organized training program, eliminating the hazard and the approach of the training without perspectives. A well-structured plan gives a precise direction and confers a well determined purpose to performance activity (G. Niculescu, 2003).

The multi-annual training system includes the establishment of objectives and tasks, also the determination of means, methods and the dosing of effort along some intervals of time. Knowing the major importance of the objectives underlying the elaboration and organization of the entire training process, it is necessary to define them with maximum clarity and to ensure a systematic control by relating permanently the immediate objectives to the short term ones (micro-cycles), to the average term ones (mezzo-cycles) and to the long ones (macro-cycles and Olympic cycles) (S. Teodorescu, 2009)

Sports training is a process with a specific duration, designed as a functional-motor system meant to achieve a performance-oriented conduct during competition. Considered in this way, the sports training is formed of loads that – by their volume, intensity, density, complexity, specificity and type - lead to functional adaptations or to the achievement of coordinative and technico-tactical objectives, in which the systems submitted to the training are required to reach the pathological limit (A. Dragnea; S. Mate Teodorescu, 2002).

In any activity field, the level of achievements is in direct proportion to the volume, intensity and quality of the efforts made. The principle of big efforts became not only a reality, but also a necessity in modern training, now being widely accepted and applied (P. Dungaciu, 1982).

The training methods in artistic gymnastics regarding volume, intensity, density and the organization of the training place prove that there is a close link and inter-determination between these terms on the one hand and a link between them and the training effectiveness on the other hand (M. Bibire; R. Dumitru, 2001).

In terms of dynamics of training volume and intensity increase, it is recommended to increase the training session duration, the number of training sessions per week and the number of reps, exercises or technical elements per training session, to increase the reps number performed by the athlete with this intensity, etc. (T.O. Bompa, 2002).

Modern practice confirmed us by its results that the increase in effort capacity of the body and the peaking for competition are achieved by a large volume with increasing intensity for a certain period (N. Vieru, 1997).

The purpose of the paper is to highlight the opinions of specialists on the influence of effort parameters in the training of 11-12 years old junior female gymnasts.

Hypotheses

We consider that by applying the questionnaire-type survey method to specialist coaches- teachers and female referees in women's artistic gymnastics field we shall emphasize the key indicators and the parameters of effort that influence the training of junior gymnasts aged 11 to 12.

Also, by choosing the most frequent answers to each question of the questionnaire, we shall be able to develop a training model in terms of effort parameters in junior gymnasts training.

Methods of research

1. Method of bibliographic study.
2. Method of pedagogical observation;
3. Method of questionnaire-type survey and interview.
4. Method of experiment.
5. Statistical-mathematical method.

Study organization and conduct

To highlight the specialists' opinions on the influence of effort parameters in 11-12 years old junior gymnasts' training, we organized a sociologic study applied to coaches-teachers and referees practicing in women's artistic gymnastics field.

In this context a questionnaire has been created, including 14 questions and 130 answers expressed in percentage or electively (JR. Thomas; JK. Nelson, 1996).

The questionnaire has been applied to a total number of 30 coaches-teachers and referees with the following level of education: 2 teachers with Basic Teacher's Certification and 4 teachers with didactical qualification of first level, 4 merited coaches, 7 coaches of class I, 4 of class II and 9 of class III, out of which 4 international referees and 13 national referees.

The specialists' age ranged from 27 to 70 years, with an experience in the field of 2 to 45 years. In addition to answering the questions of the questionnaire, many coaches-teachers carried on a conversation by this interview, giving explanations to some questions, which were found slightly more complex (difficult) in the preparation of the gymnasts at this level.

Results

The results of the questionnaire have been tabulated per questions horizontally distributed, highlighting the weight paid in %, the number of answers and the % ratio of the answers to each question.

Table no.1. Results of questionnaire answers – MODEL of training

Question		Indicators of assessment	Answers			
1			Yes	No	Other opinions	
		No. of answers	21	7	2	
		Ratio %	70%	23.3%	6.7%	
2	Basic stage	Training factors	PFG	PFS	PTh	PA
		Weight % answers	20%	10%	50%	20%
		No. of answers	9	10	13	10
		Ratio %	30%	33.3%	43.3%	33.3
	Pre-competitive stage	Training factors	PFG	PFS	PTh	PA
		Weight % answers	10%	30%	50%	10%
		No. of answers	16	14	10	16

		Ratio %	53.4	46.7%	33.3%	53.4%								
	Competitive period	Training factors	PFG	PFS	PTh	PA								
		Weight % answers.	10%	20%	60%	10%								
		No. of answers	16	12	8	12								
		Ratio %	53.4%	40%	26.7%	40%								
3	Characteristics	Effort parameters	Volume				Intensity							
		Basic stage	Weight % answers	70%	30%									
		No. of answers	13	13										
	Pre-competitive stage	Ratio %	43.3%	43.3%										
		Weight % answers	50%	50%										
		No. of answers	12	12										
	Competitive period	Ratio %	40%	40%										
		Weight % answers	40%	60%										
		No. of answers	11	11										
		Ratio %	36.7%	36.7%										
4	Answers	a	b	c	d									
	No. of answers	-	12	17	1									
	Ratio %	-	40%	56.7%	3.3%									
5	Answers	a	b	c	d	e								
	No. of answers	2	15	10	9	9								
	Ratio %	6.7%	50%	33.3%	30%	30%								
6	Answers	a	b	c	d									
	No. of answers	3	12	6	8									
	Ratio %	10%	40%	20%	26.7%									
7		Training session 1						Training session 2						
	Days	L	M	Mi	J	V	S	L	M	Mi	J	V	S	
Artistry	Order no. app.	1	1	1	1	1	-	-	-	-	-	-	-	
	Answers no.	22	14	17	16	22	15	23	20	25	24	21	25	
	Ratio %	73.3%	46.7%	56.7%	53.3%	73.3%	50%	76.7%	66.7%	83.3%	80%	70%	83.3%	
Vaults	Order no. app.	2	-	2	-	2	1	-	-	-	-	-	-	
	Answers no.	19	16	13	13	15	10	11	23	19	22	20	27	
	Ratio %	63.3%	53.3%	43.3%	43.3%	53.3%	33.3%	36.7%	76.7%	63.3%	73.3%	66.7%	90%	
Uneven bars	Order no. app.	3	2	3	3	3	3	1	2	-	-	2	-	
	Answers no.	16	18	12	15	14	11	11	14	11	16	10	23	
	Ratio %	53.3%	60%	40%	50%	46.7%	36.7%	36.7%	46.7%	36.7%	53.3%	33.3%	76.7%	
Beam	Order no. app.	4	3	3	4	1	3	2	3	-	-	3	-	
	Answers no.	12	12	11	9	9	10	8	11	12	17	9	21	
	Ratio %	40%	40%	36.7%	30%	30%	33.3%	26.7%	33.3%	40%	56.7%	30%	70%	
Floor	Order no. app.	-	-	3	-	-	4	2	-	-	-	-	4	
	Answers no.	21	7	11	16	16	9	11	13	12	11	9	13	
	Ratio %	70%	23.3%	36.7%	53.3%	53.3%	30%	36.7%	43.3%	40%	36.7%	30%	43.3%	
Phys.train	Order no. app.	-	-	-	-	5	5	4	4	4	-	4	-	
	Answers no.	13	15	15	15	8	13	13	16	9	9	11	21	
	Ratio %	43.3%	50%	50%	50%	26.7%	43.3%	43.3%	53.3%	30%	30%	36.7%	70%	
8*	Answers	a	b	c	d									
	No. of answers	23	17	9	9									
	Ratio %	76.7%	56.7%	30%	30%									
9	Answers	a	b	c										
	No. of answers	30	-	-										
	Ratio %	100%												
10	Answers	a	b	c	d									
	No. of answers	22	2	9	8									

	Ratio %	73.3%	6.7%	30%	26.7%	
11	Answers	a	b	s	d	
	No. of answers	28	2	-	-	
	Ratio %	93.3%	6.7%	-	-	
12*	Answers	a	b	c	d	
	No. of answers	9	23	2	2	
	Ratio %	30%	76.7%	6.7%	6.7%	
13	Answers	a	b	c		
	No. of answers	4	10	16		
	Ratio %	13.3%	33.3%	53.3%		
14	Answers	a	b	c		
	No. of answers	23	3	4		
	Ratio%	76.7%	10%	13.3%		

Legend: PFG – General physical training; PFS –Specific physical training; PTh –Technical training; PA – Artistic training; L-Monday, M-Tuesday; Mi- Wednesday; J- Thursday; V-Friday; S-Saturday; Order no. app.- order number per apparatus; - pause;

Note: * answers with several variants have been given to questions no. 8 and 12, while Σ % goes beyond 100%.

Discussions

Regarding the first question: „Do you think that the influence of effort parameters on the training of 11-12 years old female gymnasts of our country is satisfactory?” we found out that 70% of the surveyed persons believe that these parameters influence the level of training, while 23.3% say that they do not affect the level of training and the other 6.7% have other views. Specialists’ responses demonstrate that the influence of effort parameters on the level of junior gymnasts in Romania is satisfactory.

As for the second question: „What is the weight of training factors in the planning of training means?” it appears that during the preparatory period, basic stage, the weight is 20% for PFG, 10% for PFS, 50% for PTh and 20% for PA, in the pre-competitive stage the weight is 10% for PFG, 30% for PFS, 50% for PTh and 10% for PA while during the competitive period, the weight is 10% for PFG, 20% for PFS, 60% for PTh and 10% for PA.

The answers to the third question: „What percentage do you give to effort volume and intensity throughout the training of 11-12 years old female gymnasts?” show us that in the preparatory period-basic stage, the volume was given 70% and the intensity 30%, in the pre-competitive stage, the volume and the intensity were given 50% and in the competitive period– 40% to volume and 60% to intensity.

In the case of the fourth question: „What is, according to your opinion, the optimum work volume of 11-12 years old gymnasts in a weekly cycle?” we find out that the coaches’ opinions are distributed as follows : 40% are in favor of 18-20 hours per week, 56.7% think that the optimum volume is 20-30 hours per week and only 3.3% advocate more than 30 hours per week.

The fifth question: „In your opinion, what is the optimum time to be allocated to rest between the exercises?”. Most experts interviewed pointed out that the optimal allocation of time for rest between exercises should take into account several factors, namely: level of training, preparation stage or period, specific character of apparatus or of technical element. In terms of given answers, most coaches (50%) have chosen a duration of 30 seconds for rest, 6.7% selected a duration less than 30 seconds, 33.3% opted for 45 seconds rest, while 30% were in favor of a pause between exercises of 60 seconds or over 90 seconds.

The sixth question: "How many workouts per week do you think are necessary for gymnasts aged 11 to 12 to achieve optimal performance?" it was found that only 10% believed that 5 workouts per week are needed, 40% considered that seven workouts a week are required, 20% felt that they needed 10 workouts per week and 26.7% answered that over 10 workouts per week were deemed necessary.

The seventh question: „How do you structure the order of apparatus and their number within a micro-cycle with two training sessions per day?". This question has been somewhat difficult because the material conditions of the clubs do not allow us to carry on two workouts a day; such program is possible during competitive period only, involving great efforts of coaches and parents as well. Discussing with the major part of the experienced coaches, it resulted that they had tried to stagger the order and number of apparatus each day.

As for the answers to the seventh question, they highlight the work apparatus: artistic training, vaults, uneven bars, beam, floor and physical training; the order number of apparatus, the number and percentage ratio between these ones, with the highest value at each training session per day. These data can be used as a model for the training of junior female gymnasts aged 11 to 12.

The eighth question: "According to which criteria do you establish the optimum number of reps in learning the technical elements on apparatus?". Each coach-teacher selected several answers, justifying that all criteria are important, but one or more of them can be applied depending on the situation. The majority answered that 76.7% of the coaches determine the optimal number of repetitions, taking into account the structure and difficulty of the element, 56.7% take into consideration the training level and 30% - the execution correctness and the apparatus specificity.

At the ninth question "Do you use preparatory exercises / equipment while teaching a difficult technical element?" it was found out that all gymnastics specialists use preparatory exercises and ancillary equipment. This fact proves that the sports clubs are still using teaching methodical means.

The tenth question: "How do you proceed in case of erroneous skill learning?" is another very important question in the artistic gymnastics training process. Most coaches answered the question trying to explain different situations when a wrong skill is learned. Thus 73.3% considered that we should try to correct the mistake immediately; if this is not possible 30% referred to the replacement with another similar element, and 26.7% considered that the element should be given up for a period and resumed later by means of basic exercises; only 6.7% felt necessary to change the initial position or to connect it with other technical elements. As for the eleventh question: "Do you take into consideration the functional training level of 11-12 years old junior female gymnasts?" we found out that 93.3% of all coaches take into account the level of functional training; only 6.7% of them work without considering this issue. The twelfth question: "Which of the effort capacity indices do you take into account when training the juniors?". The answers received showed that not all functional indices allow us to use them in training and the most frequently used, 76.7%, is the respiratory rate. The thirteenth question: "What do you think is the optimal number of technical elements to be executed in a weekly cycle by 11-12 years old gymnasts?". This question shows if the coaches know the

workload at this level and what is their opinion on the optimum number of elements. Most responding coaches, namely 53.3% considered necessary to use over 1000 technical elements throughout a weekly training cycle, 30% thought that 500 to 800 technical elements are needed, while, we believe, only 13.3% did not refer to all technical elements used in workouts.

Regarding the fourteenth question: „Do you consider useful the requirements of the Romanian Federation of Gymnastics (RFG) to ensure the continuity of gymnasts' training by means of compulsory technical elements on apparatus?” The major part of coaches-teachers and referees mentioned that the requirements are useful in ensuring the training continuity but that they are not implemented as they should be. An issue that the coaches did not agree on, regarding these changes of the program, refers to consulting also the other coaches who have worked in performance for many years in our country.

Conclusions

The results of the study highlight the specialists' opinions on the influence of effort parameters in the training of 11-12 years old junior female gymnasts.

The questionnaire-type survey method applied to specialist coaches-teachers and female referees in women's artistic gymnastics field emphasize the key indicators and effort parameters that influence the training of junior female gymnasts aged 11 to 12.

Choosing the most frequent responses to each question of the questionnaire led to the development of a training model related to effort parameters in junior gymnasts' training.

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CROSS COUNTRY IN THE WORLD

Florin Pelin¹, Raluca Anca Pelin²,

Keywords: appearance, titles, wins, prospects

Abstract

The first purpose of this constatative paper is presenting the evolution of the most valuable during the World Cup.

The revealed dates are from 1982 until present. On the other hand, the paper relief the past and future evolutive directions of the highest women and men cross-country performance.

Introduction

Through this essay I wish to highlight a few words and tables about what happened in World Cup cross-country skiing, from its beginning until now, and how important has ski tour become in order to determine the overall hierarchy at the end of the season. The onset of official cross-country skiing competitions held at the beginning of the second decade of the twentieth century.

The establishment of the International Ski Federation (FIS), in 1924, has contributed enormously in the development of skiing as a sport in general and the Olympic discipline in particular. Since the first edition of the Winter O.G., at Chamonix (1924), cross-country skiing was present with two male events - 15 km and a 50 km, and both medalists were Norwegian.

At the W.C. in 1982 medals were awarded to athletes especially from Nordic countries, but it should be noted that also the American Bill Koch was among medalists. B. Koch is worth being mentioned for the contribution at the revolution that would occur in cross-country skiing technique, plus his merit to win the large crystal globe's first World Cup. Actually the U.S. has remained in history as the only oversea skier who ever won the World Cup.

At the O.G. in 1984 in country skiing appear big names, such as multiple Svan G. Swede World and Olympic medalist and winner of the large crystal globe five times. Soviets are to be in the light in 1988, especially Smirnov, who wins the World Cup two times, and becomes multiple world and Olympic medalist.

In 1989, he put an end to the dispute regarding the rules and schedules for the classical style and freestyle. Year 1991 brings into focus the one who was to become the best cross-country athlete of all time, the Norwegian B. Daehlie, who holds the record number of trophies and crystal balls.

Women's World Cup standings look like this:

Edition	Year	1st place	2nd place	3rd place
---------	------	-----------	-----------	-----------

¹ UNEFS Bucharest

² U.P. Bucharest

no.				
1	1982	B. A. Kvello - NOR	B. Pettersen - NOR	K. Jeriova - CZE
2	1983	M. Haemaelaeinen - FIN	B. Pettersen - NOR	K. Jeriova - CZE
3	1984	M. Haemaelaeinen - FIN	R. Smetania - SOV	A. Johren - NOR
4	1985	A. Boe - NOR	G. Ingeborg - NOR	B. Pettersen - NOR
5	1986	M. Matikanen - FIN	M. Dahlma - NOR	B. Pettersen - NOR
6	1987	M. Matikanen - FIN	A. Reztsova - SOV	M. Dahlma - NOR
7	1988	M. Matikanen - FIN	H. Oestlund - SWE	M. L. Haemaelaeinen - FIN
8	1989	E. Vaelbe - RUS	A. Havrancilova - SVK	T. Tichonova - SOV
9	1990	L. Lazutina - RUS	E. Vaelbe - RUS	T. Hartz - NOR
10	1991	E. Vaelbe - RUS	S. Belmondo - ITA	L. Egorova - RUS
11	1992	E. Vaelbe - RUS	S. Belmondo - ITA	L. Egorova - RUS
12	1993	L. Egorova - RUS	E. Vaelbe - RUS	S. Belmondo - ITA
13	1994	M. Di Centa - ITA	L. Egorova - RUS	E. Vaelbe - RUS
14	1995	E. Vaelbe - RUS	N. Gavriiliuk - RUS	L. Lazutina - RUS
15	1996	M. Di Centa - ITA	E. Vaelbe - RUS	L. Lazutina - RUS
16	1997	E. Vaelbe - RUS	S. Belmondo - ITA	K. Neumanova - CZE
17	1998	L. Lazutina - RUS	B. Skari - NOR	S. Belmondo - ITA
18	1999	S. Belmondo - ITA	B. Skari - NOR	N. Gavriiliuk - RUS
19	2000	B. Skari - NOR	K. Smigun - EST	L. Lazutina - RUS
20	2001	J. Tchepalova - RUS	B. Skari - NOR	L. Lazutina - RUS
21	2002	B. Skari - NOR	K. Neumanova - CZE	S. Belmondo - ITA
22	2003	B. Skari - NOR	K. Smigun - EST	G. Paruzzi - ITA
23	2004	G. Paruzzi - ITA	M. Bjoergen - NOR	V. Shevchenko - UKR
24	2005	M. Bjoergen - NOR	K. Neumanova - CZE	V. Kuitunen - FIN
25	2006	M. Bjoergen - NOR	B. Scott - CAN	J. Tchepalova - RUS
26	2007	V. Kuitunen - FIN	M. Bjoergen - NOR	K. Neumanova - CZE
27	2008	V. Kuitunen - FIN	A. Jacobsen - NOR	C. Kalla - SWE
28	2009	J. Kowwalczyk - POL	P. Majdic - SLO	A. K. Saarinen - NOR
29	2010	J. Kowwalczyk - POL	M. Bjoergen - NOR	P. Majdic - SLO
30	2011	J. Kowwalczyk - POL	M. Bjoergen - NOR	A. Follis - ITA

RUS=9; NOR=7; FIN=7; ITA=4 ; POL=3

The most crystal globes have been awarded to Elena Vaelbe from Russia, number 5. Actually Russia dominates the ranking, being the first in a ranking of all time in the number of trophies for this sport. Then, there are three other girls who won glass globes, these being; Marja Matikanen FIN, Skara Bente NOR and Kowwalczyk Justina POL. And then we have competitors winning two large glass globes, or even one. It is also worth noting that there are many athletes who have finishes on the second and third in overall World Cup ranking.

For men's, standings look like this:

Edition no.	Year	1st place	2nd place	3rd place
1	1982	B. Kock - USA	T. Wassberg - SWE	H. Kirvesniemi - FIN
2	1983	A. Savialov - SOV	G. Svan - SWE	B. Kock - USA
3	1984	G. Svan - SWE	T. Wassberg - SWE	H. Kirvesniemi - FIN
4	1985	G. Svan - SWE	T. H. Holte - NOR	T. Wassberg - SWE
5	1986	G. Svan - SWE	T. Mogren - SWE	V. Smirnov - SOV
6	1987	T. Mogren - SWE	T. Wassberg - SWE	G. Svan - SWE
7	1988	G. Svan - SWE	T. Mogren - SWE	P. G. Mikkelsplars - NOR
8	1989	G. Svan - SWE	V. Ulvang - NOR	T. Mogren - SWE
9	1990	V. Ulvang - NOR	G. Svan - SWE	B. Daehlie - NOR
10	1991	V. Smirnov - SOV	T. Mogren - SWE	V. Ulvang - NOR
11	1992	B. Daehlie - NOR	V. Ulvang - NOR	V. Smirnov - SOV
12	1993	B. Daehlie - NOR	V. Smirnov - SOV	V. Ulvang - NOR
13	1994	V. Smirnov - SOV	B. Daehlie - NOR	J. Isometsae - FIN
14	1995	B. Daehlie - NOR	V. Smirnov - SOV	S. Fauner - ITA
15	1996	B. Daehlie - NOR	V. Smirnov - SOV	J. Isometsae - FIN
16	1997	B. Daehlie - NOR	M. Myllylae - FIN	F. Valbusa - ITA
17	1998	T. Alsgaard - NOR	B. Daehlie - NOR	V. Smirnov - SOV
18	1999	B. Daehlie - NOR	M. Botvinov - AUT	M. Myllylae - FIN
19	2000	J. Muehlegg - SPA	J. Isometsae - FIN	B. Hjelmset - NOR
20	2001	P. Elofsson - SWE	J. Muehlegg - SPA	T. Alsgaard - NOR
21	2002	P. Elofsson - SWE	T. Alsgaard - NOR	A. Aukland - NOR
22	2003	M. Fredriksson - SWE	R. Sommerfeldt - GER	Y. Brink - SWE
23	2004	R. Sommerfeldt - GER	M. Fredriksson - SWE	J. A. Svartedal - NOR
24	2005	A. Teichman - GER	V. Vittoz - FRA	T.A. Hetland - NOR
25	2006	T. Angeren - GER	J. Arne Svartedal - NOR	T. A. Hetland - NOR
26	2007	T. Angeren - GER	L. Alexander - RUS	R. Eldar - NOR
27	2008	L. Bauer - CZE	R. Sommerfeldt - GER	T. A. Hetland - NOR
28	2009	D. Cologna - SUI	P. Northug - NOR	O. V. Hattestad - NOR
29	2010	P. Northug - NOR	L. Bauer - CZE	M. Hellner - SWE
30	2011	D. Cologna - SUI	P. Northug - NOR	D. Rikardsson - SWE

With respect to the number of World Cup victories in one winter, a record may be impossible to match by anyone in any discipline in winter (92 biathlon and one for cross-country skiing). It belongs to the Norwegian Biathlon Ole Einar Bjordalen, who still competes. The maximum number of large crystal globes awarded one skier is 6 and belongs to the Norwegian ski Bjorn Daehlie.

Daehlie also holds another record unrivaled in ski and 8 Olympic gold medals. A single winner of the crystal globe is American.

The rest come from the old continent and have won the Crystal Globe as

follows:

SWE=9; NOR=9; RUS=3; GER=3; SPA=1; USA=1; CZE=1; SUI=2

At the medals, the leaders in the Nordic countries are still leading, the ones on the following places having little chance of actually dethrone. From the edition number IX, Winter Olympic cross-country skiing program has six events. Once the sprint was inserted in the competition, cross-country skiing became a show for those who love winter sports.

As for the tour ski, during the four editions not every time the big crystal globe was won by the same athlete who won the ski tour. Relevant is that those who were entertained during the peak ski tour, they had a place on the podium at both the World Cup final, and supreme season competitions (World Championships). Events that are scheduled in two styles and different distances is a win for athletes available. Then the tour prologue is a distance less commonly used in training and competitions. Finally, the fact that after each event is known the ski tour leader is again a strong point of this competition.

Regulation tour is well thought out and attractive both in terms of athletes, coaches, and especially in terms of spectators and television which began to require ever more in all sports.

Several findings and conclusions

The event which has eased in today's planetary dimensions of sking was the creation in 1982 of the World Cup. World Cup began due to favorable circumstances and its name, revolutionary at the time and with a good resonance: World Cup, Coupe du Monde, Weltcup, made interest in a new form of competitive skiing to achieve higher rates even before conduct the first races.

Relevant is the fact that in 1966, outside the Soccer World Cup, no other sport had a competitive system that also had a sounding name like this, and that the other sports, athletics, cycling, sailing, etc. and also including other winter sports such as jumping, biathlon, cross-country skiing to all were inspired by the name and organizational form Alpine Ski World Cup.

Prior to the establishment of new forms of competition, ski races were not very well organized, except for major competitions where the Olympics and World Championships were a great success in the media and enjoyed a large popular support. Ski tour appearance was felt in athletes training strategy aimed at addressing the large crystal globe. The fact that at the end of the ski tour one receives 400 points was the first temptation.

Another factor of interest is customary ski tour rules, namely the granting bonus seconds and starting order for each race and especially the final taking place in the alpine ski slope, where the approach trail is climbing about two miles.

Then programming competitions within about two weeks was again something appropriate for those interested in points.

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COMPARATIVE STUDY BETWEEN ORTHOSES FOR RECOVERY POST TRAUMATIC AHILLES TENDON

Ady Rancea¹

Keywords: orthosis, tendon, recovery, scheme.

Abstract:

This paper aims to highlight the role orthosis "Comarna" compared with orthopedic orthosis, sold for the recovery of post-traumatic Achilles tendon.

Introduction

Orthosis "Comarna" orthosis is one that i conceived for the recovery of post-traumatic ahilian tendon, and the name comes from the first patient in the village "Comarna" Iasi.

In market there are many models of post traumatic recovery orthosis Ahilian tendon and is most often used in orthopedic company.

This paper analyzes the advantages is the use of orthosis "Comarna" than the othermodels, the company that the orthopedic shoes.

Present

Achilles tendon connects the heel and calf muscles (fig. 1). It is the largest tendon in the body and allows the finger movements during walking and running. The tendon can tearfully or partially. While a partial rupture may be completely asymptomatic or causes amild symptom, a complete tear causes a sudden intense pain and pirdera affected legstrength and mobility [1].



Fig.1. Achilles tendon

If the Achilles tendon sectionarii emergency surgery involves ligation and functional recovery of the tendon of interest.The question of recovery. Recovery is a process of continuous development. This persupune an orthosis that would satisfy such a requirement.

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One solution is a dynamic orthosis, but this model can be blocked from moving from a number of degrees.

Interest in physical therapy is a model that allows setting the stage dorsiflexion in number of degrees, and in the final stage the same orthosis to allow free movement in the joint to assist.

The solution is orthosis "Comarna" for these stages, a cut on the leg support in making a dynamic orthosis to assist.

Comparative Study

Produced adjustable ankle orthosis orthopedic company is presented in fig. 2, and orthosis "Comarna" in fig. 3.

Adjustable ankle orthosis produced by company "orthopedic"

Product Description:

- Includes two cases of leg and calf thermoformed material (polyethylene) foam padded polyethylene;
- mobility through a joint resulting in the ankle joint;
- closing the leg is made with Velcro strips;

Notes:

- tendon rupture Achilles;
- post-operative treatment of malleolar fractures.



Fig.2 orthosis orthopedic



Fig.3 "Comarna" (side view, front) [5]
a. Right side view .



b. Front view

Kinematic diagram of the orthosis "Comarna" compared with orthopedic orthosis

Kinematic scheme orthosis "Comarna" is shown in fig. 4, and the orthopedic orthosis in fig. 5 [2,3,4].

Considering the functional role of this orthosis can be presented as a singular kinematic element, consisting of several parts rigidly together. In terms of both kinematic orthosis "Comarna" and orthopedic orthosis may be considered unsuitable for some simple kinematic chains opened.

By definition kinematic chain is a set of elements interconnected by kinematic joints kinematic (direct links and mobile).

Thus, they qualify and become weakened when drive line connection to rigid

regulation. They also meet the conditions and driveline are when used by the patient and accidental and unintended weakening of the link rigid, whereas the consequences are very unpleasant. Becoming conditions are met and if exceeded allowable if slicitarii test. All improperly, can be called kinematic couplings 6th because they are composed of two elements combined kinematic rigid.

By definition kinematic couplings is a direct link between two mobile and cinematic elements. Clearly the conditions and kinematic couplings are the same year as those described above situations.

Given the unpleasant consequences that might occur in use of necessary measuresfiabilizare orthosis.

The apparent difference between the two schemes for kinematic orthosis "Comarna" because they have taken constructive steps to improve safety and increase operational benefits.

Kinematic coupling is blocked by three screws placed equidistant on the circumference of a certain radius where the orthosis "Comarna" to block only by a central screw for orthopedic orthosis.

Given the structural elements of the composition of the two orthoses may signal the following advantages:

- determining if the orthosis joint guaranteed "Comarna" insecure attachment to requiring additional measures to strengthen the bandages for orthopedic orthosis;
- smoother and easier adjustment of the orthosis by controlling the angle tightening screws secure if orthosis "Comarna" less safe compared to control by manipulating a single screw and had the same office if orthopedic orthosis;
- limiting the rotation strong cinematic elements within elongated holes covering the existence of a circumference, where the orthosis "Comarna" lack or complicated to design for orthopedic orthosis.

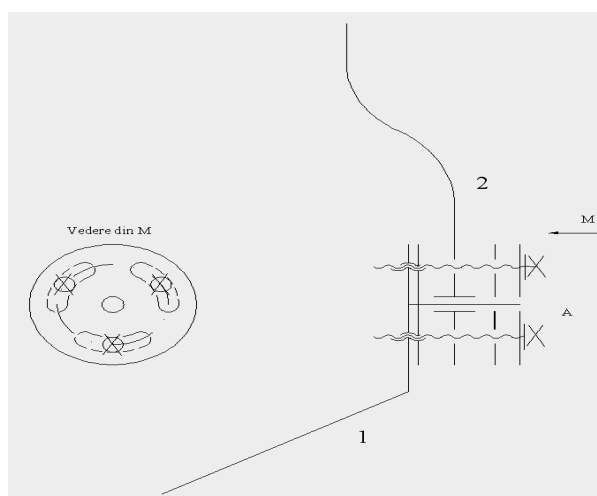


Fig.4. Kinematic scheme Comarna orthosis

Membership in the following conditions:

- when insurance deliberate mobilization of cinematic elements to adjust the relativeposition ungiulare;
- upon the occurrence of forced and undesired mobilization of cinematic elements for exceeding allowable limits to the test application or service.

1, 2 - cinematic elements,

A - kinematic coupling (direct connection and mobile).

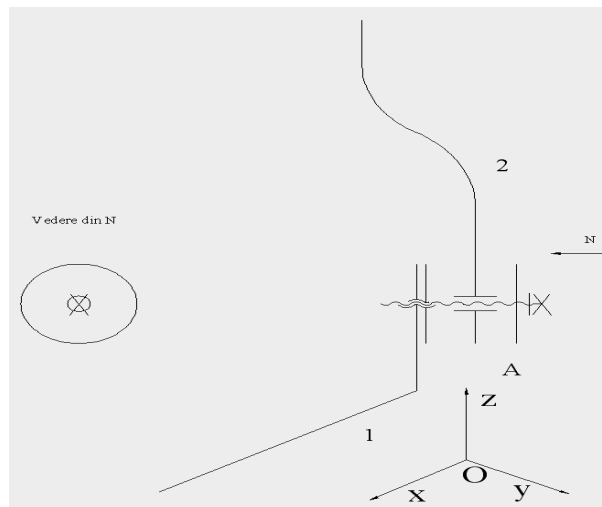


Fig.5. Kinematic scheme orthopedic orthosis

Membership of the following conditions:

- when insurance deliberate mobilization of cinematic elements to adjust the relativeposition ungiulare;
- upon the occurrence of forced and undesired mobilization of cinematic elements for exceeding allowable limits to the test application or service.

1, 2 - cinematic elements,

A - kinematic coupling 5th grade.

Conclusions

According to, national and European legislation (GD no. 1048/2006, the European directive 89/656/EEC respectively) dynamic orthosis following conditions:

a) is appropriate for the risks involved, it himself without leading to an increased risk;

b) take into account ergonomic requirements and patient health status;

c) properly fits the person wearing it, after all adjustments necessary.

Standard SR EN 13291:2007 (EN 13921:2007) "Personal protective equipment Ergonomic Principles "is a guide on ergonomic features on these products. Among the factors to be taken into account in determining the ergonomic requirements, note:

-"comarna"orthosis provides protection against the risks specified and is ergonomically appropriate for the intended use;

- “comarna” orthosis allows specific movements;
- “comarna” orthosis adaptability and maintenance performed on the body: control, stability adjustments, adjustment of body;
- orthosis does not cause irritation and causes no discomfort;
- orthosis did not worsen biomechanical characteristics: mass distribution, the dynamics of inertial forces on the human body, hindering movements, abrasion or compression of the skin and muscles, increased vibration;
- orthosis is not a stress factor on the patient

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TAE BO MODERN MEANS TO PRACTICE PHISICAL EDUCATION

Robert Sakizlian¹, Monica Sakizlian²

Key words: kicks, concentration, balance, training.

Abstract

For practicing Tae Bo will not be sufficient to perform a number of training sessions a week in which to sweat or burn many calories. This discipline requires, more than any other, equal participation of our psyche during training. To achieve assimilation proper technique should always think about what we do to that Tae Bo is not a contact sport but a fight - with an imaginary opponent, a battle with ourselves, to be a dispute at a highest level of technical.

Introduction

As you, every stance, step, knee raise, kick, punch, exercise, or combination requires thought and focus.

It's not unusual for people-especially as they start to tire-to let their minds begin to wonder. If you're working out and thinking about your personal problems stop and refocus. Keep yourself alert by thinking about what you're doing. Ask yourself, "How do I feel?"; "What made that punch feel so much smoother than the one I did a minute ago?"; "Why is this kick so low today?"; "Where do I feel it in my arm with the Jab?". Use your Workout to know your body and become its master. Once you get into the habit of focusing, it will be harder to think about anything else.

Tae bo is an exercise program that combines the best of several different disciplines. A combination of martial arts, boxing, aerobics and dance exercises posted on a trained musical background, here's the secret world of this new trend in exercise. The exercise is relatively easy and convenient for anyone who wants to do maintenance but the move may be designed workouts for weight loss or development and driving qualities.

Tae bo brings together the selfawareness and discipline of the martial arts the rhythm and grace of dance, and the focus and power of boxing. It was chose the word "tae", which means 'foot and leg' in Korean, because many of the movements emphasize the lower body; 'bo' is a shortened form of the word "box.. In fact each letter of tae bo has significance as well, because they stand for the qualities that tae bo both demands and develops:

T represents total commitment to whatever you do

A represents awareness of your self and the world.

E represents excellence, the truest goal in anything you do

B represent the body as a force for total change

O represent obedience to your will and your true desire for change.

Tae bo teaches you to focus you on your techniques, it's actually safer

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than many other exercise programs – especially those that are loosely based on tae bo – that encourage you to blindly “go for it” without teaching you how to move your body safely. The beauty of the tae bo workout is that it’s your own. You set your goals, you decide how far to push your self and what you need to achieve to improve your body, your mind and your spirit. Remember there is no final destination on this journey, no one goal that marks the end of the road. You can set goals along the way : Maybe in the three months, or six months, or a year, you want to have the strength and the stamina to complete the full advanced workout without stopping to march. But even after you’ve achieved that, you can workout on other goals inside the workout. If you can do five sets of eight side kicks don’t stop there. You can always improve your technique, or kick higher, or recover more cleanly, or add a sixth set of eight, or create a punch-side kick combination for a seventh set.

Learn to count music. Depending on who you are, that probably sounds either very simple or very complicated. Even if we’re the type who hasn’t set foot on a dance floor in years, we can still do Tae-Bo. A sense of rhythm is really just the ability to count music correctly. Almost all popular music is written in measures of eight beats each. When we learn to count beats correctly, we’ll find it much easier to stay in the rhythm of the Workout. We can practice by counting along as we listen to music and counting aloud as we work out.

We might think that counting out loud and counting silently to ourself are the same. They’re not. Our body responds to sound, and we can test this ourself by trying a four-part combination-let’s say, Left Jab, Right Cross, Left Jab, clap. While counting out loud and then repeating the combination while counting silently to ourselves.

There’s probably a deep psychological reason why voicing our intentions makes them easier to follow through. All I know is that in Tae-Bo, counting out loud as you work out improves your technique, increases your stamina, and almost guarantees that you’re breathing correctly.

Sharpen your sense of positioning.

First, realize that every day, your body is constantly performing movements that you don’t even think about. But when you work out, you have to break the habit of moving automatically. You have to learn to move with more selfawareness.

We make a little experiment which consists in describing the position of the feet and legs, without looking at them. Questions:

1. Are you placing more weight on one leg or is it equally distribute between both?
2. Which way are you toes pointed?
3. Are you knees locked, or straight but relaxed, or bent?

There are no right or wrong answers here but certainly we couldn’t answer those questions without stopping to think about it and look. That’s because we move without thinking all the time. Tae-Bo will change how you move, you need to focus so intensely to learn and to execute Tae-Bo, you can’t help but become more aware in continuing to do Tae-Bo and working through greater challenges, you sharpen your body consciousness even more.

How often should I do Tae-Bo?

First, as with any fitness program, check with your physician to make sure

you can start an intense workout program. Tae-Bo can be done everyday or a couple of times a week. For maximum benefit, like any other cardiovascular program, you should consider doing the Tae-Bo at least three times a week.

Beginners are advised to start slow and build up their endurance. Tae-Bo is challenging and requires use of your entire body. Don't get discouraged if you get tired quickly in the beginning. The entire idea of Tae-Bo is to maximize the benefits by incorporating the entire body into the workout.

If Tae bo were simply another exercise program we could all stop and we could be satisfied that we have passed the begin stage. Tae bo is also a way of thinking that unites your mind your heart, and your spirit. Tae bo has endured and continue to grow, because no matter what stage your in whether you started just yesterday or have been doing it for ten years – the workout will give you challenges and possibilities you never imagined attempting much less succeeding at. That's why Tae bo has no beginning and no end. You can be 21 or 61 years old, a champion runner or a world-class couch potato-it doesn't matter where when or how you start as long as you do. Although if you have a serious or chronic health problem, are overweight, or have not exercised in a while, it's recommended that you check with your doctor before you begin any exercise program.

Tae bo teaches you to focus you on your techniques, it's actually safer than many other exercise programs – especially those that are loosely based on tae bo – that encourage you to blindly “go for it” without teaching you how to move your body safely.

Conclusions and recommendations.

In order to coordinate complex movements we make in training, we must consider several issues that will help us to improve our ability to focus:

► Focus on working each body part individually while at the same time making sure that every Tae-Bo move is executed with your full body. It sounds like a contradiction but only if we focus on each body part as we move it we could isole the movement and than give her strenght and direction through and tire body movement. The part of your body you're moving is just the focal point of your entire body's energy and force.

► Break down every move while we learning and after try to put together all the elements that make a good kick for instance. There are many things that we should learn when we practice the Tae Bo and we will spend a lot of time to combine every elements for a good kick. Removing a motion exercises and use of aids will acknowledge the role that each segment plays in a combination, every move will lead to achieving the imaginary target.

► We must ensure that we make throughout their flight movements at each iteration. When we get tired it makes sense to save energy by limiting the movements, but if we look in a mirror, we see that executions are not as accurate as when we rest. Unfortunately, this strategy to save a lot of our energy, increased training will compromise with the risk of injury.

► Identify weaknesses in our training and their awareness will help us correct them in order to train ourselves to our utmost in safety. Each of us has a part that is stronger than the other. If we are right handed, left side of the body will not be as strong and therefore it is recommended to start the exercises on the left. If we

left, and the left side is stronger, we begin with the right exercises. It is always better to work the lower part first, because most people should do more concentration and effort while executing a move using that side. We also discover that there are some movements of Tae-Bo to us easier than others. For example, women are stronger in terms of the lower body, while men rely more on top. Or maybe we'll be forced to make an extra effort in producing muscle movements executed with those less developed areas such as abdomen, for example. Note is that we need to practice great abdominal muscles Tae-Bo, but we can get if we continue to practice it.

► Execution of training must be done by implementing an appropriately paced learning phase where we are. Is there a correct way to execute each movement of Tae-Bo, but the technique can be adapted for each individual. If we feel that we lose balance while running the basic position, we can start practiced for a higher position which gives us stability. A perfect form in every movement, it is not possible for all those who practice Tae-Bo, but this should not blind us to practice it until we can achieve sufficient fitness exercises properly executed. Do not let that what we can do today to work for us from what we can achieve tomorrow.

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A KINETIC APPROACH TO THORACIC KYFOSIS TO PREGNANT WOMENS

Ana Maria Tătaru¹, Andrei Dumitru²

Keywords: kyphosis, the periods of pregnancy, functional balance

Abstract

Change pregnant women is explained by changes in static weight distribution and there is a degree of ligaments laxity and joints relaxations, such as hormonal.

As atypical cifozele thoraco-lumbar position were at greater risk for obstetrical impact of abortion or premature birth and respiratory impairment hipoxemiefetoplacental by type restrictive mother.

With well kinetic programs established can be obtained, the correction of the lordosis curvature and the more pronounced in the lumbar spine and toning the abdominal muscle by shortening , and lengthening the sacro lumbar muscles.

For any woman, pregnancy should be the most enjoyable emotion of his life, feeling the greatest achievements, but because of physical and emotional changes that occur during this period, not all women can fully enjoy this achievement.

Introduction

Pregnancy is a physiological condition, the woman's body adapts to new situations to achieve a functional balance, perfect harmony between pregnancy and conception product. In order to obtain a good functional balance, to have a happy and healthy pregnancy without emotional depression and physical discomforts, she must make some changes in their lifestyle during this period.

Exercise regularly and resting place, combined with a well balanced diet helps women to maintain good health during pregnancy.

The changes of the Osteo-artro- miokinetic system during pregnancy

During pregnancy, the calcium content of bones decreases, but also increase their elasticity. Joints become more lax, especially sacro-iliac joints, spine and pubic symphysis.

However, along with the increase in uterus weight, increases lumbar lordosis, poor positioning of the shoulders and balance instability.

Following removal of the uterus forward, change the body's center of gravity, which is compensated by tilting the back of the body and enhancing lumbar lordosis. Increased pelvic tilt causes paravertebral muscle strain, is increasing as the distension of the abdominal wall and uterus prior to slope, the lumbar lordosis becomes more intense, sollicitating back muscles and giving rise to

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low back pain.

Change pregnant women is explained by changes in static weight distribution and there is a degree of ligaments laxity and joints relaxations, such as hormonal.

Kyphosis, one of the causes and complications during pregnancy

Because kyphosis is a contraindication for pregnancy, obstetricians recommended that patients with this pathology does not keep the pregnancy, or to suggest surgical treatment of kyphosis before pregnancy occurs.

Aggregation of multiple risk factors, such as rachitis sequelae, early age at which pregnancy occurs (minor) and a product of conception of proportion with the woman's constitution, creates the premises for hiperkyphosis during pregnancy.

As atypical cifozele thoraco-lumbar position were at greater risk for obstetrical impact of abortion or premature birth and respiratory impairment hipoxemiefetoplacental by type restrictive mother.

Indications of the physical therapy during pregnancy

Exercise regularly carried out and rest combined with a well balanced diet helps women maintain good health during pregnancy. Exercise moderately and regularly, is considered harmless and even beneficial for most pregnant women because of physical and mental tensions downloads.

Exercise improves blood circulation, muscle tone, energy supply, relaxation, giving the pregnant woman feel good, that if she was in good physical shape and better able to handle the task will have an easy birth.

Make exercise during pregnancy is therefore important for several reasons, but it is of vital importance to proper types of exercise.

Research Methodology

The purpose of this paper is:

- achieve: objective assessment of all the changes that occur in a woman during pregnancy with preexisting kyphosis
- the application of all techniques and methods to prevent the rise of the kinetic thoracic kyphosis
- to prevent the installation of respiratory failure, anemia, toxemia of pregnancy, and prematurity, described as having a higher incidence in such a pathological situation in the literature.

Research hypothesis:

Through a systematic and selective application of kinetic programs both during pregnancy to prevent the rise of kyphosis, improving respiratory function and reduce low back pain caused by the increased hiperlordosis and compensatory kyphosis studied in pregnant women will get an influence favorable both in the peripheral, muscular, circulatory and neuropsychological in the central-mother. It will improve fetal perfusion and decreases the risk of abortive or premature birth.

Research tasks:

- to select one or more patients with the this diseases
- to determine the indications and contraindications of the kinetic program for pregnant womens
- to determine and to select optimal kinetic pregnancy programs;
- to determine the period of time, optimum frequency and intensity kinetic

methods and techniques;

- to individualize the program depending on the specific kinetic and each pregnancy complications;
- to take into account the principle of priority when working two curves (one main and second compensatory).

The purpose of physical exercise are:

1. train for making the stretch reflex for correct attitude of the body upright and in the dynamic actions.

2.the correction of the lordosis curvature and the more pronounced in the lumbar spine and toning the abdominal muscle by shortening , and lengthening the sacro lumbar muscles.

3.the recovery of the tilted pelvis and the hiperextended knees.

4.the correction of the position of the head, neck and whole body

Means and methods of kinetic

- gymnastics
- exercise
- relaxation techniques
- aromatherapy
- postures
- stretching
- aerobic exercises.

Physiotherapy program for the first quarter of the pregnancy

The objectives of the kinetic program

- improve posture;
- pelvino-abdominal muscle strengthening;
- maintaining skin elasticity, stretch mark prevention and edema;
- rehabilitation of breath;
- achieving relaxation.

The kinetic program for the second quarter of the pregnancy

The Objectives of the kinetic program :

- increasing mobility of the spine;
- toning the back muscles and legs;
- Preventing back pain and fatigue;
- pelvino-abdominal muscle strengthening;
- prevention of edema ;
- plantar arch collapse prevention;
- improvement of respiratory function;
- achieving relaxation.

Research results and their interpretation

The study was a case study on one pregnant, taken out to a private practice in obstetrics and gynecology at mid-quarter trimester in Pitești.

The patient was sent to consult orthopedic specialist, she returned with the diagnosis of thoracic kyphosis 45 °.

At a respiratory functional test, spirometry already pointed in Second Quarter restrictive dysfunction, which required therapeutic exercise program to start.

We used kinetic program during pregnancy for the second and third trimester mentioned above.

Kyphosis angle was determined by using a mouse spinal made by the orthopedics department.

From baseline to 45-degree aggravated it to 50 degrees by the end of pregnancy. To ease the load, the patient was using an orthosis.

Conclusions

The research conducted in this paper to demonstrate the role of physical therapy in pregnancy complicated with prenatal thoracic kyphosis using a series of kinetic schemes, we obtained good results both in the peripheral and the central part, reaching finally the following conclusions: as a result of the exercise was successful combat back pain.

By maintaining tonicity in abdominal muscles, lumbar and pelvic the training programs succeeded in reducing the lordosis and correct the compensatory toracal cifosis. Respiratory function will be used to induce a state of deep relaxation and rhythmic breathing.

As a result of exercise and breathing exercises, breath control and capacity reduced the distorted cifotic rib cage and it was critical for maintaining pregnancy until the eighth month, when he decided to intervene early by caesarean section to avoid being take unnecessary risks.

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SCHOOL SPORTS FEDERATION IN ROMANIA - NECESSITY OF INTERNATIONAL ACHIEVEMENT OF SCHOOL SPORTS ACTIVITIES

Emil Creangă¹

Key words: Centers of Excellence, sports, performance, competition

Abstract

There have been founded many Centers of Excellence for many sports branches and they now function within educational institutions which are valuable for the area they are part of.

All the sportsmen sign contracts with the Center of Excellence and are temporarily transferred to these centers with the right to play for the teams which promoted them towards the centers, within any period of the year, based on the request of the clubs and the family's approval.

The preparation within these centers is translated into the participation in the activities organized by the International Federation of School Sports (ISF) which are considered as World School Championships, where all the national sports schools meet to fight for the title of world champion.

Unfortunately, Romanian school sports have been missing these competitions for many years, but lately, there have been made efforts to re-integrate the Romanian school sports in the International Federation of School Sports and the Romanian students have already participated, boys and girls, in The World School Handball Championship in 2010, in Portugal together with twenty-three other teams from all over the world, and in the World School Cross Championship in Slovakia together with other thirty countries

We are sure that in the following period all the people will become aware of the necessity of our participation in this type of competitions because we, as nation, have much to say related to sports and we usually get respected by the other competitors when competing.

All in all, we consider very important to create the Centers of Excellence in Sports with a long tradition in Romania and which have proven our qualities in time.

Introduction

Children's orientation towards sports fulfills the process of multilayer preparation or specialisation of the future performers through the ludic trait, preparing the fight towards being the best.

This orientation does not suppose selection criteria or strict rules; even a child with problems of some kind may become a good sports person if the instruction and education process aim at accepted goals. One may say that the

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sports selection is based on different types of functions: emulative (competitive), constative (appreciative), discriminative (depending both on exogenous and endogenous factors which obey objective rules), educative (continuous selfimprovement), social (personal and social fame).

The performant, being physically and morally engaged to self improve, is able to create values which are representative for our society. Therefore, he/she is a model and can be modelled.

In other words, the performant is a special model because he/she has a human construction with a special structure which is very adaptable to ample morpho-psycho-functional and social dimensions. Thus, he/she may be modelled from one discipline point of view only, based on the sports branch (the culturism sports people have form only).

Performance sports represent the activity of maximising the performance capacity and valuing it within large competitions, materialised in records and titles, medals and front places in the official national and international charts.

But, in order to obtain performance, the sports person must participate in official competitions, which are different from one branch to another, based on specific rules which establish the relations among the participants, ages and preparation levels, based on which a comparison may be made regarding the objectives, means and methods used in the sports training.

The competitions allow the information exchanges in many directions, therefore they can be considered real factors of ruling and social development through valuable promotion they generate and state.

When selecting for sports clubs, many qualities of the children are not obvious because of the lack of favourable conditions to develop them. In the past, the terrains, the pitches among the blocks of flats, the streets themselves, all would allow the unorganised practice of different types of sports which helped the development of some qualities. These days, we do not have those spaces in towns any more and the children have other possibilities to spend their time now, away from movement and energy consume at a young age. Thus, we find it very important to prepare the young generation to mentally select a sports branch based on the information from the press, films with great champions, practical demonstration from sports people, contests with simple rules but aiming at real goals and motivation for the future.

It is very important that the trainers keep close contact with the sports teachers who are the first selection factors for the performance sports as they have experience and the means of testing the students they teach.

When selecting, a great factor is the health level of those to be selected for performance. As health has both internal and external causes, the factors which influence it are very numerous and with a complex endogenous and exogenous nature. These factors have different kinds of influence and register important variations related to the cultural, economic-social development level which has been reached by science and technology, medicine and the degree of accessibility to the health system, residential environment, geographical areas, age, sex.

Based on the means of selection and the promotion politics regarding the sports career, and the performance evaluation system regarding the motivation and competitiveness, we can decide the causes for the situation which positively or

negatively influence the transformation, the input and the output of the performers.

The relation health – development – management should not be left out from any group analysis, no matter the domain of their function.

Related to each domain, the quality of the group has a rough core which can be expressed based on principles translated into criteria and, finally, in items corresponding to the evolution towards the great performance (leadership and its role). Any absolute principle, criterion or item is as harmful as its neglect and this represents that the health of the whole group is unique, no matter who the sports person or group are. The health of the whole is based on the health of the components.

For some people, physical exercises mean school, professional obligations taking shapes of lessons and sports activities, for others they are recreational activities, compensation, healing, optional activities and for others – most of them – they mean having fun, emotional participation. Sometimes, physical exercises represent a medicine, recovering, fitness, being somehow a national problem from the number of practitioners point of view it is widely known that not every practical activity needs science and that some of them are developed based on experience socially transmitted and personally achieved. But, when having complex activities where the relation between man and nature implies knowledge, laws and rules and if the human factor is involved as agent of practical action, technological knowledge, we will have to add the information from the humanities□ if we aim at special performance, then the need for science is a *sine qua non* condition.

There have been founded many Centers of Excellence for many sports branches and they now function within educational institutions which are valuable for the area they are part of.

All the sportsmen sign contracts with the Center of Excellence and are temporarily transferred to these centers with the right to play for the teams which promoted them towards the centers, within any period of the year, based on the request of the clubs and the family's approval.

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All in all, we consider very important to create the Centers of Excellence in Sports with a long tradition in Romania and which have proven our qualities in

time.

One should understand that we are not against some sports branches, but for the international representations, it would be normal to be prepared to go where we are able to obtain good results, according to the efforts of the human and financial resources, which are not to be neglected.

We must appreciate what is done for handball at Sighișoara, Râmnicu-Valcea, Deva, București and Constanța for gymnastics and football, Blaj for athletics. We believe that in this domain of sports excellence there is much to be added. Apart from the control and report function regarding the goals of preparation, front places where the work of the specialists should be appreciated. We also consider the Somatic Evolution Book very necessary for all the students in the pre-university education system, where there should be noted the yearly somatic evolution of the student, which would allow a quick view over the way he/she responds to the performance sports rigours and this would be useful for the initial selection process. The data will become the initial prognosis for the performance groups.

The scientific selection makes the teachers know the real data in the somatic evolution of the children, closely related to the development indicators given by parents.

All the people know that clubs look for sports people with large size, but it is more necessary to have them participating in any type of sports, no matter the performance, having in mind that the other way of spending time would be the computer which destroys the interest for movement and the general level of health. All these factors must not be neglected as they painfully influence our lives in long term.

All the students need to be educated regarding the factors which influence their health state and the level of development from a cultural, economic and social point of view. Each influence represents the expression, the result of a great number of impacts on the human organism from the environment and society whose intensity is variable!

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THE ROLE OF OCCUPATIONAL THERAPY VERSUS PHYSIOTHERAPY IN SOCIAL INTEGRATION OF THE CHILD WITH DISABILITIES

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Keys word: occupational therapy, integration, disabilities.

Abstract

Occupational therapy is a concept central occupation, underlining the importance of activities and participation in everyday life. Occupational performance is the dynamic interaction between person, environment, and occupation. Occupational therapist aims to facilitate maintaining an optimal level of functioning of the client (child), for that to participate actively in all activities of daily living and social integration.

Introduction

This new field, distinguished from physical therapy occupational therapy, but in particular, restoring and promoting health, wellness and the resolution of those parameters that gives the possibility of functional autonomy and independence as ADL's concerns, work and productive activities, entertainment, games, leisure activities.

Considering this, we located the central methodological principles, the therapeutic program, setting goals and priority issues in particular.

Assessment in occupational therapy is a picture, a flash, an overview of some of the disability of the child at a time. To establish a balance as accurately as possible, each child disability was not enough evidence to see only the results. The manner of execution must observe the child's behavior, gesture or general. For example, when the balance of gripping possibilities has not been sufficiently noticed the hand can grasp, but as it comes. We must not forget that the hand is a member of the upper extremity, trunk and attached itself there is also a second upper limb. It is important to note the reaction of the upper limb, trunk and upper limb reaction other during exploration. Balance at the gesture and the associated difficulties are the most important the occupational therapist. They lead to the achievement of a balance of independence. Appreciate the gesture maintaining posture balance, maintaining attitude and amplitude joints, gripping capabilities, and coordinated bimanual vision-driving.

Mention in the preamble of this works importance of collaboration of TEAM: doctor, physiotherapist, occupational therapist, speech therapist, teacher and social worker in order to achieve the parameters of the therapeutic act as optional.

Working in a day center for children with physical disabilities and associated with a maximum capacity of 24 seats, we had an opportunity to meet cases in which children were totally isolated by the parents, not taking any form of

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recovery or learning till age 11. Working for over 10 years in this center have been in direct contact with them, and based on observations made we concluded that the disease and isolation of its forms:

- Increase self-centeredness, selfishness, instability;
- Reduces freedom initiative, physical mobility, strength, creative ability, and personality will weaken;
- Degrades, alters the temperament, character;
- Enhances emotional life.

Methods:

Given these considerations, the research based on the following assumptions:

1. The first impaired child support in integrating into a class of children the same age (specialized center), where he could assert the intellectual potential, and give vent to their wishes and aspirations.

2. Efficiency Occupational therapy is appreciated to the extent that it manages to fit the children to ensure their well being through the occupations they held.

3. Occupational therapy has an essential role in forming habits of everyday life, the cultivation of skills and work skills (reading, writing) skills in education for various outdoor games and party type.

The actual experiment took place in Betania Day Care Center – Bacău, taking as a case study on D.A. - 8years diagnosed Dyplegie spastic.

He lives with his parents in a small apartment on the 2nd floor.

I interview the mother and child held to obtain information about his abilities, the environment in which it operates or what his dreams are (Snell & Brown, 1993). I have examined performance in self-care activities (ADL) and I noticed that his mother is addicted. He is able to stand, but has an unstable balance, but with moving support is unable to climb stairs alone, is able to dress himself, but he should be supervised. After the interview we obtained three relevant roles: family member, friend and beneficiary of the day care center for children with disabilities.

Sources of information:

- Interview – conducted with mother and child to obtain information about his abilities, the environment in which it operates or what his dreams are. (Snell & Brown, 1993).

- COMP (Law et. Al., 1998) – conducted with the mother and child in day centers to identify the most important occupational problems.

- Observation of the child's occupational behavior during the interview and the COPM.

- The components that contribute to the performance of activities - but we talked about the limitations with the physical therapist, we analyzed PEO (person, environment, occupation) and I made the transaction between them.

Performance components – information should achieved from PT about his Physical limitation; analysis of PEO transaction and NDTFoR can be used to gain additional information about his motor behavior and can be used as a treatment method together with the SensoryFor.

Trough COPM five most important OPIs (Occupational Performance Issues) For the child were identified:

- Not able to dress by himself;
- Not able to wear by himself;
- Not able to move alone without support;
- Not able to finish - one unbuttoning the pants;
- Not able to hold a pencil in hand and write according to his age.

Short-term goals:

1. The child is able to keep a pen adapted into a correct position in 3 weeks;
2. The child is able to maintain the right position out the table work in 2 months;
3. The child is able to make a nod to the shoes in 2 weeks;
4. The child is able to maintain the balance while walking in six months;
5. The child is able to wrap up and unbuttoning buttons in a month.

Long term goals:

1. The child is able to dress and undress himself in three months;
1. Assimilation means of verbal communication, writing, reading in five months;
2. The child will be integrated into a normal school in six months.

TO running program, starting from the balance of any number of targets needed to be conditioned for children's activities.

This had a number of steps to the general rule and schematic phases are marked by searching the following objectives required:

1. Acquisition of new automatism of work: I removed the imitation sincinesis: one upper limb is working while the other one is at rest.

2. Increases gesture speed and effectiveness by improving coordination of the opening gesture of the hand - we used the plate with screws (screwing, unscrewing) and for requesting open hand so I proposed an asymmetric unilateral voluntary opening of standing without order, then order for the progressive development of rhythm. Angular field work required to keep open attitude. I choose for the development of pressure finest games sitting at the table: cube, puzzle, stringing beads on the string, to sting on a line, driving some balls of different sizes and shapes on a string.

3. Improving praxis and gnosis.

4. To give maximum yield sensory-motor information, I asked, if possible fist and finger pulp, the manipulation of natural elements like earth, molding paste, wax, soap. Through this kind of activity we feature material knowledge, especially of its constitution.

5. Choosing side dominance - we used different main activities asymmetric with one hand and a helping hand.

6. Independence - independence experience was conditioned by driving acquisitions (maintaining posture, a good balance, gesture direction, gripping).

7. Autonomy fashion: undressing - from standing the child was taught to pull back the top of the dress, the neckline is to move your chin to your neck, pull your head forward to let it go, then release the arms. Thumb opposition must be firm and not prolonged when the child pulls the sweater to make trace for the head through the neckline. During this time I stood next to the child to give him

confidence and support. Graph 2 shows the dynamic evolution of the dressing to help the beginning to the end regardless.

Trousers - in orthostatic position let the child down the trousers up to the thighs, then sits down to pull the trouser legs. Lying down, he lifted each buttock pulling the pants alternative opposite, then legs to raise them from the pants.

Dressing - introduces children to raise their arms in the sleeves and then into the air and let the neck neckline. If he can not lift arms must first pass the head through the neck neckline. But in this case the sleeves neckline is harder to be found.

Shoes - positions were used to place the child on a bench, feet on the ground, head in front. Tensions raise at the big toe a little difficulty.

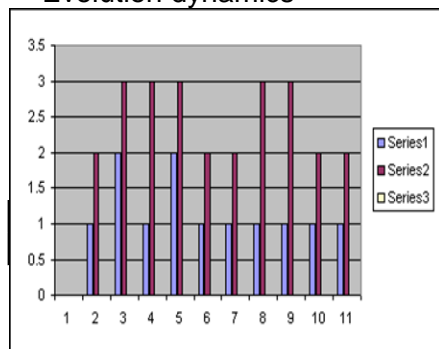
Knotted and looped - The child was taught to cross, forming a round laces and laces to go through this round.

Autonomy graphics - worked first on the small muscles of the fingers by using tweezers with fingers that write (lifting and transfer of small objects from one container to another, working from left to right).

I gave the child the possibility of writing movement practice by washing the table, the windows from left to right using a circular motion I gave him the opportunity to experience the training by cutting out letters from sandpaper shape, tested the use and control of a pencil through geometric mapping of letters and numbers by pattern.

Applying the program can be seen clearly in terms of modifying personal hygiene, behavior, independence; the child is sufficiently prepared for a normal school this year.

Evolution dynamics



1 - Physical help
2 - word help
3 - Independent

1. Use a pencil
2. He dresses himself with his pants
3. Can sting on line
4. The footwear / barefoot is one
5. Can cut single
6. Has a good balance
7. Can string beads
8. It can push a ball
9. He can sign buttons
10. Poate climb stairs alone
11. He knows how to tie shoelaces

Occupational therapy programs have used them for a period determined by the particular age, gender, training, short and long term objectives, priority issues, the initial and final assessments were followed by a new stage of admission, assessment and therapeutic program regarding: ADL's, tailored activities at home, leisure and recreation. Last but not least we used technical adaptation: plantar supporters, canes, support bars in the bathroom, slip mat on the bottom of the tub, special cups and spoons.

Type a meeting was between 35-70 minutes in the 2-3 sessions per week.

As I applied PEOM theoretical model (Strong et al.) - For discovering the transaction between person (P) - Environment (E) - Occupation (O), resulting in discrepancy of performance.

Top-down approach for assessment (Trombly, 1995):

- Meaning – to enable his full participation and ensure improvement of the quality of life
- Function – to achieve independence by improving the functional disruption in the area of self-care activities;

- Form - to establish the quality of occupational performance, its observable features, within the environment, in which it is performed (Hocking, 2001), the following assessment tools can be used: observation – of his occupational performance in self –care activities and play; ICF (International Classifications Function) – to identify the level of his body structure and functioning, participation/restriction activity limitations and environmental factors; PEDI – to obtain more information about his participation in self-care activities.

- Performance components – Information should be achieved from PT about his physical limitation, analysis of the PEO transaction.

In conducting research can be extracted the following conclusions:

1. Confirmation of hypotheses.
2. The ideal occupational therapy should be started as earlier in occupational environments where children develop their activities (at home, in specialized centers, school, street, shops), where a multidisciplinary team (psychologist, doctor, occupational therapist, physiotherapist, speech therapist, teacher, social worker) is able to organize activities and to intervene at all levels in achieving occupational performance.
3. The first substantial support to be awarded a disabled child is to enable him to participate in society by insertion in a class of peers.
4. The therapy program should take into account the needs, desires and satisfactions the child have during his activities.
5. Implementation of medico-psycho-social programs and educational status of knowledge requires consistent actually physically impaired child, the environment in which he operates and the way that manages to adapt to new requirements to integrate in the future.
6. By its means, occupational therapy, determines intellectual effects (it has a normalized influence, lowers the temper, educate work habits), physical effects (restore function), social effects (forming and developing cooperation), economic effects (professional vocations reveals, basing the direction of professional guidance).

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EFFICIENCY STUDY OF REHABILITATION IN TRAUMATIC KNEE LESIONS IN ATHLETES

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Key words: posttraumatic injuries, meniscal lesions, anterior cruciate ligament tears, collateral ligament tears, kinetotherapy, rehabilitation program.

Abstract

Nowadays, frequency of accidents of any nature is receiving more and more attention. One of the numerous chapters in traumatology is represented by traumatic knee lesion. The continuously growing number of knee lesions appears especially in the area of performance sports, such as football, basketball, ski, tennis, etc. The purpose of this work is to prove the role of the physical therapy at the patients with knee injuries. This study outlines the rehabilitation program and suggests specific protocols to expedite a safe and sound return to functional performance undergoing knee injuries. The rehabilitation program is structured in steps according to type of the injury.

Theme motivation

1. The continuously growing number of knee lesions, especially in the area of performance sports.
2. The arthroscopic treatment possibilities – the development of the exploration and treatment of different affections by means of the endoscopy.

Objectives

The aim of the study was to study: 1. Prominence of the advantages of rehabilitation program and the applied therapeutic methods. 2. The benefit appreciation for these patients – students at University of Medicine and Pharmacy “Carol Davila” Bucharest.

Material

The present study has been done on a group of 10 patients, students at University of Medicine and Pharmacy “Carol Davila” Bucharest with different degrees of traumatic knee joint sprains. All the subjects are sportive. The group was divided into categories reflecting differences in age, sex and sports activity.

Ages (years)	Number of patients / %
19-24	5 / 50%
25-30	3 / 30%
32-36	2 / 20%

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Sex	Number of patients
Male	7 / 70%
Female	3 / 30%

Sports activity	Number of patient
Football	4 / 40%
Basketball	3 / 30%
Ski	2 / 20%
Tennis	1 / 10%

Work method

All the posttraumatics benefiting from rehabilitation program after functional analysis. The lesions most frequently were meniscal lesions, anterior cruciate and collateral ligament tears, femoral condyle fractures, proliferative synovitis, followed by lesions of the subchondral cartilage. Because patients differ, rehabilitation strategies must be customized to meet the individual needs of each.

Enhancing functional performance is the main concern during the postoperative rehabilitative period. This is accomplished through hard work and adherence to the prescribed rehabilitation program. Rehabilitation is a several month long program that is designed to stretch and strengthen the knee after injury.

The meniscal tear rehabilitation exercises consisted in: passive knee extension, heel slide, standing calf stretch, hamstring stretch on wall, straight leg raise, wall squat with a ball, step-up, knee stabilization, resisted knee extension.

The anterior cruciate ligament injury rehabilitation exercises consisted in: heel slide, quadriceps isometrics, wall squat with a ball, passive knee extension, prone knee extension, prone knee bends, static and dynamic balance exercises, knee stabilization, resisted knee extension.

Medial collateral ligament sprain rehabilitation exercises consisted in: passive knee extension, heel slide, prone knee bends, straight leg raise, side-lying leg lift, knee stabilization, wall slide, step-up, resisted knee extension.

Lateral collateral ligament sprain rehabilitation exercises consisted in: passive knee extension, heel slide, straight leg raise, prone knee bends, wall slide, step-up, knee stabilization, resisted knee extension.

Results

In our case-book record, majority of the patients gain good results, if they beneficiate of an early and sustained treatment. The therapeutic success was based by a good knowledge of the clinic, adequate physical techniques to each particular case, a proper cooperation between the physiotherapist and the patient. For this result, we consider necessary the complex rehabilitation of the posttraumatic patient.

The statistical analysis of the personal case-book record:

1. Clinical evaluation:

Clinical sign	Anterior rehabilitation program Number of patient with positive clinical sign	After rehabilitation program Number of patient with negative or moderate positive clinical sign
The meniscus' shout	8 patients	10 patients
Appley	8 patients	6 patients (-) 2 patients (moderate +)
Mc Murray	6 patients	4 patients (-) 2 patients (moderate +)
The patella shock	8 patients several hydrarthrosis 2 patients moderate hydrarthrosis	9 patients (-) 1 patient (moderate +)

2. Lysholm score

Lysholm score anterior rehabilitation program Number of patient / number of pct.	Lysholm score after rehabilitation program Number of patient / number of pct.
7 patients / 25-29 pct.	1 patient / 75-84 pct.
2 patients / 30-37 pct.	2 patients / 85-90 pct.
1 patients / 38-44 pct.	7 patients / 91-100 pct.

Conclusions: The knee lesion occur preeminently in young male population, participants in high performance sports. The ligaments tears were present in young patients with repeated microtraumatism. Prevention measures of knee injuries pertain to knowing some rules of preparation for effort of the body. No differences were observed between male and female. At the same time, we obtained some noted functional improvements for the majority of tests.

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SOCIOLOGICAL APPROACHES TO THE PROGRAMMING RESEARCH DESIGN AND MANAGEMENT IN BASKETBALL

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Keywords: basketball, research, manager.

Abstract

The modern sports performance requires a specific sequence in the treatment efficiency. Besides training model is added or junior child's genetic potential, talent selection found particularly timely and adheres to a system of training, conducted in complete harmony with the educational process. The discovery involves a selection of sporting talent in sports facilities by scientific means. Recovery action is specialized talents to develop specific motor skills and sports skills practiced.

Introduction

Motivation and Rationale interdisciplinary research prior to initiating activities in basketball.

In the game of basketball can not be achieved very high performance level unless suitable training begins early, and the discovery and exploitation of talents becomes paramount. The problem is finding talent discovery parameters enabling faster diagnosis and more reliable as the capacity of future performance.

Purpose and research objectives.

Due to its accelerated expansion and development lately, basketball became an enjoyable form of communication, exerting a powerful attraction and mobilization of millions of people on all continents.

News of the research resulting from changes currently going through the entire activity basketball, national and international level, the organization, manageriatul conduct domestic and international competitions, methodology and innovative training and constant development of the game. In this context, those who investigate or observe accelerated evolution of the game of basketball and its transformation into a real scourge of this century and millennium began, can not remain indifferent to the fact that during the current, which improves driving skills sport must considered simultaneously as a fact and as an experience within a theory that takes into account all the determining human action.

Following this study, we bring practical concrete reasons that call for changes to the current methodology of the selection process and coordinates training objective reality in which the sport of basketball performance of children.

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The importance of this paper is based on investigation of the education system reached in the context of the game, and can provide information to support training and orientation training game for children 8-10 years teams. In this study we tried to give a deeper depth of preparedness for children 8-10 years, being known great complexity and responsibility of coaches who work at this level.

We consider as very important any contribution made by specialists (coaches car worked or are working on the children) in the theoretical and scientific aspects related to the activity at this level. Prior Research - sociologică approach in development activities to initiate performance management, learning and assessment in basketball.

Premises prior research.

First we have points to the current Romanian basketball who were and are secured by skill coaches. Conducted research of started from lack of studies and research to handle scientizarea initiation processes, learning and assessment in basketball. The development and spread of basketball are processes which include all age groups, so we must have for each stage or group selection models and appropriate training.

Advance research hypotheses questionnaire survey.

In order to ensure favorable predispositions in the game of basketball is necessary to comply with the following sequence: harmonious physical development, speed of motor actions, coordination, accuracy, flexibility, creative intelligence, in response to acoustic stimuli - optical, aerobic capacity, learning capacity, ensuring thus are best for performance in perspective. Performance Enhancement Get in the game of basketball will be achieved if the selection criteria will follow scientific laws somatic growth and psychomotor development.

Selection should be directed to constitute a complex system that will work with objective indicators (medical, biological, psycho, motor and methods) in pursuit of a complex potential will influence scientific training leading to performance, the character of forecasting. To the extent that it will comply with the overall scheme of skills performanțiale (somatic, functional, motor, psychomotor, psycho) and used in the selection, the preparation will take at the quality and efficiency.

Research methods used.

Theoretical basis of my study was the documentation item. The data represented a summary what was mentioned in writing or researching. To obtain them we asked: manuals, books, contests, books, documents, periodicals, magazines, directories, dictionaries, summary documentation, databases, statistics with the Internet.

The historical method: through research and interpretation of reality in the phenomena of appearance and disappearance of their development, in close connection with historical data conditions: the emergence and evolution of the game of basketball, having regard to the particular characteristics of the training process and competitions in various stages of preparation.

The statistical method - statistics, as a method of processing and interpretation of data collected by observation or experiment, it appears as an auxiliary instrument indispensable for any research in the phenomena studied so far contain a certain degree of probability. Questionnaire-based survey method

Application of the questionnaire was individually personal control. Drafting the questionnaire was established ways of distributing the questionnaire, processing and analysis of results. Question content was considered, the type of questions, types of questions, determine the structure of the questionnaire and order questions. In the last decade, survey methods have become widespread, based on a foundation in establishing the rigorous methodological realization of the conditions of use of sampling, the application questionnaire and interview techniques, data processing and interpretation.

These methods were aimed at opinions, attitudes, opinions and manners to take some decisions and acts of subjects or specific groups, as auxiliary methods of research, complementing the data obtained by other methods and techniques. In various types of investigation, survey methods are used for general knowledge of issues, either for a better understanding of the relationships between several variables stbilitate. They are useful for research to establish ways to formulate hypotheses and then in the next state for verification. Most specialists consider the field survey methods as questionnaires and interviews.

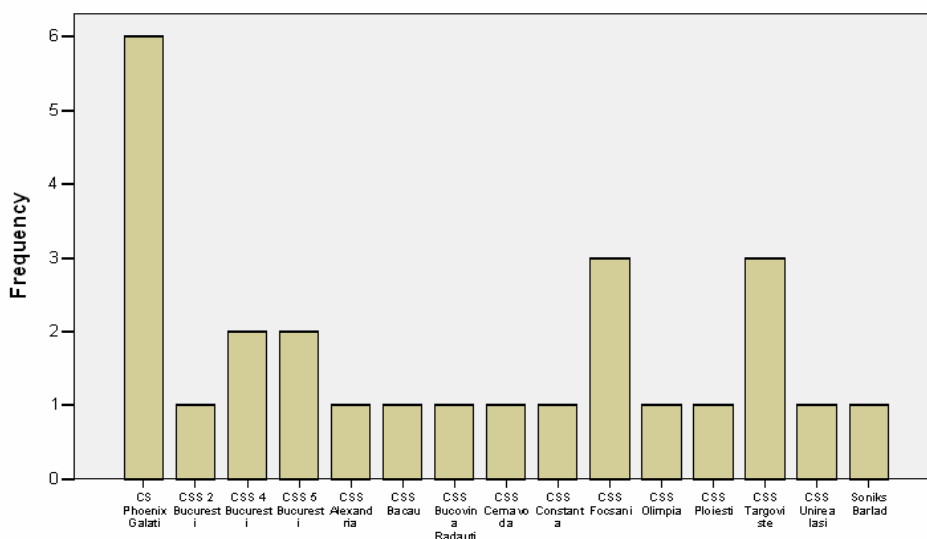
Determination of the respondents.

During November 2009 - February 2010 I attended the basketball tournament (Junior II III and junior) teams organized by CSS Focsani, Galati Phoenix CS and CSS Bacau. The questionnaire developed for the sociological approach in the development of performance management in initiating activities, learning and development addressed basketball coaches present at these tournaments.

Conduct preliminary investigation and analysis of results. Application Questionnaire

The questionnaire was applied to a number of 15 clubs with junior sections II, III and junior basketball participating in the Romanian championship. When he answered a number of 26 coaches.

Sports association represented



Elaborating on the aims of experimental research projects.

The purpose of our scientific approach, theoretically and practically, is to bring our modest contribution to the better selection and training process methodology in the game of basketball, the children, by adapting the content of the training requirements and practical reality.

This concern was driven by reasons of special problems offered for children 8-10 years of basketball work performance, which have traveled a difficult, decisive for the future of their sport, considering that after this step, the step following teams junior, youth and seniors, or to professional basketball.

Basketball modeling this framework will become a complex, diverse and multiple actions organized and carried the team on a uniform performance management concepts, under the leadership coach, who has the responsibility of the entire process.

Conclusions

Complex social phenomenon, with more information from different fields and at first glance subjective and inaccessible, the game of basketball is above all a game to game theory works and eventually can be controlled even in its technical and tactical components.

Selection should be directed to constitute a complex system that will work with objective indicators (medical, biological, psycho, motor and methods) in pursuit of a complex potential will influence scientific training leading to performance, the character of forecasting.

The development and spread of basketball are processes which include all age groups, so we must have for each stage or group selection models and appropriate training.

High-performance basketball now requires a series of bio-psycho-motor skills to be developed at an early age. Some of them lack is an impediment to achieving high performance.

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THE ROLE OF CREATIVE VIZUALISATION IN PAIN MANAGEMENT

Mihai Lucian Ciuntea¹

Key words: pain, Schultz, creative, treatment.

Abstract

This paper seeks to solve internal and external conflicts, facing the most diverse situations that disturb the psychological comfort, pain management and the finding of the inner self.. The regular completion of the specified steps, the expression of the inner messages, the analysis of ideas and their confrontation with reality can successfully contribute in finding a positive and realistic alternative.

Introduction

The today society is increasingly confronted with massive exposure to risk situations, anxiety and anguish, trauma and accidents of all kinds, conflicts and frustrating situations, with the inherent psychological stress of the professional context.

The consequence of these socio-human events lies in reducing the self trust, in deteriorating the self-image and psychological equilibrium, hopelessness, depression, fear, isolation, chronic sadness. Fighting depression and anxiety as well as the management of pain and the multiple loss of biological, psychological and social nature, emotional balance acquisition become an imperative.

For an efficient application of the cognitive therapy in the treatment of pain (prevention, attenuation, improvement, control) is required to initiate a global interpretation, review the phenomenon of pain (etiology, symptoms, evolution, consequences) on a systemic view, as psychological, somatic, physiological, biochemical, social.

Pain, as a consequence of multiple losses, as a result of suffering and adverse events can have profound effect even on human personality.. The magnitude of loss, the quantity and quality of it, the nature of the tragic experiences give the uniqueness of each one in part.

The scope of the research: The study aims to identify how creative visualization helps to reduce pain levels, leading on long-term increased sport performance.

The hypothesis of the research: There are significant differences between the intensity pain of the experimental group before and after autogenic Shultz treatment. The control group that did not apply any treatment will indicate the same intensity of pain throughout the test.

The above assumption can be made explicit by the following hypotheses:

1. The pain intensity of the experimental group will decrease from the application of Schultz autogenic therapy.

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2. The level of the pain intensity in the control group will remain constant throughout the application of the treatment.

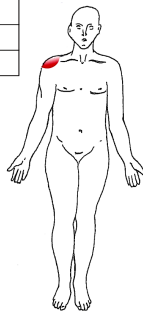
The organization of the research:

Length: The period of therapy was conducted between 01/02 to 01/05/2010, and at its end once again assessing pain intensity in both groups of athletes.

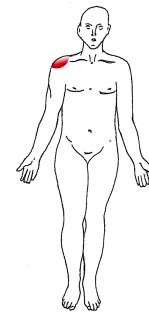
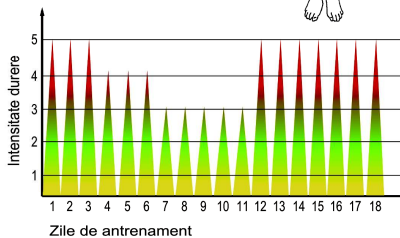
Place of venue: For the Investigations proposed in the research objectives we used a group of subjects consisting of 18 athletes, tennis players of the club SCM Bacau the players having medical problems.

Subjects: Subiecții studiați în cadrul acestei lucrări sunt sportivii clubului de tenis S.C.M. Bacău. Intensitatea durerii fiecărui sportiv a fost studiată pe o perioadă de 18 zile.

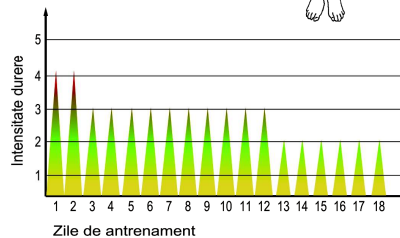
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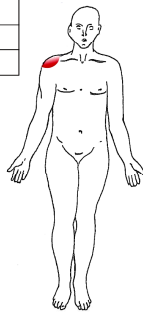
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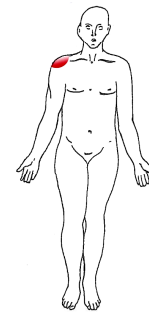
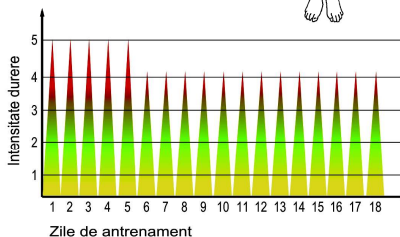
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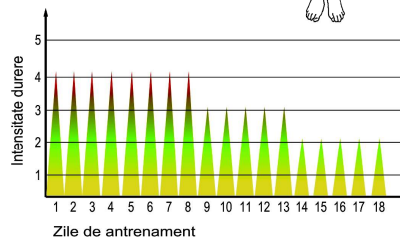
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Varsta	17 ani
Clasament	4 (17-18 ani)



Înainte de terapie



După terapie



Methods :

- The study of the materials of speciality
- The bibliography of speciality
- The autogenic Schultz training

The test: The research consisted of the analysis of pain intensity at the shoulder joint level of each player for a period of 18 days.. Following this analysis, the athletes were divided randomly into two numerically equal groups (control group and experimental group) After this period Schultz autogenic training method was applied to nine of them - the group experiment.. The control group is: V.S.,B.T.,M.R.,P.G.,P.R.,P.B.,I.B.,S.L. and the experimental group is : C.G.,I.S.,I.D.,M.T.,E.S.,R.S.,B.C,M.V.,D.M.

The results of the research and their interpretation : Each competitor both in the control group and the experiment group completed their charts they were provided with the level of th intensity of their pain felt in the shoulder area.

This was done for 18 days. Pain was assessed on a scale from 1 to 5 upwards (1 - mild pain and 5 intens pain). After this period, athletes from the experimental group were applied Schultz autogenic training technique.

Control group was not subjected to this type of workout that was repeated over a period of 90 days.

At the end of this period athletes were asked to reassess the level of pain in the shoulder once again filling the 18 graphs. At this final assessment all athletes of both groups participate.

It is seen from the graphs obtained from the 18 athletes in the first stage that pain level is high during the first days of training, then it goes down for a few days to climb up again at the end of this phase to the initial level, which is rated by many of the athletes as maximum (level 5).

After the three months the experimental group received Shultz autogenic training, graphs show a drop in the level of pain at the end of the retest period. In the early days of training athletes have mid-level pain (2-3) before falling to (2-1) in the end .

This, confirms the assumption that the intensity of pain in experimental group will fall following the application of Schultz autogenic therapy.

During the three months, athletes in the control group continued the training normally without applying any kind of therapy that aims to alleviate the pain in the shoulder. Charts completed during the retest do not indicate major changes in terms of pain intensity. We see the same upward curve almost identical to the first stage of testing.

Hence, the second hypothesis is confirmed, once again showing the importance and effectiveness of creative visualization to pain management.

Below we present the graphs based on the interpretation made above:

Conclusions and proposals :

This study is a proposal highlighting the importance of creative visualization in the sport of performance.

Given the results of this study we consider that the main objective was achieved.

The study showed that athletes who have undergone Schultz autogenic treatment obtained only a lowering of the level of pain using relaxation techniques and psychological control of pain.

The interpretation of the obtained results showed that the assumptions underlying the research performance is confirmed.

We appreciate that the results have important implications in practice of sports activities. They can serve in particular to coaches in supporting athletes in managing pain so present in sports performance, but also work with athletes concerned about self-improvement.

We do not know if there is any sport specialist that does not recognize that psychology is now more involved in achieving great performance.

We believe that if coaches working with athletes will always have regard to the techniques of psychological control of pain, then training will be truly effective and athletes engaged in this type of activity will be able to obtain successful results.

Proof of openness and interest in the issues pursued in this work was the enthusiasm with which both athletes and coaches with whom I worked, have accepted an invitation to participate in the research. We considered important to tell each participant the two test results and their interpretation.

Aware that we were focused only on certain areas of the psychology of the athlete, we will try a conclusion, in view of future studies: it is interesting to watch how other psychological techniques can influence sport performance, how relaxation techniques can be used and are effective at critical moments during games, in decreasing anxiety and tension

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ROLE OF CONTOURGRAMS IN SPOTTING TECHNICAL MISTAKES IN BREASTSTROKE SWIMMING

Ovidiu Galeru¹, Dragoş Furdu²

Keywords: swimming, training, technique, contourgrams.

Abstract

The aim of this research is the study of methodology of the breaststroke swimming technique evaluation; the discovery of defining elements appeared in the swimming technique evaluation methodology, for increased quality standards and effectiveness of the performance activity, by using the underwater video recordings method and processing the footage. As a result of processing the video captures, the contourgrams can have a considerable importance in spotting the technical mistakes of arm stroking in breaststroke swimming, thus having a basis for a new research methodology and perfecting the swimming technique by implementing the teaching units in the training plans.

Introduction

The modern technique comes in the aid of video-training through the digital format, a method that shortens the time of the technical actions. (Colibaba Evuleţ, D., 2007)

The video recording and rendering used during athletic training have the following advantages: the possibility of frame-by-frame analysis, slow-motion or fast-forward analysis and enlarged image for making contourgrams of the movement.

Direct recording. For an underwater recording we need a mobile unit (camera and recorder/camcorder), the operator that handles the underwater camera, batteries for the camera and a monitor. (Bădescu, V., 2004)

Analysis. Minimal equipment includes, with the camera, a laptop and specialized movement analysis software.

Presentation (rendering). In all three situations there are demands regarding the content and proper didactic presentation of the recordings.

Spotting the technical mistakes. In spotting the technical mistakes in competitive swimming styles, a decisive role has the methodology of video recording, the recording angles, and the focusing distance. After a detailed analysis of the recordings, contourgrams for the arm movements during swimming were elaborated, representing the trajectory of the respective movement.

The MaxTRAQ software represents a less expensive and easy to use solution. This program is emphasized much more with the MaxMATE software that analyses the processed data and can give accurate contourgrams.

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Together with the video recordings, specific indexes were measured, in order to evaluate the effectiveness of this particular swimming style.

The study was conducted on a group of 4 Bacău junior athletes II, during 15.09.2009-15.07.2010 at the Bacău swimming pool.

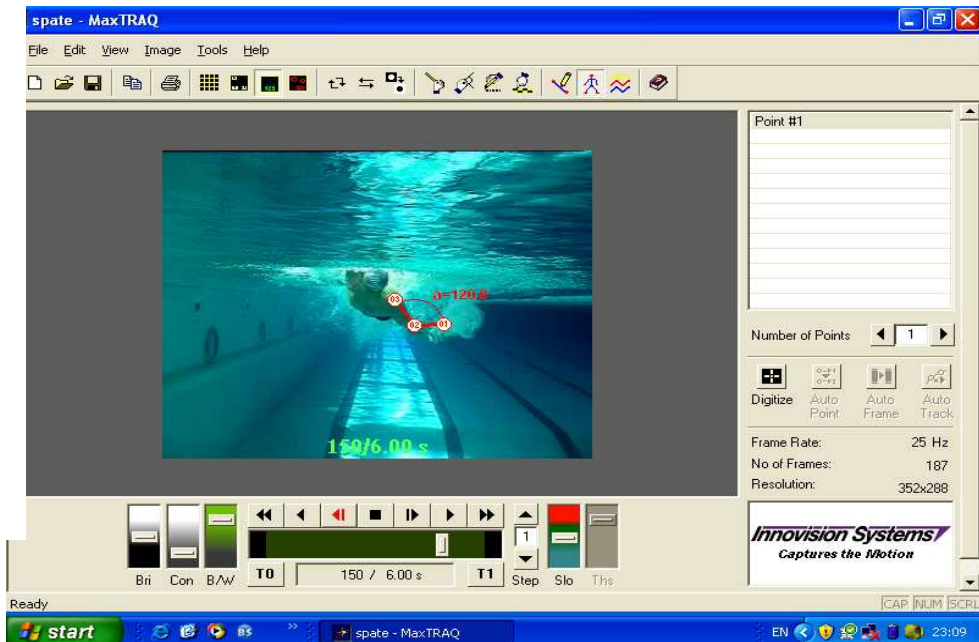


Fig. 1 - MaxTRAQ Programs

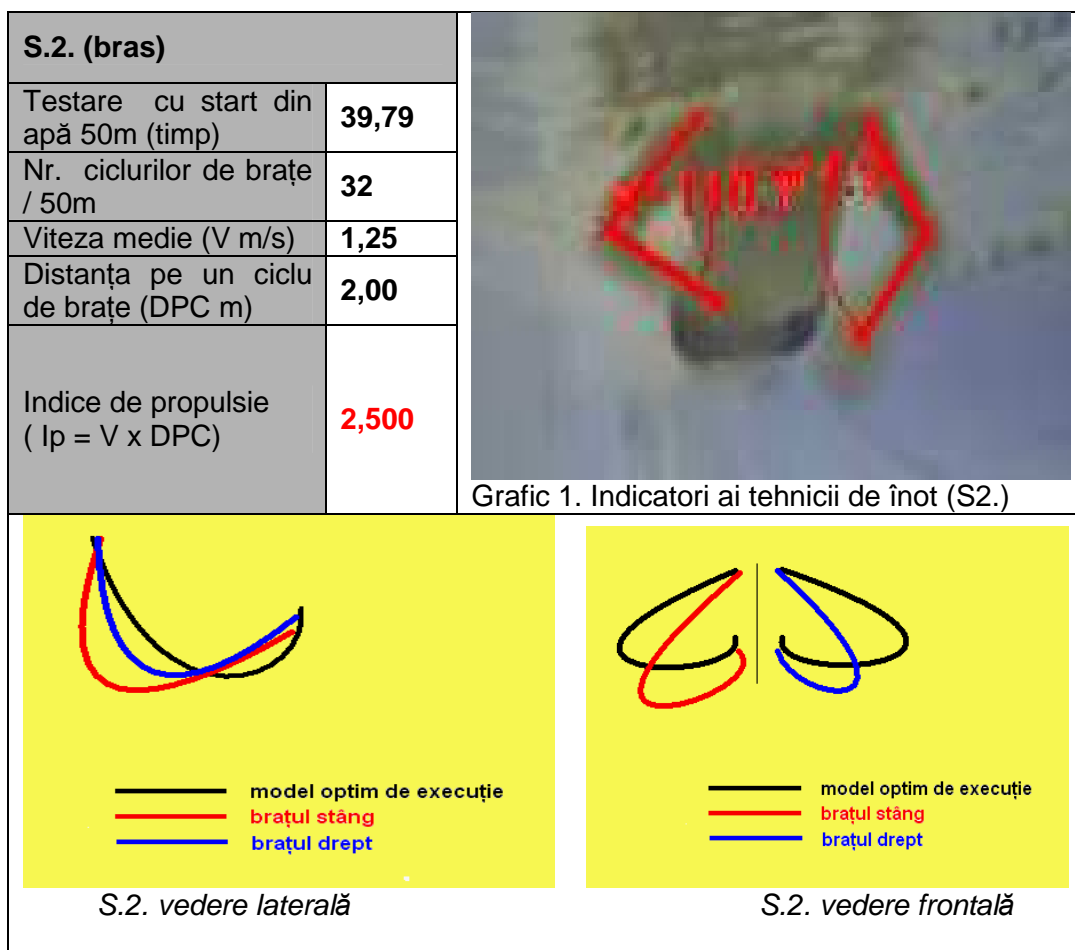
The video recording was made frontally and laterally. The contourgrams are presented as follows, together with the each subject's technical mistakes.

I will present an observational record for one of the studied athletes, record in which we can find the measured technique indexes – DPC. (Marinescu, Gh., 2002)

Subject 2.

Technical mistakes:

- Arm movement: During the stretching and sliding on the water, the arms have a high descending trajectory, which hinders the sliding. The water is grabbed downwards, skipping the side water grabbing phase. During the whole drill, the right arm is much more flexed than the left arm, and at the peak of the flexion, the difference between the two arm is of 43° .
- Leg movement: Because of the precarious mobility in the foot, its flexion and adduction do not allow an optimal support. After the push, because of the downward movement of the arms, an accentuated undulatory movement, which leads to a downwards leg beat, a *mistake forbidden by the rules of any swimming competition*.



Following the contourgrams and specific swimming evaluation indexes analysis, we will be able to intervene in the training process using specific methods and means for correcting the technical mistakes.

The means I have suggested for attaining the aim of this study were: implementing in the annual training plan certain teaching units that contain specific sets of exercises, which will correct the technical mistakes in breaststroke swimming.

Regarding the teaching units, they are similar with classical training programs, only that every allocated group of lessons can be realized with other exercises and contents.

Teaching unit (breaststroke)				
Theme	Objectives / Competences	Contents	Dosage	Evaluation methods
T1	Breaststroke: Correcting the arms' movement	► Floating on your chest, freestyle leg movement, moving only one arm, the other arm being extended forwards.	6x50m p. 30sec.	DPC Video feedback
T2	Breaststroke: Correcting the arms' movement	► Floating on your chest, freestyle leg movement, swimming with both arms.	6x50m p. 30sec.	DPC Video feedback Contourgrams
T3	Breaststroke: Correcting the arms' movement	► Swimming with both arms, performing an undulatory movement at every stroke	2x200 m p.30sec.	Video feedback Contourgrams
T4	Breaststroke: Correcting the arms' movement	► Moving your arms while your legs are supported by a floater	8x50m p. 25sec.	DPC Video feedback Contourgrams
T5	Breaststroke: Correcting the arms' movement	► Moving your arms, keeping your palms not extended, while your legs are supported by a floater	8x50m	DPC Video feedback Contourgrams
T6	Breaststroke: Correcting the arms' movement	► Breaststroke slide, with two arm strokes for one leg stroke	4x100 m p.30sec.	Video feedback
T7	Breaststroke: Correcting the legs' movement	► Breaststroke swimming using only the legs with hands behind your back	6x50m p.25sec.	Video feedback
T8	Breaststroke: Correcting the legs' movement	► Vertical breaststroke leg strokes	8x40sec. p.25sec.	Video feedback
T9	Breaststroke: Correcting the legs' movement	► Breaststroke leg strokes, floating on your back	8x50m p.25sec.	Video feedback

T10	Breaststroke: Correcting the legs' movement	► Floating on your chest, right arm extended on the water, left arm supported by the flexed left leg, you swim using only your right arm and leg	6x50m	Video feedback
T11	Breaststroke: Correcting the start and return launch	► performing three complete arm tractions, with a complete arm-leg and breathing coordination	4x50m p.1min	Video feedback
T12	Breaststroke: Coordination	► Performing two leg beats every stroke.	6x100 m	DPC Video feedback Contourgrams

Conclusions

We think the traditional swimming technique teaching-learning-evaluation activities can be structured and re-thought; in this sense, a first attempt of modernizing the process is focused on the teaching-learning-evaluation activities, according to the praxiological circuit model, in which the instructional objectives are the ones that condition the other didactic design operations.

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STUDY ON THE USE OF DYNAMIC GAMES AND COMPETITIONS WITH THE SOCCER BALL IN PHYSICAL EDUCATION LESSONS IN GRADES III-IV

Ioan Silviu Pavel¹

Keywords: dynamic games, races, soccer ball, physical education lesson.

Abstract

Starting from a concrete analysis of data from records, conversations with teachers specialized and specialized research materials, this research aims to find viable arguments about the necessity of using movement games in physical education classes Sport for grades III - IV.

Introduction

Teaching physical education classes III - IV, has an important role both in terms of its positive influence on the development process and strengthen the body and as a teaching tool designed to help students know, their more rapid adaptation to new school requirements, teams clot formation classes and active climate study. Through its years depending on the purpose, dynamic game is both a method and a means of physical education.

Dynamic games, attractive by their originality, spectacular character, the status conferred on emulation, ensure greater efficiency in both the density increase physical education class and in the results obtained.

After Ghe. Balint² (2009, p. 35) "Dynamic Games is a complex exercise with cumulative effects on the body, requiring complex motor events, their effect is conditioned by the objective pursued by the teacher in the lesson. Unlike other operating systems, which have well-defined place in the lesson, the dynamic game can be made at any time or link of the lesson, regardless of materials or weather conditions existing when the school year "

The same author states that the knowledge of dynamic games is very easy. These should include movements known to students, to be accessible, attractive and always possible in November. With special effects, dynamic games can be used in the introductory lesson to the gradual engagement of the body into the effort and skill development. In this case games will be shorter in duration and used as mere means.

The main reason to choose the research topics is our permanent concern to improve physical education class design, specifically for use in physical education classes that will drive means ensuring that maximum efficiency of educational process specific to this subject and this age group.

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² Balint Gheorghe - Dynamic games - an alternative to optimize the physical education class in middle school football themes, Ed PIM, Iasi, 2009.

Materials and methods

The aim of our research is to identify the current level of use of dynamic games and competitions with the soccer ball in physical education lessons in grades III-IV school in Bacau, teacher perceptions of the need and importance of using these dynamic games and races soccer ball in physical education classes.

In this regard, in carrying out this research, we established the following working hypotheses with which we work throughout this study:

1. it is assumed that most physical education teachers in Bacau dynamic games and do not use the soccer ball races in physical education classes for grades III-IV;

2. it is assumed that the use of dynamic games and competitions with the soccer ball in physical education classes for grades III to IV is necessary and ensure that the objectives of school physical education.

Our research tasks were:

- Theoretical documentation on dynamic games and competitions with the soccer ball and use their physical education lesson Romanian and international-Development of the questionnaire to know their role, and place emphasis on dynamic games and competitions with the soccer ball in physical education lessons in grades III - IV;

- Identify groups of people that will be applied to a questionnaire prepared and their consent is sought to be questioned;

- Centralization of the results of the survey, analysis and interpretation of these results;

- Removal of the final conclusions of the study and elaboration.

Research methods used were: the study of bibliographic material, observation, survey (questionnaire), recording, processing and graphical results.

Developed questionnaire was distributed to 30 teachers of physical education in the city of Bacau. Significantly for our study is that all subjects who received these questionnaires have kindly respond to us.

For a better understanding of our study, we consider it necessary to present this questionnaire.

QUESTIONNAIRE

1. In physical education class and races using dynamic games with the soccer ball?

Too little

Yes

No

2. Consider the use in physical education class dynamic games and competitions with the soccer ball helps achieve its objectives?

Too little

Yes

No

3. Think that the games dynamic soccer ball races may contribute to the development of the pupils of driving qualities III and IV?

Too little

Yes

No

4. The weight given to dynamic games and competitions with the soccer ball in the national curriculum development is enough?

- No
- I have no opinion
- Yes

5. Consider the use in physical education class moving games and races with the soccer ball may positively influence the moral qualities of students in grades volitional III and IV?

- Too little
- Yes
- No

6. You use the lesson of physical education in primary races, dynamic games and the soccer ball?

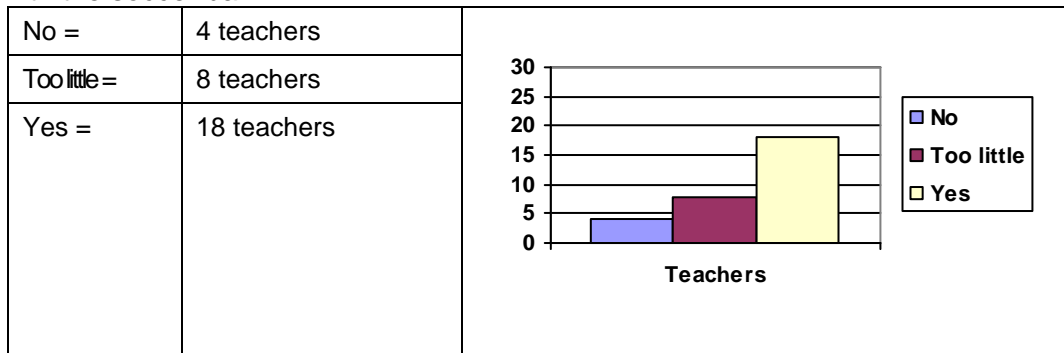
- Too little
- Yes
- No

Thank you for your time!
Date Signature

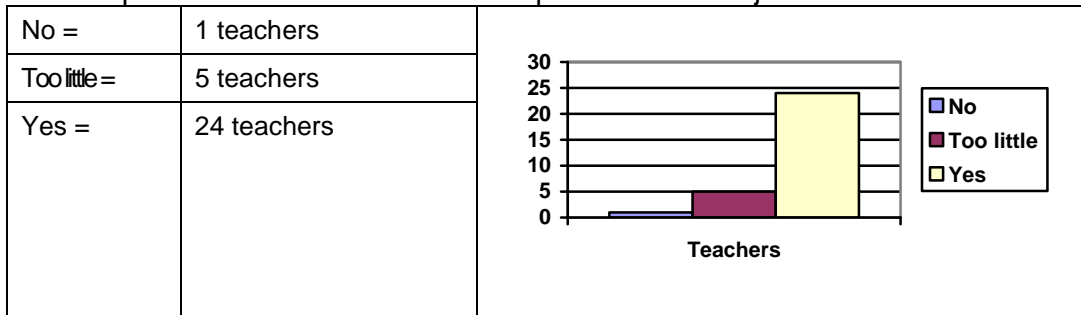
Results

Following completion of questionnaires by the teachers from different schools in the city of Bacau emerged following results:

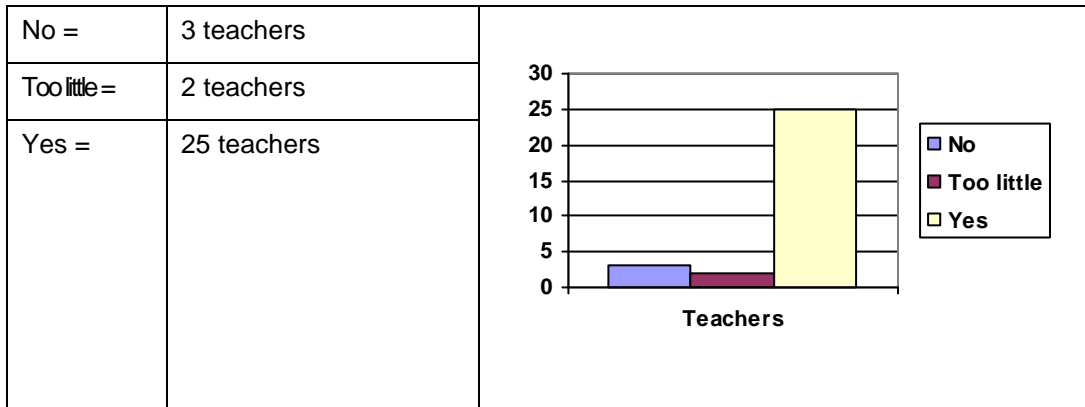
Question 1: "In physical education class and races using dynamic games with the soccer ball?"



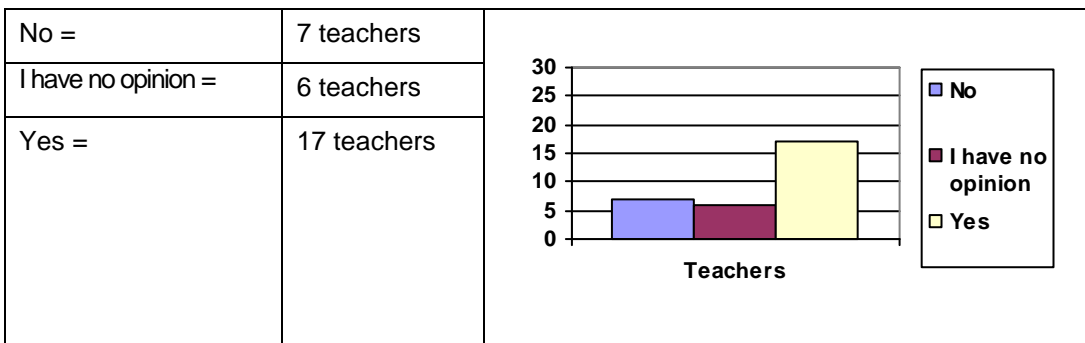
Question 2: "Consider the use in physical education class dynamic games and competitions with the soccer ball helps achieve its objectives?"



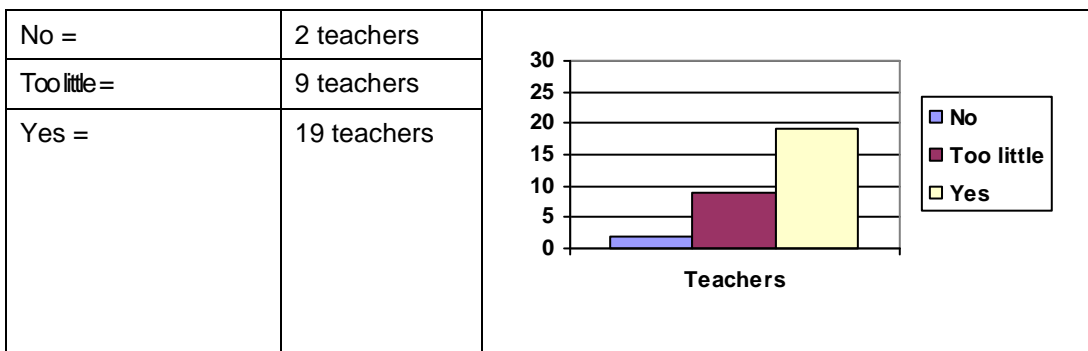
Question 3: "Think that the games dynamic soccer ball races may contribute to the development of the pupils of driving qualities III and IV?"



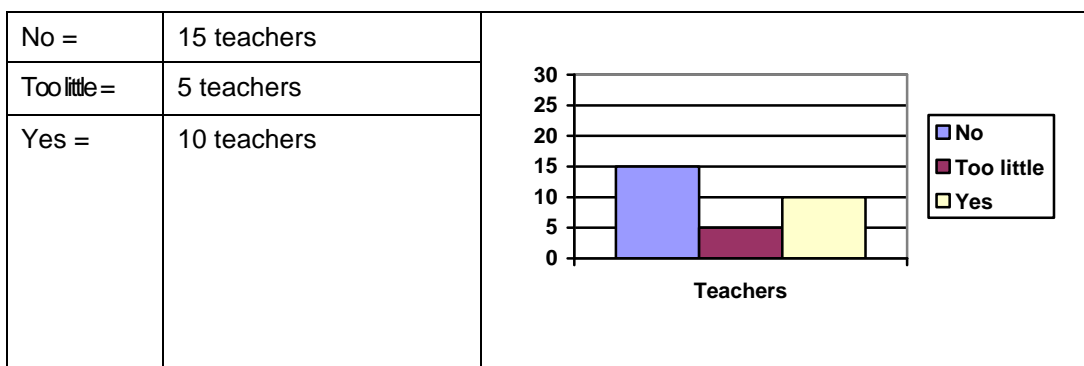
Question 4: The weight given to dynamic games and competitions with the soccer ball in the national curriculum development is enough?



Question 5: .Consider the use in physical education class moving games and races with the soccer ball may positively influence the moral qualities of students in grades volitional III and IV?



Question 6: You use the lesson of physical education in primary races, dynamic games and the soccer ball?



Interpretation of results

As could be observed on presentation of results of the questionnaire we tried to introduce a form to highlight its findings.

So one question: "In physical education class and races using dynamic games with the soccer ball?" Of 30 teachers surveyed responded with No 4, 8 with too little, 18 to Yes, so we can say that most those surveyed used in dynamic games lesson and soccer ball races remaining percentage of respondents with no or too little are insignificant.

Question 2: "Do you think that using the physical education class dynamic games and competitions with the soccer ball helps achieve its objectives?" 24 teachers answered yes, 5 to 1 with too little and not so we can say that dynamic games are used in physical education class and sport by most teachers, especially as they are recognized as means to achieve the objectives of physical education and sport.

Question 3: "Do you think that dynamic games and competitions with the soccer ball can help develop pupils motive qualities of III and IV?" Brings into focus the fact that using dynamic games and races with the ball football, motor skills can be developed. As confirmed by the responses given by 25 teachers interviewed.

For question 4, "The weight given to dynamic games and competitions with the soccer ball in the national curriculum development is enough?" 17 of the teachers surveyed felt that would be a greater weight in terms of using movement games and seven of them considered that would not be given greater weight and, to our surprise, six teachers have no opinion.

For question 5, "consider that the use of the physical education class moving games and races with the soccer ball may positively influence the volitional moral qualities of the students in grades III and IV?" 19 teachers were considered III-IV classes that students can be positively influenced by using ball football competitions and dynamic games, 9 have found that too little and found the two dynamic games and competitions with the soccer ball may not positively affect volitional moral qualities.

Question 6: "You use the lesson of physical education in primary races, dynamic games and the soccer ball?" Confirms that dynamic games and the soccer ball races are used too little in the physical education classes, but most of them consider necessary and recognize that this means very little use.

After analyzing the questionnaire answers given can see that most teachers found it necessary to use dynamic games and competitions with the soccer ball in physical education classes, which lead to the achievement of physical education and the development of basic motor qualities.

Conclusions

Before developing the final conclusions of this study should recognize that the results we can not generalize to all schools in Romania since this study was conducted only in Bacau, and because the number of respondents is very low, which compels us to recognize that our study in this regard, it is not objective.

Following the completion of our study and processing and interpretation of data, we are able to say that:

1. Hypothesis No. 1, originally set, was denied. The hypothesis is based on the assumption most physical education teachers Bacau dynamic games and do not use the soccer ball races in physical education classes for grades III-IV, and research proves otherwise

2. Hypothesis No. 2, initially set has been confirmed. Subjects were interviewed mostly said that the use of dynamic games and competitions with the soccer ball in physical education classes for grades III to IV is necessary and ensure that the objectives of physical education in schools.

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MATERIALS AND EQUIPMENT USED IN PREPARING TEACHING AIDS FOR STUDENTS FROM SECOND YEAR TO BALANCE THE DEVELOPMENT AND IMPROVEMENT OF SLIDING ON SKIS

Silviu-loan Pavel¹

Keywords: balance, lesson, students

Abstract

Starting from the idea that in our country the latest literature is completely missing and coaches have come up with something new for a long time, I practice after the old ski school is no longer practical for a very long time, in this paper, we proposed to develop a number of ways of driving new development and improvement of the balance of alpine skiers for the purpose of obtaining better results using some of the material balance in the development of aids and appliances.

Introduction

Starting from the idea that our country literature is completely missing the latest and coaches have come up with something new for a long time, are as old school ski training is no longer practical for a long time in this work, we plan to develop a number of ways of driving new development and improvement of balance in alpine skiers to obtain better results using some material balance development and supporting devices.

In this research, we proposed to develop a number of ways of driving new development and improvement of balance in order to obtain better results using some of the material balance in the development of aids and appliances. The hypothesis that left this research was:

1. Use of materials and devices supporting the students of II leads to significant improvement in the development and improvement of balance?

In the present research we used the following methods of research for better analysis and disclosure of results.

Experiment

The experiment is as essential feature that makes it possible to establish causal relations between events. It allows explaining the phenomenon studied. The experiment should always show the experimental group and the control group will run the same program, without any influence of a variable. At the end of the experiment will be able to differentiate between one group and another.

Test Method

To highlight the development of students, to retrieve and compare the results obtained, objectified entire activity, we used several tests. These tests were

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aimed primarily measure the evolution of development of their motor qualities. The research was conducted on eight students, who practice skiing.

They were selected from the 2nd year of study for a better representation of data and understanding of the tests applied.

I made test apparatus consists of a metal ball (slightly smaller than a handball ball), which is fixed to a wooden board approximately 60 x 30 cm, the student must come up and to maintain as much balance, which will automatically lead to improved and improving balance.

Material and method

To demonstrate a possible increase in athletes improve balance to the new exercises in their training, we divided into 2 equal groups. A group will be normal training and exercises using conventional means and the other group using the device also conducted training exercises and some classical.

The training took place over 3 weeks, every day, Monday through Friday. To demonstrate the difference between the 2 groups I have decided to make two evaluations of children: initial and final. Initial testing will be done before the start of the preparatory period to see to what extent are children (where we go), and the final preparation is done at the end to see the final results. This assessment will be nothing but tests measuring the balance will be the same in both evaluations.

Tests used in research

Flamingo test, assess static balance. The test includes a metal stand 50 cm long, 4 cm and 3 cm wide. Athlete will sit one foot (your choice) on support leg flexion then free hand will catch the same part of the leg. Other upper limb is stretched and oriented obliquely upwards. The coach will help in fixing this position, then leave it open and start the timer athlete. On reaching the ground with any body part the examiner will stop the timer.

Postural stress test the athlete is standing, the heel is a straight line, link a waist strap to the athlete, having a backup ring that is attached to a rope that passes over a pulley. At the end of the rope is attached weights progressive amount equal to a percentage of body weight of subject: 1.5%, 3% and 4.25%.

Measure the weights are hung for each subject during both stand without arms swing forward, not flexion trunk is not step back or step sideways or even fall.

Results from initial testing

Tabel no.1 - Table of initial test results to test experimental group Flamingo

Line no.	Code subjects	Time
1.	B.A	1'00''34
2.	M.M	1'00''67
3.	A.B	1'01''45
4.	R.P.I	0'59''46

Tabel no.2 - Initial test results table to test the control group Flamingo

Line no.	Code subjects	Time
1.	P.D	0'59''13
2.	U.C	1'01''34
3.	V.C	1'00''56
4.	D.A	1'00''89

Subjects investigated in initial testing with the test results were close Flamingo, which leads to the idea that their preparation time is close, in terms of balance.

Table no.3 - Initial test results table test Postural stress in the experimental group

Line no.	Code subjects	Time achieved with 1,5% weight	Time achieved with 3% weight	Time achieved with 4,25% weight
1.	B.A	1'30''34	1'21''56	1'11''32
2.	M.M	1'29''44	1'20''45	1'12''54
3.	A.B	1'30''56	1'20''67	1'10''76
4.	R.P.I	1'29''13	1'21''78	1'11''43

Table no.4 - Initial test results table test Postural stress in the control group

Line no.	Code subjects	Time achieved with 1,5% weight	Time achieved with 3% weight	Time achieved with 4,25% weight
1.	P.D	1'31''36	1'21''12	1'11''75
2.	U.C	1'30''78	1'20''32	1'12''43
3.	V.C	1'31''69	1'21''33	1'11''32
4.	D.A	1'30''45	1'19''23	1'12''56

Stress testing and test posts and to test the Flamingo is apparent near the preparation (capacity subjects).

Next we present the results of both control and experimental groups at final testing:

Table no.5 - Final test results from the experimental group. Flamingo

Line no.	Code subjects	Time
1.	B.A	0'54''56
2.	M.M	0'55''76
3.	A.B	0'56''45
4.	R.P.I	0'52''43

Table no.6 - Final test results from the control group Flamingo test.

Line no.	Code subjects	Time
1.	P.D	0'57''13
2.	U.C	0'59''87
3.	V.C	0'59''87
4.	D.A	0'59''34

Final test results from the experimental group.

Tabel no.7 - Postural stress test.

Line no.	Code subjects	Time achieved with 1,5% weight	Time achieved with 3% weight	Time achieved with 4,25% weight
1.	B.A	1'24''13	1'15''23	1'05''23
2.	M.M	1'24''65	1'14''23	1'06''54
3.	A.B	1'24''45	1'15''76	1'05''75
4.	R.P.I	1'23''54	1'13''65	1'04''65

Final test results from the control group.

Tabel no.8 - Postural stress test.

Line no.	Code subjects	Time achieved with 1,5% weight	Time achieved with 3% weight	Time achieved with 4,25% weight
1.	P.D	1'29''89	1'19''87	1'09''67
2.	U.C	1'29''13	1'18''98	1'10''54
3.	V.C	1'29''23	1'20''67	1'09''34
4.	D.A	1'28''34	1'18''67	1'10''87

From these tables shows that athletes in the experimental group improved their results rather than to control group athletes, after specific training for development and improvement of balance, using a special device.

On these results, we managed to do some graphics, for comparison, an athlete got the choice of the experimental group, with a sports group took control, and some graphics of the evolution of the two during the second test, the time taken front on the experiment.

Conclusions

Upon completion of this study, we can say that the assumptions were fully confirmed. Of data and their interpretation, we are able to shape the following findings:

Means of operation used by me in training and development in alpine skiing improvement balance contributed to a considerable improvement in the development and perfection of balance.

All means drive developed by us have been a true reference work, current and important to our field.

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STUDY ON THE EXPRESSION OF EXPLOSIVE FORCE TO FREE FIGHTING ATHLETES AGED 15-17 YEARS

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Key words: free fighting, explosive force, energetical parameters.

Abstract

Increasingly there is a concern for more research into the development of motor qualities in children practicing sport. An important aspect of motor sports development practitioners play free fighting blasts. Therefore we intend to present and interpret experimental data measured parameters related to the blasts and to provide coaches and athletes such data for use in educational instructional process.

Introduction

Force is the capacity that living beings have, to make an effort to perform physical actions by muscle strain; strength. (DEX, 1996)

In free fighting, force is an important motor skill which can be developed through specific training, so the coaches and the athletes give enough of their time to apply some special programs to develop it.

In general, the game in free fighting means to apply technical-tactical techniques by a fighter, while the partner, the other fighter has to counter it opposing a force. Therefore, there is a necessity to develop this important segment of the psycho-motrical skill, which is force. In free fighting, the force can have different forms, and the force as speed or the explosive force, represent the capacity of the neuro-muscular system to counter the resistance by an enhanced speed of contraction. (Deliu, D., 2008, p. 61)

For measuring the parameters of this explosive force, it can be applied efficiently the method „Miron Georgescu - modified”, also named the test of the „15 jumps”. This method of measuring the motrical skills was published for the first time, in its original form, in 1953, by dr. Miron Georgescu in „Physical Culture and Sport” magazine.

The hypotheses

The athletes of free fighting aged 15-17 years old have the possibility to improve their explosive force with a good knowledge of the energetical and control parameters calculated and evaluated through the specific test of the method „Miron Georgescu - modified”.

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Subjects and methods

The aim of this research is to evaluate the energetic parameters and the control parameters for the target group and to propose solutions for their improving which will help the coaches in their work with free fighting athletes aged 15-17.

The methods used in this experiment are: the study of the bibliographic materials, the experiment, the method of the tests, the statistical-mathematical method. To carry out the experiment we used the Miron Georgescu modified test.

This test highlights the overall resources of energetic nature of an athlete, based on the idea that lower limbs are used in every branch of sport, and jumping on two feet and on one leg are natural. Testing was conducted using a more accurate sensory plate using the method on a facility consisting of a sensory plate, and computer software. The software is designed to transmit data from card to computer.

Testing consists in the execution of three series of "15 jumps like a ball" , with the condition of achieving in each jump, the maximum height of detachment and a minimum time of contact with soil (from where the name " MGM -15 – Miron Georgescu modified test with 15 vertical jumps ")

The first series of jumps are executed on both feet. The second series of jumps are executed on the right leg and the third series consists of jumps on the left leg, with pauses given by the speed at which the data is processed by the computer (30" –1').

The subject of the experiment are 10 free fighting athletes from css one□ti, aged 15-17 years old, practicing this sport for at least 2years.

Table nr. 1 – The characteristics of the experimental group

Name	Age	Height	Weight
HO	15	167	57
PS	15	178	55
CC	15	154	54
PS	15	154	45
LA	16	170	59
GR	17	185	68
HG	17	170	63
RR	17	174	66
GG	17	187	92
PA	17	174	72

Following data collection and calculations of media, standard deviation for the athletes included in the test we can notice aspects as:

- age is in the range 15-17 years old;
- height is in the range 1,54 – 1,87 m;
- weight – is in range 45-92 kg;
- the period length of practicing free fighting is in the range 2 and 6 years.

The results of the research

Table nr. 2 - The indicators of appreciation in the test of vertical jumps on both feet for free fighting athletes.

Name	(PU)	(H_flight)	(V_rep)	(CVE)	(CVS)	(TSOLm)	(HMax)	(PMr)	(S.PMr)	(PMp)
HO	4,59	0,33	0,19	3,81	10,86	0,17	0,37	4,89	9	5,13
PS	4,79	0,33	0,17	3,88	9,87	0,14	0,37	5,11	7	5,3
CC	4,48	0,31	0,19	4,14	12,92	0,15	0,36	4,88	6	5,06
PS	3,54	0,23	0,21	4,16	3,16	0,19	0,26	3,8	3	3,94
LA	4,23	0,3	0,21	5,35	6,85	0,18	0,35	4,55	9	4,77
GR	3,83	0,24	0,17	9,16	6,18	0,16	0,32	4,58	9	4,71
HG	3,5	0,21	0,18	11,31	7,92	0,16	0,26	4,04	4	4,06
RR	3,9	0,25	0,19	6,26	9,64	0,17	0,31	4,34	7	4,53
GG	4,3	0,3	0,2	8,11	11,01	0,16	0,4	5,14	9	5,36
PA	4,43	0,32	0,21	3,47	6,48	0,19	0,37	4,72	13	4,9
M	4,16	0,282	0,192	5,965	8,489	0,167	0,337	4,61	7,6	4,776
AS	0,44	0,04492	0,0155	2,701	2,899	0,01636	0,0481	0,44	2,8752	0,485
Max	4,79	0,33	0,21	11,31	12,92	0,19	0,4	5,14	13	5,36
Min	3,5	0,21	0,17	3,47	3,16	0,14	0,26	3,8	3	4,06

* Average Unit power (PU), Average flight height (H_zbor), Average ground time (V_rep), Coefficient of energetic variability (CVE), Coefficient of structural variability (CVS), Minimum time on ground (TSOLm), Maximum height (HMax), Maximum unit power (PMr), Jump with the maximum unit power (S.PMr). Possible maximum unit power (PMp)

Table nr. 3 - The indicators of appreciation in the test of vertical jumps on left leg for free fighting athletes.

Name	(P U)	(H_flight)	(V_rep)	(CVE)	(CVS)	(TSOLm)	(HMax)	(PMr)	(S.PMr)	(PMp)
HO	2,8	0,18	0,25	2,38	6,81	0,23	0,2	3,01	4	3,13
PS	2,5	0,16	0,27	3,77	4,29	0,25	0,19	2,81	2	2,89
CC	2,8	0,19	0,27	4,12	2,47	0,26	0,22	3,13	8	3,14
PS	1,8	0,11	0,27	7,91	6,17	0,24	0,15	2,35	10	2,45
LA	2,2	0,14	0,28	5,94	6,65	0,25	0,16	2,54	9	2,58
GR	1,9	0,12	0,28	11,13	3,89	0,27	0,15	2,35	10	2,36
HG	1,8	0,11	0,3	14,23	8,99	0,25	0,14	2,36	6	2,37
RR	2,0	0,13	0,28	7,5	5,95	0,26	0,16	2,5	5	2,51
GG	2,5	0,16	0,28	4,34	4,35	0,26	0,19	2,76	8	2,81
PA	2,4	0,19	0,36	5,48	7,49	0,33	0,23	2,87	5	2,94
M	2,3	0,149	0,284	6,68	5,706	0,26	0,179	2,66	6,7	2,71
AS	0,3	0,03143	0,0295	3,651	1,943	0,02708	0,0314	0,28	2,710	0,30
Max	2,8	0,19	0,36	14,23	8,99	0,33	0,23	3,13	10	3,14
Min	1,8	0,11	0,25	2,38	2,47	0,23	0,15	2,35	2	2,36

Table nr. 4 - The indicators of appreciation in the test of vertical jumps on right leg for free fighting athletes.

Name	(PU)	(H _{flight})	(V _{rep})	(CVE)	(CVS)	(TSOL _m)	(HMax)	(PMr)	(S.PMr)	(PMp)
HO	2,9	0,2	0,27	5,4	6,34	0,24	0,25	3,34	8	3,49
PS	2,2	0,14	0,28	2,66	4,81	0,27	0,15	2,4	5	2,44
CC	2,4	0,16	0,29	7,19	5,82	0,27	0,2	2,84	6	2,98
PS	1,8	0,11	0,28	5,64	5,3	0,26	0,13	2,05	3	2,15
LA	2,2	0,13	0,25	4,33	2,9	0,24	0,16	2,53	7	2,56
GR	2,2	0,13	0,26	2,95	2,47	0,25	0,15	2,43	2	2,46
HG	1,2	0,07	0,29	22,67	7,98	0,26	0,11	1,86	9	1,99
RR	2,2	0,14	0,27	5,56	6	0,25	0,16	2,45	3	2,57
GG	2,3	0,14	0,27	7,2	5,65	0,25	0,18	2,74	6	2,84
PA	2,3	0,15	0,31	8,13	4,73	0,28	0,2	2,69	8	2,87
M	2,2	0,14	0,277	7,173	5,2	0,257	0,169	2,533	5,7	2,635
AS	0,4	0,03	0,017	5,73	1,612	0,0134	0,0401	0,413	2,406	0,432
Max	2,9	0,16	0,29	22,6	7,98	0,28	0,25	3,34	8	3,49
Min	1,2	0,07	0,25	2,66	2,47	0,24	0,11	1,86	2	1,99

Following the processing of data we can highlight a series of aspects, which are presented in tables 2, 3 and 4.

The average unit power (PU) has values in the range 3,5 and 4,79 W/kg.body for the detachment on both feet, in the range 1,81 and 2,87 W/kg.body for detachment on left leg, between 1,28 and 2,96 W/kg. body for detachment on the right leg and the average values of 4,16 W/kg body, 2,33 W/kg.corp and, respectively 0,22 W/kg. body.

The average height of flight (H_{flight}) has values in the range 21 and 33 cm and an average value of 28 cm at the detachment on both feet, between 11 and 19 cm with an average of 14,9 cm at the detachment on left leg, between 7 and 16 cm with an average of 14 at detachment on right leg.

Ground times (V_{rep}) have values in the range 0,17 and 0,21 seconds and an average value of 0,19 seconds at the detachment on both feet, values in the range 0,25 and 0,36 seconds with an average of 0,28 seconds at detachment on left leg, values in the range 0,25 și 0,29 seconds, with an average of 0,277 at detachment on right leg.

The coefficient of energetic variability (CVE) has values in the range 3,47 and 11,31 seconds with an average value of 5,965 for both feet, range 2,38 and 14,23 with an average value of 6,68 at detachment on left leg, between 2,66 and 22,67 with the average value of 7,173 for the right leg.

The coefficient of structural variability (CVS) has values 3,16 and 12,92 with an average of 8,489 for jump on both feet, between 2,47 and 8,99 with an average value of 5,706 at detachment on left leg, between 2,47 and 7,98 with an average value of 5,92 at detachment on right leg.

Minimum time on ground (TSOL_m) has values in the range 0,14 and 0,19 seconds with an average value of 0,167 seconds at detachment on both feet, 0,23 and 0,33

seconds with an average of 0,26 seconds at detachment on left leg, between 0,24 and 0,28 seconds with an average of 0,257 seconds at detachment on the right leg.

The maximum height (HMax) has values between 0,26 and 0,4 cm with an average of 0,337 cm at detachment on both legs, between 0,15 and 0,23 cm with an average of 0,179 cm at detachment on left leg, between 0,11 and 0,25 with an average value of 0,169 at detachment on the right leg.

The maximum conducted unit power (PMr) has values between 3,8 and 5,14 W/kg.body with an average of 4,61 W/kg body for both legs, between 2,35 and 3,13 W/kg.body with an average of 2,668 W/kg.body for the left leg, between 1,86 and 3,34 W/kg.body with an average of 2,533 W/kg.body for the right leg.

Jumping with the minimum conducted unit power (S.PMr) has values between 3 and 13 W/kg.body with an average value of 7,6 W/kg body for detachment on both legs, between 2 and 10 W/kg body with an average of 6,7 W/kg body at vertical detachment on left leg, between 2 and 8 W/kg body with an average of 5,7 W/kg at detachment on right leg.

Maximum possible power unit (PMp) has values between 4,06 and 5,36 W/kg.body, with an average value of 4,776 W/kg body for jumps on both legs, between 2,36 and 3,14 W/kg.body with an average value of 2,718 W/kg.body at detachment on left leg, between 1,99 and 3,49 W/kg.body with an average body of 2,635 W/kg.body at vertical detachment on right leg.

Table nr. 5 – The energetic parameters obtained from the three tests of the Miron Georgescu – modified test for the free fighting athletes

Name	(PUA)	(PUD)	(PUS)	PUD - PUS	PUD + PUS	(PUA)- (PUD+PUS)
HO	4,59	2,96	2,87	0,06	5,83	-1,24
PS	4,79	2,26	2,57	-0,31	4,83	-0,04
CC	4,48	2,43	2,83	-0,4	5,26	-0,78
PS	3,54	1,86	1,88	-0,02	3,74	-0,2
LA	4,23	2,29	2,28	0,01	4,57	-0,34
GR	3,83	2,24	1,95	0,29	4,19	-0,36
HG	3,5	1,28	1,81	-0,53	3,09	0,41
RR	3,9	2,23	2,09	0,14	4,32	-0,42
GG	4,3	2,32	2,52	-0,2	4,84	-0,54
PA	4,43	2,32	2,49	-0,17	4,81	-0,38

PUA –average unit power for jumping on both legs , PUD – average unit power for the left leg,
PUS –average unit power for the left leg

Following the calculations regarding the energetic parameters we obtained the experimental results as below:

- the difference between the unit power for the left leg and for the right leg
PUD-PUS: has a minimal value of -0,53 and a maximal value of 0,29.

- the difference between the unit power for both legs and the sum of unit power for left and right leg (PUA)- (PUD + PUS) has for the majority of subjects positive values or values in the interval (-1; 0,41).

The results presented in the tables 2, 3 and 4 regarding the control parameters (the coefficient of energetic variability – CVE and the coefficient of structural variability – CVS) show the following results:

Table nr.6 – Control parameters following the three tests of the M. Georgescu – modified method at free fighting athletes

CVS	Less than 3	3 – 3,5	More than 3,5
Frequency	0	1	9

CVE	Great value	Low value
Frequency	10	0

Discussion

The evaluation of the energetic parameters

PuA -(PuD+PuS) – the value of the difference of average unit power appears because we do not deal with perfect systems, but there is the speed which interferes and gives us the difference.

The athletes with values around -1 are normal from the point of view of their training. In our research 1 result is positive and 8 are in the interval (-1; 0). An interpretation given by the Hillerin J. Pierre in 1997 shows that the positive results together with the results situated in the interval (-1; 0) indicates an imbalance in the training of free fighting athletes for the experimental group, in the sense of lack of force training. We obtained 1 result in the interval (-2; -1) which indicate an excess of force training. (<http://www.donnamaria.ro/suport/Aplic/MGM>)

The evaluation of the control parameters

The coefficient of energetic variability (CVE) refers to the capacity of control over the energetic resources in nonspecific movements and brings data regarding the quality of the jump detachment; this coefficient should not be maximal, but optimum in sport with a partner. [Hillerin, J. P., Enescu, M., p.104] Table nr. 1 shows that all 10 free fighting athletes from the experimental group have great values of the coefficient of the energetic variability, which means that this athletes do not have a good control in finalizing the movements at high speed (for the jumps on two feet). None of the athletes has a small value of this coefficient.

The coefficient of structural variability (CVS) – refers to the capacity to control the preparation of the contact with the ground. From the centralizing table we notice that 9 athletes have values outside the interval (3; 3,5). Only 1 athlete has a result in the interval (3; 3,5) which is considered the normal interval of values. The data obtained in our experiment are greater than 3,5. These results show some aspects such as a not very good preparation of the athletes, rigidity, harshness in their actions. None of the values are situated below the value of 3.

Conclusions

From the data analysis we can present the following conclusions:

The hypothesis that based on a good knowledge of the energetical and control parameters there is a possibility to improve the explosive force was confirmed.

The development of the explosive force is very important for the process of training of the athletes practicing free fighting, and there is a necessity of good planning and individualization of the process of training, using general and specific exercises characterized by intensity, repetitivity and consistent. The experimental data together with their evaluation have a great importance for the instructive-educational process, the coach using them to plan and to individualize it.

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STUDY ON THE INFLUENCE THE PRE-COMPETITION ANXIETY HAS ON FAILURE OR SUCCESS

Silviu Şalgău¹

Keywords: anxiety, failure, success, pre-competition period

Abstract

Anxiety is the dynamic center of all neurosis and we will always have to deal with it. In this paper we aim to demonstrate that the pre-competition anxiety has an influence on athletic failure or success, if we do not use calming and self-calming methods for improving the performances. During this research I could extract several conclusions regarding anxiety and its therapy. In today's therapy, considering the relations that the therapeutic act creates, communication plays a significant role. The psychological training of the athletes during the pre-competition period has become a factor more and more important in the structure and strategy of general training, considering the effective conducts in the competition, conditioned by the system of the pre-competition attitudinal states, and by the athlete's ability to regulate his own behavior.

Introduction

Anxiety is the dynamic center of all neurosis and we will always have to deal with it.

If someone is afraid every time he/she stands in a high place, or when he/she has to talk about something he or she is not comfortable with, we call this anxiety; if someone is afraid when he or she is lost in the mountains, during a thunderstorm, we will call this fear. We have, so far, a simple and clear distinction; fear is the reaction that is proportionate with the danger someone has to face, while anxiety is a disproportionate reaction to the danger, even a reaction to an imaginary danger.

This distinction has, however, a weak spot, which is that the decision whether the reaction is proportionate or not, depends on the average level of knowledge in the given society, but if that level of knowledge proclaims a certain attitude as being ungrounded, a neurotic person will not meet any difficulty in giving his/her action a rational basis. In real life, we might totally fail in an argument if we say to a patient that his/her horror to be attacked by a crazy lunatic is a neurotic anxiety. He or she would show us that his/her fear is real and he/she would refer to the circumstances that feed it. A primitive man would prove himself to be just as stubborn if someone would consider his reactions as being disproportionate with the real danger. A man from a tribe with taboos regarding eating certain animals, for example, is scared to death if he accidentally has ingested flesh from that taboo animal. As an outside observer, you could call that a

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disproportionate reaction, or even totally unjustified. But when you get to know the beliefs of the tribe regarding the forbidden meat, you will understand that the situation represents a real danger for that primitive man, a danger to get a disease.

By showing what we understand by anxiety, I also tried to give an idea of the role it plays. The common man in our society is less conscious of the importance the anxiety has in his life. Usually, he remembers some childhood anxious states, one or more, and that he was excessively scared during situations that were outside the daily routine, such as before an important conversation with an influential person, or before exams.

Material and method:

Hypothesis

As we know, the hypothesis is not a form of knowledge, but a moment of it. In this paper we aim to demonstrate that the pre-competition anxiety has an influence on athletic failure or success, if we do not use calming and self-calming methods for improving the performances.

Subjects, stages, and conditions of the research

In order to prove my hypothesis, I walked through several stages: collecting information regarding shyness, anxiety, psychological stress, methods of treating these states and attitudes, establishing certain research objectives, choosing the experimental group, the diagnosis and research methodology, establishing the independent and dependent variables.

Thus, I chose randomly a group of 30 subjects, students in different sections at the University of Bacau, aged 19-28, from which, after a preliminary phase, following an interview and a first evaluation, I selected 15 students with approximately the same manifestations who accepted the psycho-therapeutic intervention, monitoring 5 of them.

The research was conducted during July 2009 - April 2010, being divided into the following stages:

First Stage: three months (July - October), during which I made a specific theoretical documentation, I studied the bibliographical material, I have synthesized all the notes referring to anxiety, stress, shyness, personality, communication etc. that I gathered during the three years of interest in the field of psycho-therapy. Near the end of this stage I prepared the assessment tests, the general structure of the research plan, a part of the objectives and therapeutic methods.

Second Stage:

- ✓ I conducted individual interviews and testings for assessing the anxiety as an attitude, the social individual behavior, the personality. At the end of this stage, during a common meeting, I selected 15 subjects who accepted the psycho-therapeutic intervention.

Third Stage

- ✓ to the formed group I explained the aim, objectives and duration of the therapeutic intervention, what is a therapy group, what is interpersonal communication, how to keep a personal diary, the obligatory character of the indications that I gave them, feed-back, and especially the importance that they are conscious of the exercises.

Fourth Stage

- ✓ the one in which I analyzed the recorded data. At the end of this stage I started to write this paper, based on all the gathered materials (bibliographical carts, protocols, tests results etc.)

The research was conducted in the psychology office of the SC. DENTA. SRL, where I used three rooms:

- a receiving room; here took place "the first meeting", individual interviews and confidential discussions with every subject regarding the group of therapy about to be formed. Thus, I had at my disposal all the comfort of an office (dimensions: 6m/4m), with modern desk, video and audio recording devices, and different materials for ensuring a relaxed ambiance.
- a testing room with tables (8, disposed in a semicircle), chairs, pencils, questionnaires, armchairs, a room that was used also for filming and for some of the therapy sessions.
- a room for the therapy sessions (dimensions: 8m/4m), spacious, full of light, with mattresses, pillows, video and audio recording devices, writing instruments, paper, balls of different sizes, etc.

The therapy sessions had an interval of 2 weeks between them, and the sessions from the preparing phase were individual and they were conducted daily. On average, a session was approximately 2¹/₂h-3h long, comprising: the feed-back on the previous session, presenting the protocol for the present session, presenting the exercises and their performance, feed-back after the performance, establishing objectives for the next meeting and tasks for the period between sessions (homework).

Methods of research: theoretical documentation, conversation, observation, the case study method, psycho-metric methods.

Results analysis:

During this research I could extract several conclusions regarding anxiety and its therapy. In today's therapy, considering the relations that the therapeutic act creates, communication plays a significant role.

Anxiety therapy, due to its particularities, presupposes an analytical approach of the Ego.

The intervention on the **physical Ego** comprised: physical-hygienic training, dressing (through advice), suggestions, physical exercises. The daily hygiene, the changing of the way they dress, their hairstyle, all lead to the formation of a new self-image. The formal aspects of the behavior were improved by interventions on the speech pattern (more clear, more powerful, modulated through diction and reading exercises), on walking (straight, agile, elegant, through walking exercises), chair posture (in its center, not on the margin, in the center of a room, not in its corners); themes of conversation were given (2-20 minutes), first on groups of 2 subjects, then 2-3-5 persons. I assessed the continuity of the conversation, its logic, the subject's relaxation, I tried to educate him to look the conversation partner in the eye, to avoid fixed gestures, also an excess of gestures, theatricality, we practiced also the polite salute and the handshake. The content aspect comprised: order, discipline, consistency, punctuality, by creating a daily schedule that the subjects had to respect.

The influence on the behavioral **Ego** was done at the level of situations and intimidating persons. The gradual desensitizing towards intimidating persons was done by a re-enacting of different situations, role-play, practicing relaxation exercises, stimulating self-confidence.

For the intervention regarding the **psychic Ego and the self-consciousness**, I did a detailed analysis of the subjects' feelings and thoughts during an action and outside of it. They were made conscious of the negative consequences determined by these feelings and thoughts and we modified their personal attitude towards action, what they each bring for influencing the place each occupies during the action.

The social Ego was influenced by training them to be assertive, through the method of group working meetings, where we stimulated the expression of thoughts, feelings, contradictory discussions that lead to the externalization of the subjects. Knowing some of the situations and some of the intimidating persons, we elaborated together a series of possible answers and decisions. We also used:

- ✓ the negation method: to learn to refuse what you don't feel comfortable with, and to express this in a clear, but not aggressive manner;
- ✓ the initiative method: the initial training inside the therapy group, between friends, at work, and transferring it among strangers, in emotional situations, during exams;
- ✓ the model method: the subject chooses with the therapist a personality model that he/she would like to identify with. Educating their own style through a re-living, an imagined character, and through re-decision, changing a life history;
- ✓ the professional status method: the professional accomplishment can constitute a basis for a social accomplishment, through transfer, but also a type of self-defense, and self-satisfaction.

Conclusions

After conducting this research, we can draw the following conclusions:

The improvement of the management of pre-competition anxiety, and stress caused by new situations, or relational situations, leads to:

1. a better management of fatigue during pre-competition periods
2. an improvement in memorizing verbal messages
3. a development of attention and concentration abilities
4. an improvement in self-confidence and personal assertion
5. a limitation of the influence of negative thoughts on failure or success
6. a clarification of the vision regarding personal objectives
7. an improvement in programming personal objectives on short-term and accelerating the passing to action, in failure or success
8. an implantation, modification, and improvement in the behavior related to the state of failure or success
9. a balancing of the energy inside and reflecting it outside
10. a sharpening of the positive kinesthetic perceptions and an improvement in communication during the pre-competition period

In any interaction the athlete has during the pre-competition period, he will behave and react the way he thinks he is and wants to appear as.

Regarding high performance, motivation has different intensities, with different effects on the behavior and on the effective action, due to the fact that there is an actual relation between the intensity of the motivation and the effectiveness of the action, as the failure or success in athletic performance are concerned.

The psychological training of the athletes during the pre-competition period has become a factor more and more important in the structure and strategy of general training, considering the effective conducts in the competition, conditioned by the system of the pre-competition attitudinal states, and by the athlete's ability to regulate his own behavior.

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TECHNICAL AND TACTICAL EVOLUTION OF EVIDENCE RESULTS IN THE JUNIOR II TRAINING IN APPLICATION PROGRAMMING BASED OPERATIONAL OBJECTIVES OF THE SCHOOL SPORTS CLUB BACAU

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Keywords: programming, technical and tactical training, juniors II, sports training, development.

Abstract

Since the tactical and technical training to junior level II, is strictly a topical issue in the application programming sports training based on operational objectives, to verify quality of sports training programming that was for testing samples recommended by the Romanian Federation of Handball.

Thus, four samples were selected which was suggestive of progress and quality of programming training. After each test were made that led analysis program for the next steps. Chain of operational objectives designed specifically for technical and tactical training and testing after interim analysis resulted in an increase of 3 individualized training on post (Acsinte A., Alexandru E. 2000, Budevici A, Șufaru C. 2004, 2005).

Subjects results from Bacău Sport School team (experimental subjects) were very good, they conquered the title of national champion, resulting in the timing of operational objectives and means of action, led to a good to very good progress in all factors of training Sports.

The contemporary significance of this theme:

Given that technical and tactical training at the junior level II is strictly a topical issue in the application programming sports training based on operational objectives, to verify quality of sports training programming, testing was moved to recommended evidence Romanian Handball Federation (C. Șufaru, 2004, 2006, 2009). Thus, four samples were selected that are suggestive to find quality programming and training progress.

Research hypothesis

We presumed that the testing of the technical-tactical training during the sportive training program for the juniors II could lead to a correct programming of the sportive training and to knowledge of the details concerning their instruction.

The research subjects were members of the junior II group from the Bacău School Sportive Club.

The research methods used in this paper were: the bibliographic documentation method, the experimental method, the statistical method and the

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graphical method.

Research development

Data on tactical and technical training are included in graphs 1 to 4 players and reflects the evolution of competitive over the three tests and assessment of behavior during the game in terms of technical and tactical. For a correct interpretation of the evolution of technical and tactical training was conducted initial testing and final testing and three intermediate. After each test were made appointments for tests that determined the next steps. Greater attention has been given interim period after testing 3 when there was a stagnation in development, primarily in natural samples and showed some backsliding.

Prioritize its operational objectives designed specifically for technical and tactical training and testing after interim analysis resulted in an increase of 3 individualized training on the job.

Triangle movement drill

The performance of 17.35 was obtained in initial testing to get the average performance of 17.11 obtained in final testing with a mean improvement of 0.24 s. Intermediate testing: 17.31 s 17.24 s 17.23 s;

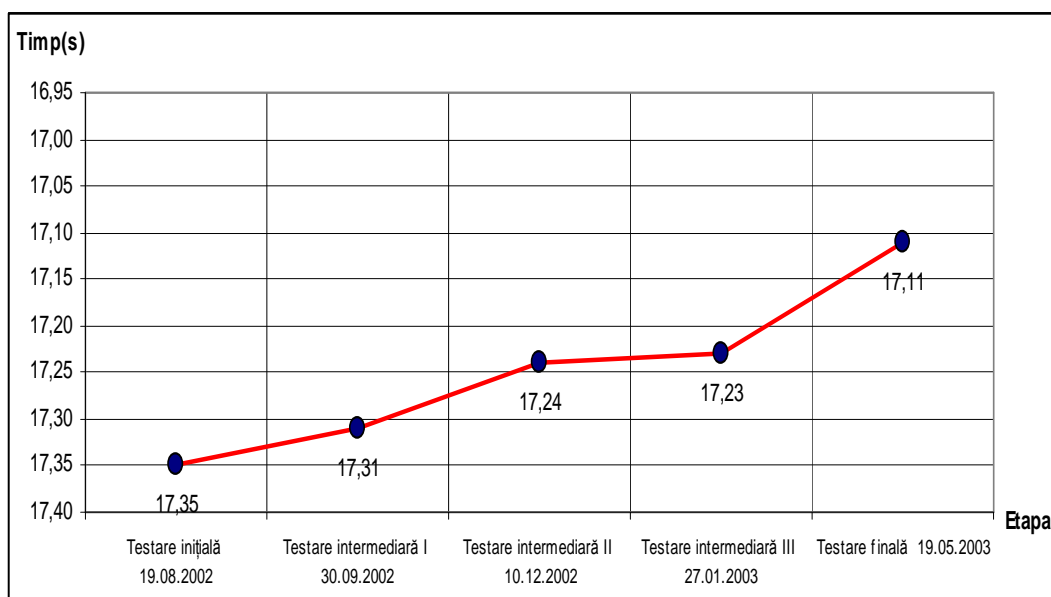


Chart 1 Results dynamics – triangle movement

From Chart 1 result always upward trend, but uneven between intermediate tests 2 and 3 the trend is very slow, more can be done in a continuing performance. Faster evolution in the first and last part of the competitive highlights the increased attention to technical training in defense tactics.

Pole dribbling drill

The average results in initial testing is of 6 "38, to reach the average performance of 6" 16 in the final testing with a step of 0.22. Intermediate testing: 6 "32 6" 27 6 '26.

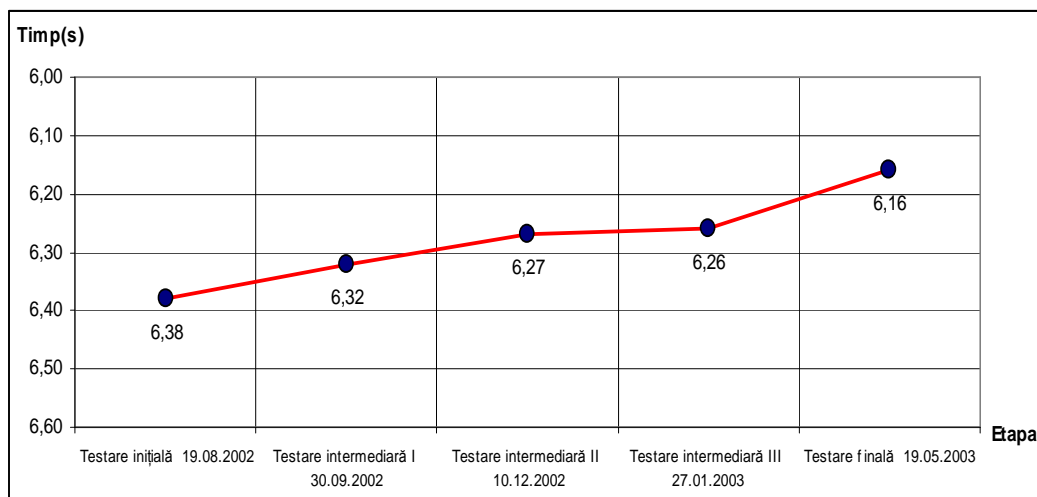


Chart 2 Evolution dynamics – pole dribbling

Developments resulting from Chart 2 very good first and last period of competitive and maintain performance between tests 2 and 3 (present transitional period), emphasizing the fact continuing progress.

Throwing the handball at a distance drill

The performance of 34.58 m at initial testing to final testing to obtain an average performance of 38.15 m with a step of 3.57 m, estimated to be good overall performance on the team.

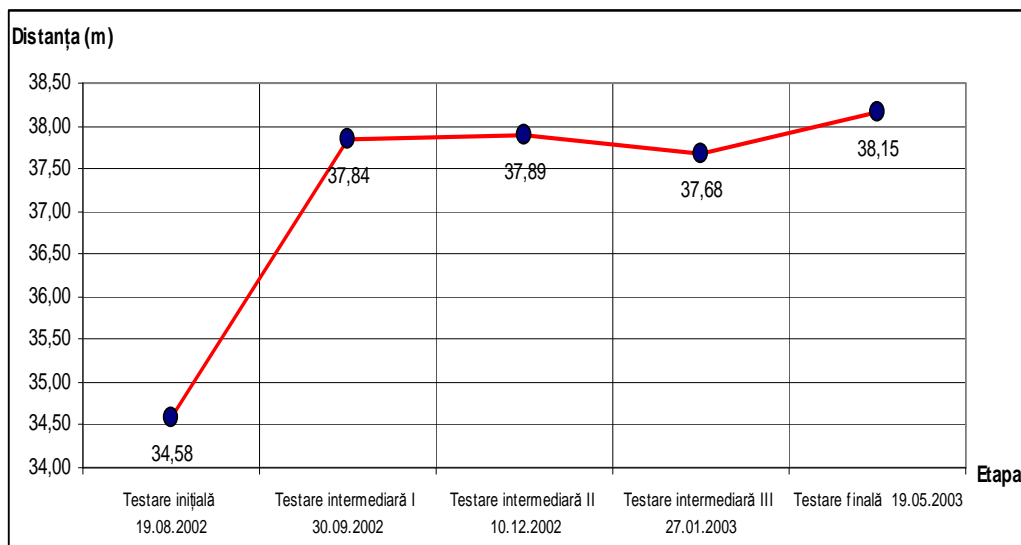


Chart 3 Evolution dynamics – throwing the handball

Chart 3 follows a trend of inconsistent and even an involution between tests 2 and 3. Early Competition is due to faster progress and commitment to develop arm strength and general physical training. Lack of maintenance training in this regard between intermediate tests 2 and 3, but not so sensitive, due to specific phase in during the winter holidays, when this process was not influenced in any way.

Assessing the behavior during the game

Attack - the data show a great progress in note 5.88 to the initial testing, footnote 8 to final testing. Progress of 2.13 points shows that the players had a competitive year, a development that ultimately led to them occupying the 1st position in the Junior II National Championship. A more significant development, with a step of 2.13 points was in attack where they actually left a little note (5.88).

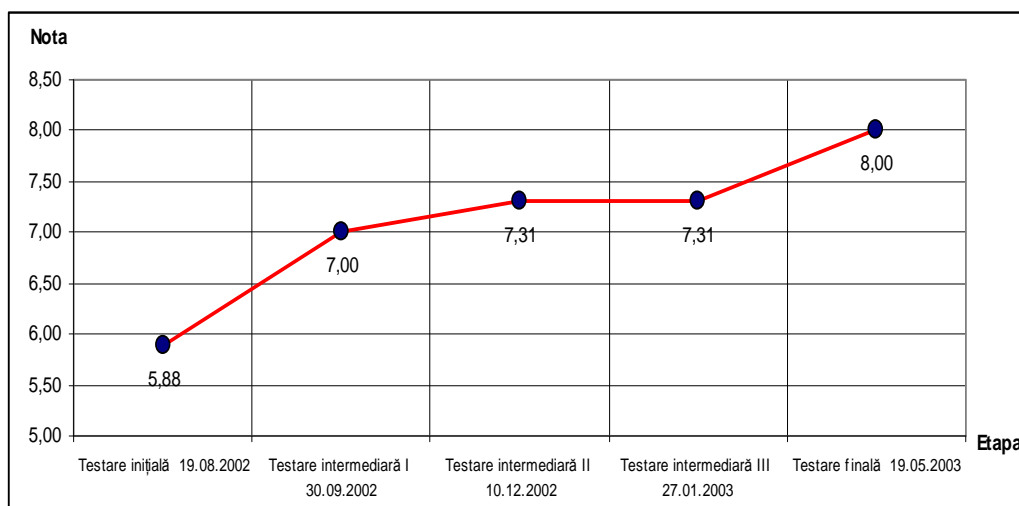


Chart 4 Evolution dynamics – attack

Defense - the defense progress was 1.63 points starting from a higher note (6.44). It shows a greater appreciation for defense finally (note 8.06) to attack (note 8.00) which shows that success is determined in official competitions in heavily defensive game (the team became national champion).

From Chart 4 shows an evolution of the technical and tactical training continued but uneven. Evolution higher in the first half is attributed to the competitive level of technical training and development emphasized enough in the last part of it is attributed to the competitive level of tactical training, which results in the programming of operational objectives - while those for technical are more numerous in the first part, and the preparation tactics are more numerous in the second half of the year competition.

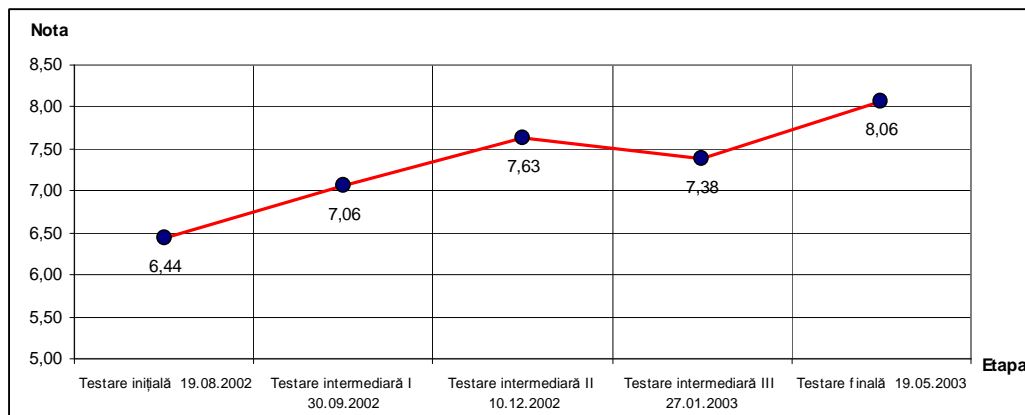


Chart 5. Results dynamics - defense

Conclusions

In conclusion it shows that between technical and tactical training developments, highlighted by data from graphs 1 to 4, there is a good correlation at all stages of preparation.

Discontinuity between stages 3 and 4 respectively of the intermediate tests 2 to 3 above was motivated and it cannot be regarded as a failure of the objectives of the training program, but only as a transitional period when the special problems of students related to family concerns, the winter season and not allow too many independent actions related to the game of handball. Progress charts for dynamic technical and tactical training has a slower growth in the first 4 mesocycles and higher in the last 4 mesocycles.

Subjects results from Bacau School Sports Club team (experimental subjects) were very good, capturing the title of national champion them, resulting in programming that operational objectives and means of operation, led to a good to very good progress in all relevant training sports.

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MANAGEMENT OF ACTIVITIES OVER 24 HOURS BY OVERWEIGHT CHILDREN FROM PRIMARY SCHOOLS

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Keywords: child, obesity, physical activity, consumption, energy

Abstract

The paper addresses the problem of overweight and obesity in children. He said that obesity has taken the magnitude of global epidemics, this is a real problem for children. Its solution means solving an important health problem, health effects are numerous including the highest risk of long-term for obesity in childhood and adulthood is continuing to associated with many complications. Physical activity, sports are a primary means, and at the same time easy and attractive to treat and prevent overweight and obesity problems in children. Thus, for practical implementation of the concepts and results of the questionnaire made, has developed a marketing program that includes activities to develop appropriate strategies for prevention and treatment of overweight and obesity in children.

Introduction

Obesity among children is already a phenomenon which concerns an increasing number of states. According to the World Health Organization (WHO), one in two Romanians are obese and every second romanian has a weight problem. One of the most worrying aspects is, however, obesity in children, Romania is ranked third place in Europe in terms of the number of obese children..

“Obesity means an abnormal condition characterized by the fact that in the body is stored a larger amount of fat than is necessary for the smooth conduct of its functions. (to carry out its functions under optimal conditions). Obesity is a chronic disorder of nutrition with ample consequences to health, aesthetics and longevity. It translates into an increase in overweight and skin fold thickness - subcutaneous fatty tissue growth” (D. Lăcătuș, Ghe. Crețeanu, 1978, The Obesity, Junimea Publishing , Iași).

In terms of anthropometric data, obesity is characterized by a surplus greater than or equal to 20% of ideal body weight relative to height, age and sex of the individual. Usually, the state that precedes obesity is overweightness, which means an excess of 10-19% of normal body weight. These normal values have undergone several attempts at standardization. One of these is the body mass index method (BMI = Body Mass Index).

$BMI = G / l^2$, where G = current weight in kilograms and l = height in meters. Thus, overweight compared with obesity can be regarded as part of a whole.

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The environment and current lifestyle gradually lead to the reduction of natural and spontaneous movement, a child lives a good deal of time in small rooms, without adequate space for play and walk. To these problems pertaining to the lifestyle and material conditions, can be added a number of other factors which require especially energetic intervention for movement.

We know that sport can be a sanogenetic preventive or curative recovery factor, provided it is applied to certain limits and under certain conditions, even under expert medical supervision. In this context, we may consider this fact to support that physical activity, and especially sport are vital tools, and while easy and pleasant, attractive to treat and prevent overweight and obesity problems in children.

For these reasons, it is considered that physical activity is the pillar of support balance and harmony of body and even moreso is required even developing a concrete action program based on physical activity, sport and leisure.

Purpose and arguments work

The study will seek to highlight relevant elements for parents, who are involved and directly influence decision making. Also, will attempt to measure the "weight" of influence of each factor involved in the decision, to what extent they are combined, and which are most likely to tilt the balance in favor of certain physical activities or sports that the child can practice.

One of the key objectives of substance prevention and treatment of overweightness and obesity in children is the increase of energy consumption by encouraging physical activity. At the same time, encouraging energy expenditure has an educational value in the sense of establishing sound principles of life in childhood: changing behavior in general, combating inactivity.

To test the heat balance of the diet (between intake and energy consumption) as well as to modify behavior related to the effort, an assessment must be made of physical activity over 24 hours (during a typical day for the child's activity system).

Hypothesis

In preventing and combating childhood obesity, we may act on several fronts: nutrition, physical and sporting, social and family, mental, communicative and informational.

Through sport and physical activity, children with fattening tendencies develop a better physical appearance, educational level, motor skills, sports skills and they form a positive or negative direction for each of these dimensions, aimed at developing the capacity for relating to the physical and social environment and thus achieving an environment for prevention and treatment of childhood obesity.

Research methods

Studying the problem addressed was achieved by applying the following methods: study and analysis of specialized scientific literature (desk reviews), observations made in the social environment of children targeted for this research, the interview method applied to specialized persons (teachers of physical education and sport, physiokinetherapists, endocrinologist, nutritionist, pediatrician and psychologist). The group of subjects are urban boys and girls, students at a state school, which constitute a homogeneous group in terms of the program.

Poll – survey

Onset of research took place in April 2010, ending in June 2010.

Objectives of applied research are: evaluation of temporal structure of the program's daily subjects, achieving hierarchy of preferences towards physical activity and sports, assessment of social factors of influence on the subject's practice of sport, determination of body mass index of the sample, positive or negative influence of parents in child's awareness of physical activity.

Thus, a questionnaire format consisting of 18 questions, divided into three sections. The first set of questions refers to how the child's total time is allocated, consisting of six questions. The second set represents consumption and physical activity preferences, consisting of 7 questions, and the last set is the identification of subjects and determination of the Body Mass Index.

The questionnaire was sent to 75 parents with children aged between 6 and 12 years.

Data analysis and interpretation

Analyzing the survey data studied from "Physical activities practiced by the overweight child over 24 hours" attempted to clarify the attitude that society and parents (taking care of the overweight children at risk of obesity) have thus, finding what can be done for a better promotion of physical activity in order to prevent and treat childhood overweightness and obesity and establish a more healthy lifestyle.

Section I - Structure of the total time to the child

In question number 1, "Number of hours of sleep?", we have the following results: the number hours of the sleep per night, 24,2% of the subjects have a long sleep 8-9 hours and 22,1% of the subjects not sleep at all during the day.

In questions 2 and 3 regarding the number of hours spent doing homework in school and at home shows that 48% oh the subjects spend 4 hours doing homework at school and 30% of the respondents spend 1-2 hours at home.

When asked "How are they traveling from home to school?" 63% of subjects responded that they are walking to school.

Question No. 5 "The number of hours of physical education and sport at school (weekly), the results are represented in Figure No. 1 - Sports in school.

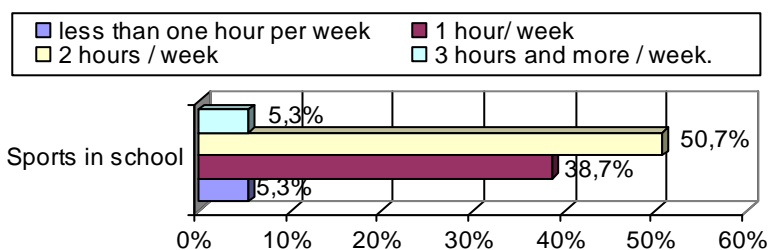


Figure No. 1

In terms of spending time on TV and computer, cross questions numbers 6 and 16, "TV and computer time X Sex, Figure No. 2 shows that most of the subjects spend 2 hours from which 51.6% are boys and 48.4% are girls.

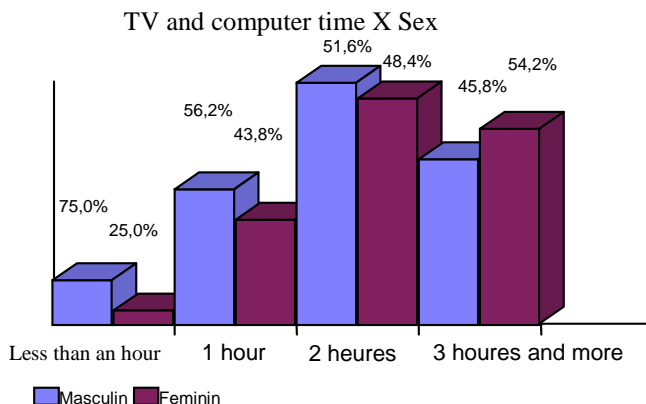


Figure no. 2

From the resulting data to question No.7, "How many times a day is your child eating ? " shows that 72% of subjects eat 3 meals a day and 24% eat 4 or more times a day.

Section II. - Questions on the consumption and physical activity preferences

Question no. 8 "Who can encourage, persuade and lead your child to practice physical activities ?" it appears that the family is the main factor in encouraging the practice of physical activity by the child at a rate of 41.7% and his environment (social environment) has an influence of 37.3% over the child's practice of sport.

On how to practice physical activities, Question 9 "How would you prefer your child to practice a sport or physical activity ?" 60% of parents interviewed preferred their children to practice in a group under specialty supervision and only 21.3% of them prefer individual specialist supervision.

Graphical representation made by crossing questions 10 and no. 13 between " favorite sport x-term " - Figure No. 3 shows time intervals regarding the practice of physical activity depending on the preferences. The subjects have ordered 5 replies activities listed in order of preference; thus, hiking and other activities, movement games, basketball, gymnastics and swimming have been the top choice and scheduling is predominantly 1-2 hours.

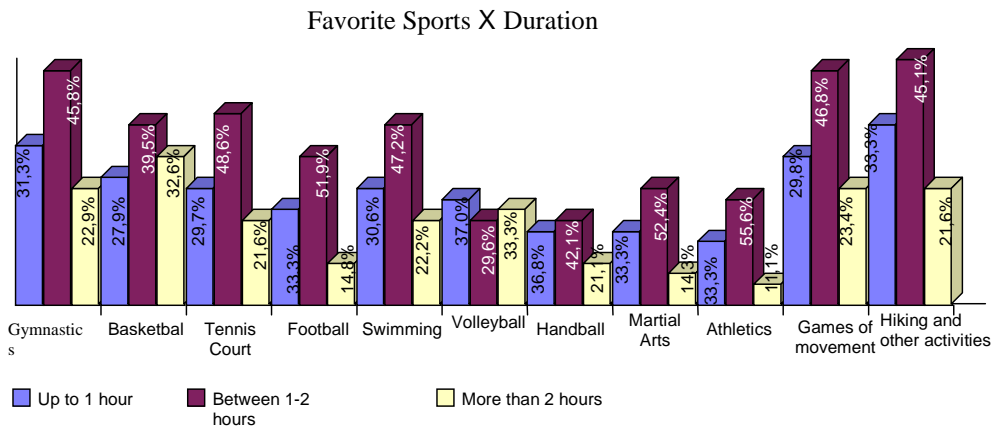


Figure no. 3

For question No. 11, "What steps would you take if you discover your child is overweight?" we have the results represented in Figure no. 4.

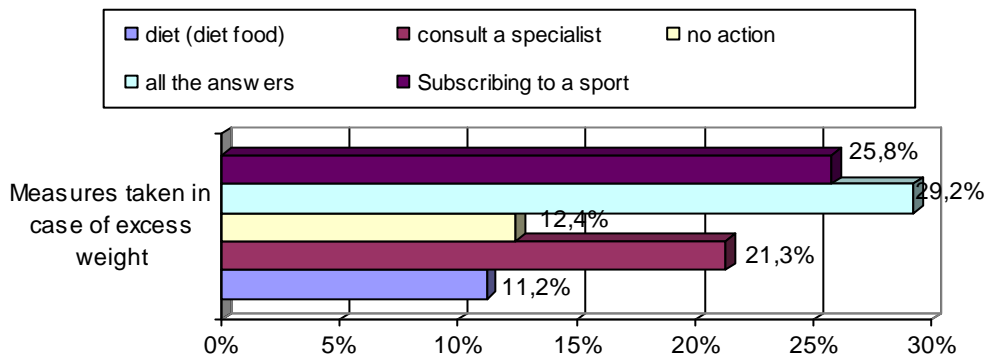


Figure no. 4

The question no.12, "Does your child's daily schedule allow time for sports and leisure activities ?" shows that 62.7% of parents of children allocated to sports and leisure activities in their daily schedule.

Reasons for not practicing physical activity, 37.3% are represented by the lack of time and 42.7% for other reasons as shown in the Figure No. 5 results of question No. 14, " If the child does not practice physical activity or leisure, why not?".

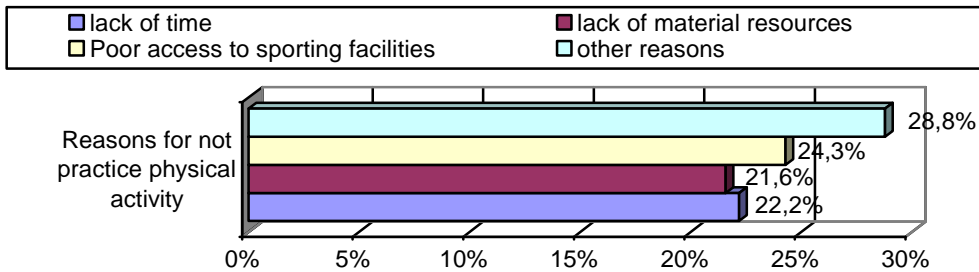


Figure no. 5

Section III - Identification data

Question no.15: The age of your child: 6 -7 years = 21.3%, 8-9 years = 72%, 10-12 years = 32%

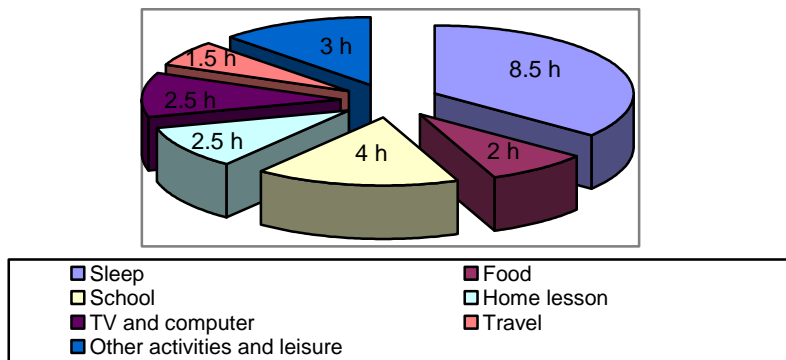
Question no.16: Child Sex: Male = 52%, Female = 48%

Question no.17: Weight and height (cm) of the child?: The mean weight = 47.8 kg, mean height of subjects = 138 cm.

Question no.18: Average Body Mass Index: 25.1, being overweight.

Conclusions

The findings emerged from the assessment of physical activity over 24 hours are used in drafting recommendations on program change in physical activity of overweight and obese children aged 6 to 12 years and engaging in additional physical activities to increase energy consumption.



Activities carried out within 24 hours

Figure no. 5

Through sports and physical activities, a child with fattening tendencies develops better physical appearance, educational level, motor skills, sports skills and is forming a positive or negative direction for each of these dimensions, aiming to develop the capacity to relate to physical and social environment and

thus achieve an environment conducive to prevention and treatment of childhood obesity.

Obesity is a public health challenge, unprecedented in Europe, a challenge which was not only underestimated but also incorrectly assessed, authorities did not fully recognize it as a strategic "problem" with economic implications.

Consequently, the combination of information strategies, social behavior, environmental and government policies can be effective when it comes to encouraging the practice of physical activities.

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MEANS FOR PHYSICAL THERAPY INTERVENTION USING ELEMENTS OF RECREATIONAL MATHEMATICS

Aurora Liliana Cojocaru¹

Keywords: physical therapy, recreational mathematics, kaleidocycle

Abstract

The kaleidocycle (the ring of tetrahedra) and the infinity strip (∞) are objects that have in their construction elements of recreational mathematics and which can be used in a physical therapy session, their handling being useful in therapeutic activity facilitation.

Introduction

The physical therapy treatment involves a very serious work, often for a longer period of time and therefore introducing, sometimes, of some elements with recreational character in the various exercises could make work more enjoyable, facilitating active participation of the subject, and therapeutic activity should become easier to accomplish, because, according to Doina Mârza, the recreational corporal activities have functions of entertainment, relaxation, recreation [Mârza, D., 2005, p.27 – 28].

Theoretical background

The kaleidocycle (the ring of tetrahedra) is one of the objects borrowed from recreational mathematics that could be used in physical therapy session. History of this object is in connection with artist Wallace Walker, which, as a student at Cranbrook Academy in 1960s, was asked to make a three-dimensional object out of a sheet of paper, only by folding and gluing it.

The result was a complex object in the shape of a ring, that could be folded through its center hole, taking a kaleidoscopic variety of shapes; this chain can be screwed and unscrewed endlessly and permanently changing the shape.

Walker's invention has attracted the attention of mathematician Doris Schattschneider, which has determined that this three-dimensional object from paper is the first of a novel class of geometric objects, called Kaleidocycles [Schattschneider & Walker, 1977 *apud* Root-Bernstein, R., 2003, p.274], etymologically, in Greek: *Kálos* (beautiful) + *eîdos* (form) + *kyklos* (ring) [www.kaleidocycles.de/links.shtml]; a such object having also the name – *the ring of tetrahedra*.

The Möbius strip (or the Möbius band) is the second element of recreational mathematics which inspired me to achieve an object that could be used in physical therapy sessions; I called this object the infinity strip (∞).

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Perspectives in the therapeutic field

Initially, I aimed to use these objects to achieve an important goal in physical therapy, namely education and re-education of coordination (oculo-manual coordination and bimanual coordination), but they can also be used for training the prehension grip and the fine motricity. Both objects, even if are rather specific means of occupational therapy (than of physical therapy), sometimes they can be used in physical therapy session, helping to achieve the objectives, through diversification of activity, making it more attractive and, apparently, easier to accomplish.

There are several types of kaleidocycles (rings of tetrahedra), the figure below (Fig. 1) illustrating the one consisting of 10 tetrahedra, which is easier to handle than other rings, but requires some effort for the execution of movements.



Fig. 1. Ring of 10 tetrahedra

The infinity strip (∞) (Fig. 2) is another object, with influences from recreational mathematics, which could be used in physical therapy sessions.

I made this strip based on “the Möbius strip” (Fig. 3), also called the tape with a single-sided [Câmpan, F., 1972, p.50-52], gluing its ends after making a 180° rotation of an end to the other.



Fig. 2. The infinity strip (∞)

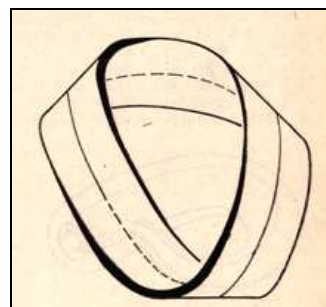


Fig. 3. The Möbius strip
(Câmpan, F., 1972, p.51)

The infinity strip (∞) was obtained through a 360° rotation of an end to the other. I have given this name because this strip resembles the mathematical symbol “ ∞ ”, and using them we can do “to infinity” crossing movements of a side

over/under of the other side, for example, the right side passes over the left side (or, in other words, the left side passes under the right side) (Fig. 4 a,b,c,d,e,f,g,h).

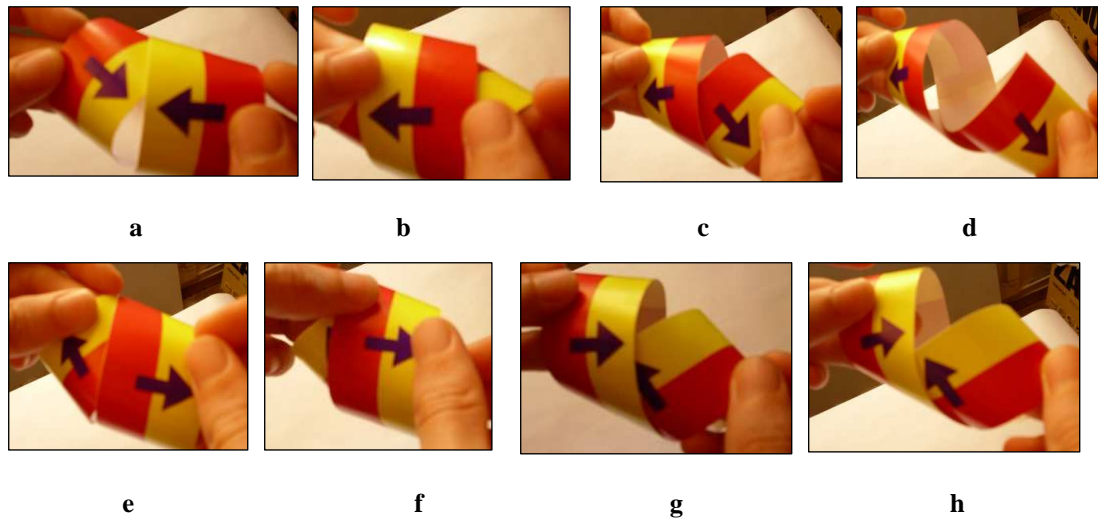


Fig. 4. Running movements using the infinity strip (∞) which the right side passes over the left side

These objects – the kaleidocycle (the ring of tetrahedra) and the infinity strip (∞) – can be used in programs designed, for example: for education and re-education of psychomotricity (in children); for recovery in neurological disorders of the central nervous system (such as Parkinson's disease to improve the coordination of hand movements); but they are especially useful for recovery in median nerve palsy (peripheral neuropathy).

Because in the case of median nerve palsy the motor deficit interested: abduction and opposability of the thumb, prehension grip, bidigital pinch formed by the index finger and the thumb, tridigital grip [Ochiană, G., 2006, p.80], among the muscles affected being: the flexors of the fingers, the lateral lumbricals (which produce flexion at the metacarpophalangeal joints), the long flexor muscle of thumb – *flexor pollicis longus* and the superficial head of the short flexor muscle of thumb – *flexor pollicis brevis* (which produce flexion at the metacarpophalangeal joint and interphalangeal joint of the thumb), the short thumb abductor – *abductor pollicis brevis*, opposing muscle of thumb – *opponens pollicis* [Sbenghe, T., 1987, p.597], the exercises with these objects aimed at functional restoration of the hand, especially at restoration of the prehension grip. But, because the hand, the most complicated limb segment of the organism, has functions related to prehension grip, discriminative sensibility, organ of the human personality, of expressiveness and professionalism [Raveica, G., 2006, p.139], for a better recovery of its functionality is required teamwork: patient – specialist (doctor, physical therapist, occupational therapist, psychologist), involving a permanent collaboration in this great team.

Conclusions

The theme of this paper is far from being exhausted, the physical therapist, with training, imagination and inventiveness that has, can find also other means to make therapeutic activity easier to accomplish and with the best results.

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STUDY ON THE PROFILE OF THE PHYSICAL ACTIVITY AND THE REQUIREMENTS EXPECTED OF THE STUDENTS OF THE UNIVERSITY OF BUCHAREST

Remus Dumitrescu¹

Keywords: business applications, exercise intensity, physical activity profile

Abstract:

The survey consisted of questions asked respondents and claimed their active cooperation for the success of the investigation. The aim was to systematically collect data about a social group as best defined, gathering information about individuals, roles, social networks, social groups, such as households or families, organizations and educational institutions, jobs or companies.

1. Reasoning and argumentation research

The development and dissemination activities are physical processes that include diverse business and why we need a specific model of psychomotor demands specialization.

If the group is, however, a decision that emerges from interdisciplinary information processing but different contents, but one way, namely: optimal development of body aesthetics and psychological processes involved and the positive results in physical education classes.

The purpose of the questionnaire (activitygram) is to determine the physical activity profile and the demands of female students from the University of Bucharest, specialized in everyday life.

2. Establishment of sociological research related disciplines identified proposed

The questionnaire was taken and adapted from "The Cooper Institute for Aerobics Research (1999)³ and applied to a number of 220 subjects.

3. Extracurricular activities related to the evaluation of physical education

The University of Bucharest includes physical education as a curricular discipline in I and II, with optional courses in most faculties. Base material available to the department of physical education and sports games includes three sports halls, two aerobics rooms, a bodybuilding, fitness room, a football pitch,

¹ *University of Bucharest*

³ Institutul Cooper, Dallas, TX (1999) „The Cooper Institute for Aerobics Research” FITNESSGRAM / ACTIVITYGRAM Ghid de referință Standardele de fitness - pagina 7-9

three tennis courts, a basketball court. Work is generally tailored to the needs of mixed groups and physical possibilities, without being able to cover all sports but required of students.

My study concerns only a sample of girls, from preliminary data, whose development helped to demonstrate the effectiveness and intensity of effort at certain times of day and the week and preferences for certain disciplines that help improve the aesthetics of the female body, increase driving ability, maintaining a high moral tone and physical and not least, skill training to make the move.

Following studies at the University of Bucharest (2008-2009 academic year), quantitative analysis, highlights the following:

- 52.5% of students considered to have problems with physical condition;
- 63% of the students are not happy with their physical condition.

Regarding the qualitative analysis we highlight the following:

- 97% of the respondents were aged between 18 and 20 years;
- 79% from urban areas;
- 21% of first year students did not participate in any physical education class in college admission in the previous year;
- 4% have purchased medical exemption.

Evaluation is the assembly of all operations to monitor the extent to which educational outcomes and standards consistent with the objectives initially set. This system involves establishing objectives, organization and reorganization, and self control and permanent monitoring will provide data on the proposed tasks, progress or any errors flagged unsatisfactory results.

4. Develop survey questions centered on the types of extracurricular activities and school subjects

The questionnaire consists of six main categories and six subcategories of physical activity each with 5 questions with respect to: daily schedule (time spent between 7.00 and 14.30), type of activity, rest, work intensity (low, medium , high).

Registration has included work week (Monday, Tuesday, Wednesday, Thursday and Friday).

Survey respondents consisted of questions and demanded their active cooperation for the success of the investigation. The aim was to systematically collect data about a social group as defined, can gather information about individuals, roles, social groups, organizations and educational institutions, jobs. The information is provided by the Dictionary of Sociology (1998)⁴.

ACTIVITYGRAM

Name _____ **Surname** _____ **Age** _____

Record types of work they are doing it within 30 minutes during the day using the list at the bottom of the page. Then select a level of intensity, you choose depending on how "feel" effort - easy (low intensity), not too tiring (moderate), very tiring (high intensity). Periods of rest will be recorded, stating the superficial level of intensity (low intensity), medium (moderate), deep (maximum intensity).

⁴ Zamfir, C., Vlăsceanu, L. (coord.) 1998 - *Dicționar de sociologie*, Ed. Babel, București

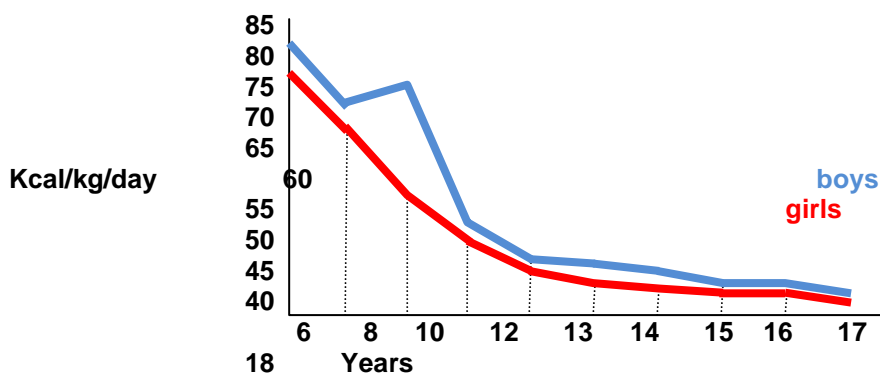
The categories of physical activity

Physical activity involved in daily life activities	Aerobic Activities	Sports	Muscle toning activities	Mobility Exercises	Leisure and sleep
Physical activity part of everyday life	<i>Activities practiced to improve physical fitness</i>	<i>Activities practiced as sports, competitive or recreational</i>	<i>Activities practiced for muscle toning</i>	<i>Activities practiced to improve mobility and quality of life</i>	<i>Non-physical activities</i>
1. Walking, biking or skateboarding	1.1. Fitness/gimnastică	2.1. Football	3.1. Working with weights	4.1. Martial Arts (Taichi)	5.1. Individual study ptr. school or read
2. Activities individuals in the home or garden	1.2. Aerobic Dance	2.2. Team games, basketball, volleyball, etc.	3.2. Athletics (jumping, throwing, etc..)	4.2. Stretching	5.2. Computer or TV games
3. Games active or dance	1.3. Aerobic activities: running, cycling and walking your walk with rollers, etc.	2.3. Racquet Sports (tennis, badminton, etc..)	3.3. Gymnastics, dance, lesson activities physical education and sports	4.3. Yoga	5.3. Dining or recreation
4. Service involving physical activity	1.4. Aerobic activities during the lesson ed.	2.4 Physical. Sports during physical education class	3.4. Judo and martial arts (karate, aikido)	4.4. Ballet, dance	5.4. Sleep
5. Other	1.5. Other	2.5. Other	3.5. Other	4.5. Other	5.5. Other

Day					Month					Year							
Time	Type of activity	Rest	Low intensity	Moderate	High intensity	Time	Type of activity	Rest	Low intensity	Moderate	High intensity	Time	Type of activity	Rest	Low intensity	Moderate	High intensity
7:00						7:00						7:00					
7:30						7:30						7:30					
8:00						8:00						8:00					
8:30						8:30						8:30					
9:00						9:00						9:00					
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13:00						13:00						13:00					
13:30						13:30						13:30					
14:00						14:00						14:00					
14:30						14:30						14:30					

Table no. 1 taken after "The Cooper Institute for Aerobics Research" (1999)

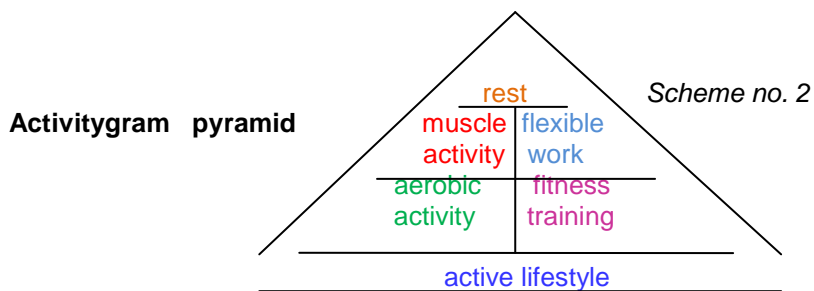
Trends in total energy consumption by age



Scheme no 1. After Rowland, T.W., *Developmental Exercise Physiology, Human Kinetics, 1996*

The guidelines specifically advise lame selection of activities from each of the different levels of physical activity with physical activity pyramid initiated by Corbin, CB & Lindsey, R. (2007).

Pyramid is used as a method to classify different types of physical activities and also to assess with ACTIVIGRAMEI (Cooper Institute, 2004) presenting the best concepts of physical activity and fitness for life Corbin, CB et al. (2007)⁵.



5. The questionnaires, compilation and analysis of views took place over a period of three months October, November, December, during the lifetime of physical and sports education courses both before and after the lesson. Following the centralization have produced the following data:

Table no. 2. Synoptic picture of the types of business results

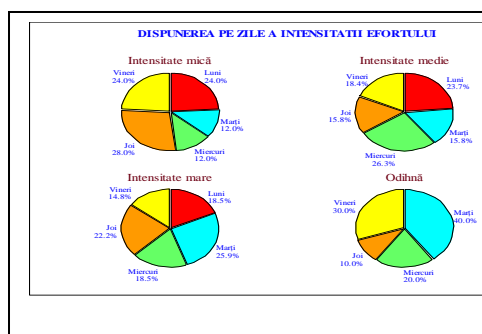
	Monday	Tuesday	Wednesday	Thursday	Friday
1.	7 (35%)	9 (45%)	10 (50%)	8 (40%)	10 (5%)
2.	13 (65%)	5 (25%)	8 (40%)	5 (25%)	7 (35%)

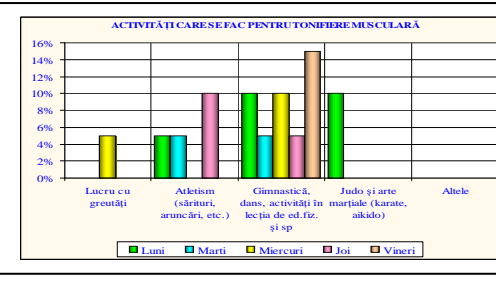
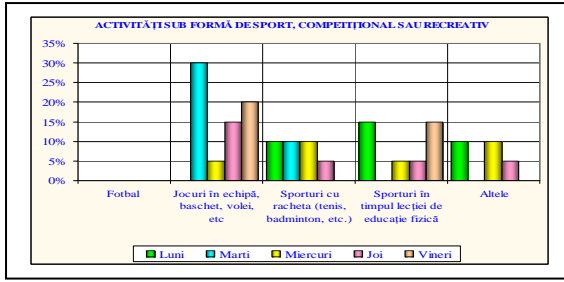
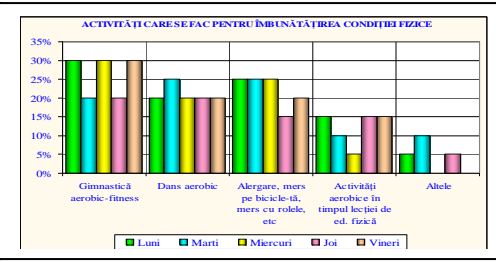
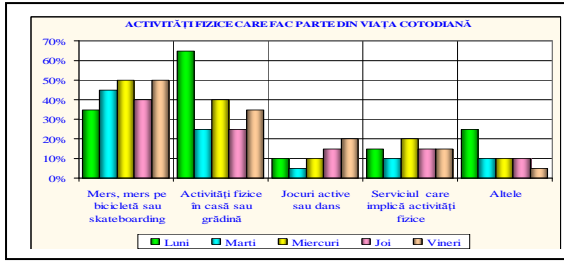
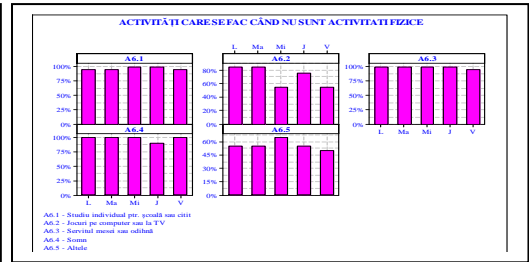
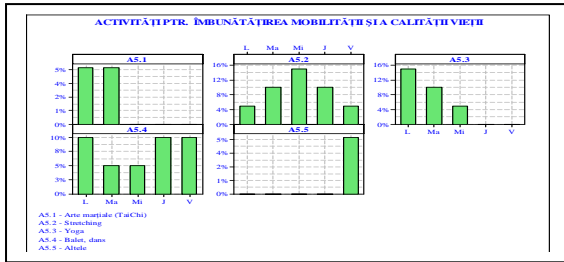
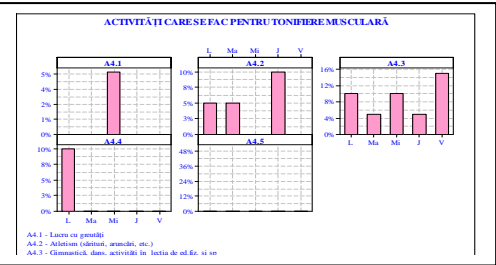
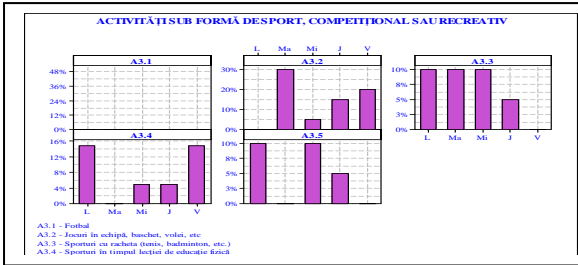
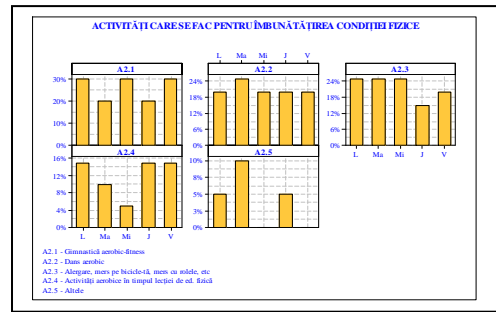
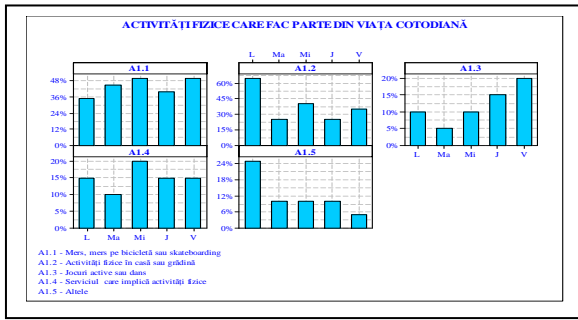
⁵ Corbin, C.B. & Lindsey, R. (2007) - *Fitness for Life-Updated 5th Edition-Cloth*

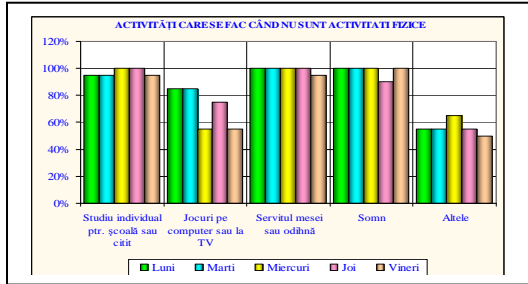
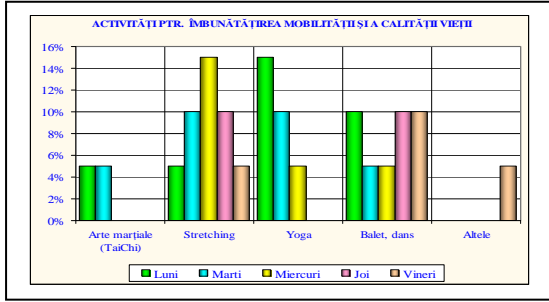
ITEM	3.	2 (10%)	3.	1 (5%)	3.	2 (10%)	3.	3 (15%)	3.	4 (20%)
	4.	3 (15%)	4.	2 (10%)	4.	4 (20%)	4.	3 (15%)	4.	3 (15%)
	5.	5 (25%)	5.	2 (10%)	5.	2 (10%)	5.	2 (10%)	5.	1 (5%)
	1.1.	6 (30%)	1.1.	4 (20%)	1.1.	6 (30%)	1.1.	4 (20%)	1.1.	6 (30%)
	1.2.	4 (20%)	1.2.	5 (25%)	1.2.	4 (20%)	1.2.	4 (20%)	1.2.	4 (20%)
	1.3.	5 (25%)	1.3.	5 (25%)	1.3.	5 (25%)	1.3.	3 (15%)	1.3.	4 (20%)
	1.4.	3 (15%)	1.4.	2 (10%)	1.4.	1 (5%)	1.4.	3 (15%)	1.4.	3 (15%)
	1.5.	1 (5%)	1.5.	2 (10%)	1.5.	0 (0%)	1.5.	1 (5%)	1.5.	0 (0%)
	2.1.	0 (0%)	2.1.	0 (0%)	2.1.	0 (0%)	2.1.	0 (0%)	2.1.	0 (0%)
	2.2.	0 (0%)	2.2.	6 (30%)	2.2.	1 (5%)	2.2.	3 (15%)	2.2.	4 (20%)
	2.3.	2 (10%)	2.3.	2 (10%)	2.3.	2 (10%)	2.3.	1 (5%)	2.3.	0 (0%)
	2.4.	3 (15%)	2.4.	0 (0%)	2.4.	1 (5%)	2.4.	1 (5%)	2.4.	3 (15%)
	2.5.	2 (10%)	2.5.	0 (0%)	2.5.	2 (10%)	2.5.	1 (5%)	2.5.	0 (0%)
	3.1.	0 (0%)	3.1.	0 (0%)	3.1.	1 (5%)	3.1.	0 (0%)	3.1.	0 (0%)
	3.2.	1 (5%)	3.2.	1 (5%)	3.2.	0 (0%)	3.2.	2 (10%)	3.2.	0 (0%)
	3.3.	2 (10%)	3.3.	1 (5%)	3.3.	2 (10%)	3.3.	1 (5%)	3.3.	3 (15%)
	3.4.	2 (10%)	3.4.	0 (0%)	3.4.	0 (0%)	3.4.	0 (0%)	3.4.	0 (0%)
	3.5.	0 (0%)	3.5.	0 (0%)	3.5.	0 (0%)	3.5.	0 (0%)	3.5.	0 (0%)
	4.1.	1 (5%)	4.1.	1 (5%)	4.1.	0 (0%)	4.1.	0 (0%)	4.1.	0 (0%)
	4.2.	1 (5%)	4.2.	2 (10%)	4.2.	3 (15%)	4.2.	2 (10%)	4.2.	1 (5%)
	4.3.	3 (15%)	4.3.	2 (10%)	4.3.	1 (5%)	4.3.	0 (0%)	4.3.	0 (0%)
	4.4.	2 (10%)	4.4.	1 (5%)	4.4.	1 (5%)	4.4.	2 (10%)	4.4.	2 (10%)
	4.5.	0 (0%)	4.5.	0 (0%)	4.5.	0 (0%)	4.5.	0 (0%)	4.5.	1 (5%)
	5.1.	19 (95%)	5.1.	19 (95%)	5.1.	20 (100%)	5.1.	20 (100%)	5.1.	19 (95%)
	5.2.	17 (85%)	5.2.	17 (85%)	5.2.	11 (55%)	5.2.	15 (75%)	5.2.	11 (55%)
	5.3.	20 (100%)	5.3.	20 (100%)	5.3.	20 (100%)	5.3.	20 (100%)	5.3.	19 (95%)
	5.4.	20 (100%)	5.4.	20 (100%)	5.4.	20 (100%)	5.4.	18 (90%)	5.4.	20 (100%)
	5.5.	11 (35%)	5.5.	11 (55%)	5.5.	13 (65%)	5.5.	11 (55%)	5.5.	10 (50%)

Table no. 3 Synoptic picture of the type of business results

zile	Intensitatea efortului			
	Odihnă	Intensitate mică	Intensitate medie	Intensitate mare
Luni	0%	30%	45%	25%
Martți	20%	15%	30%	35%
Miercuri	10%	15%	50%	25%
Joi	5%	35%	30%	30%
Vineri	15%	30%	35%	20%

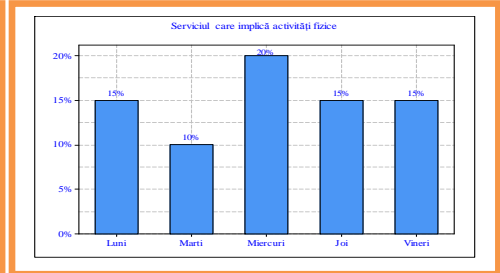
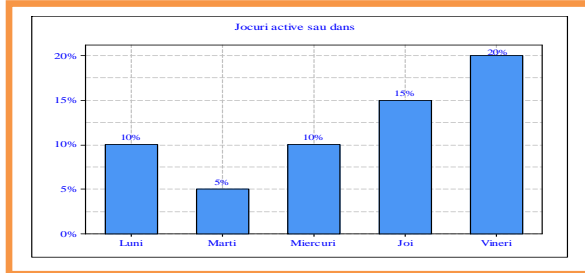
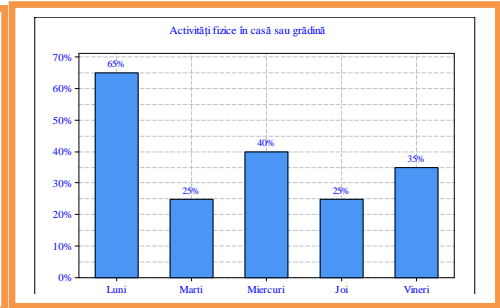
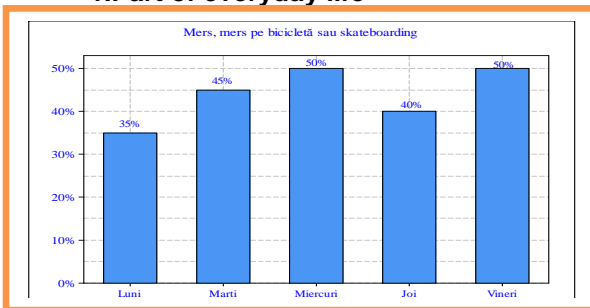




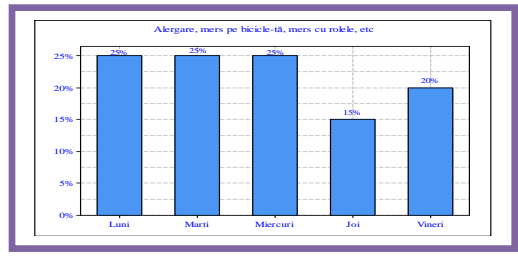
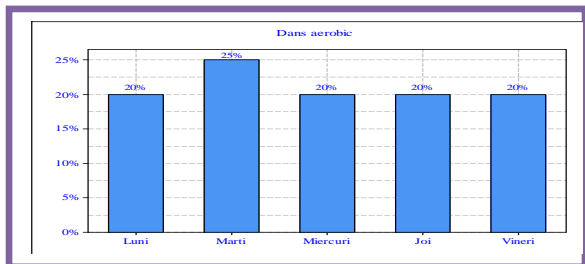
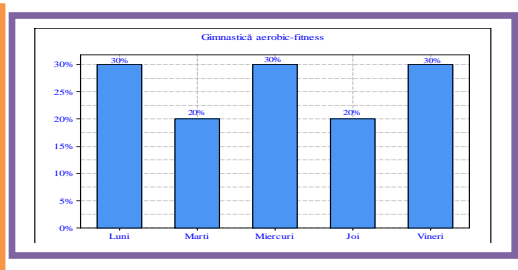
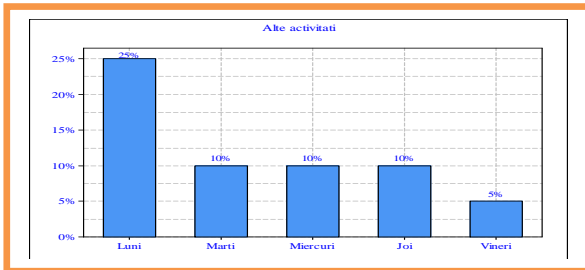


1. Activities tha

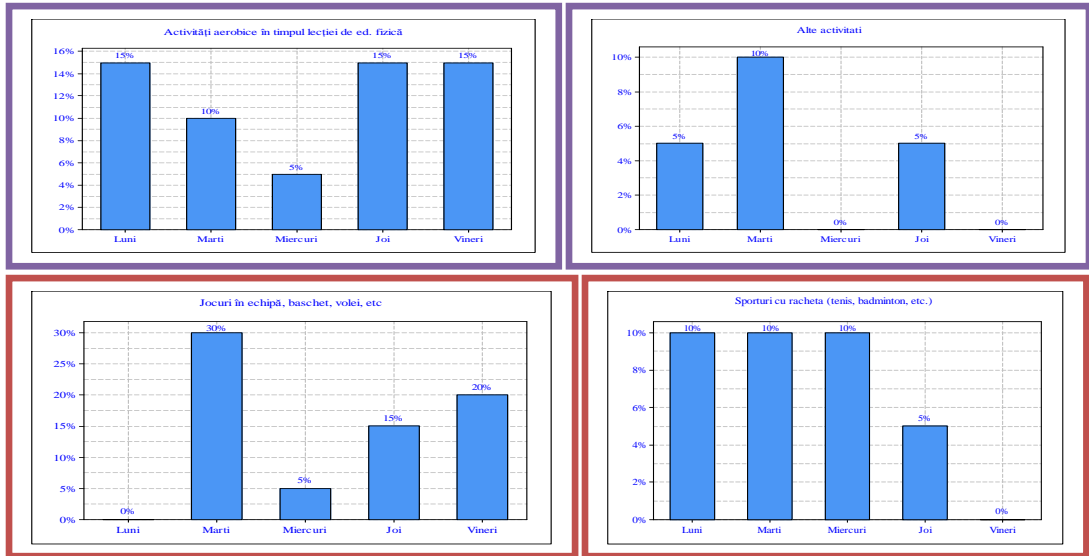
1.Part of everyday life



2. Activities practiced to improve physical fitness



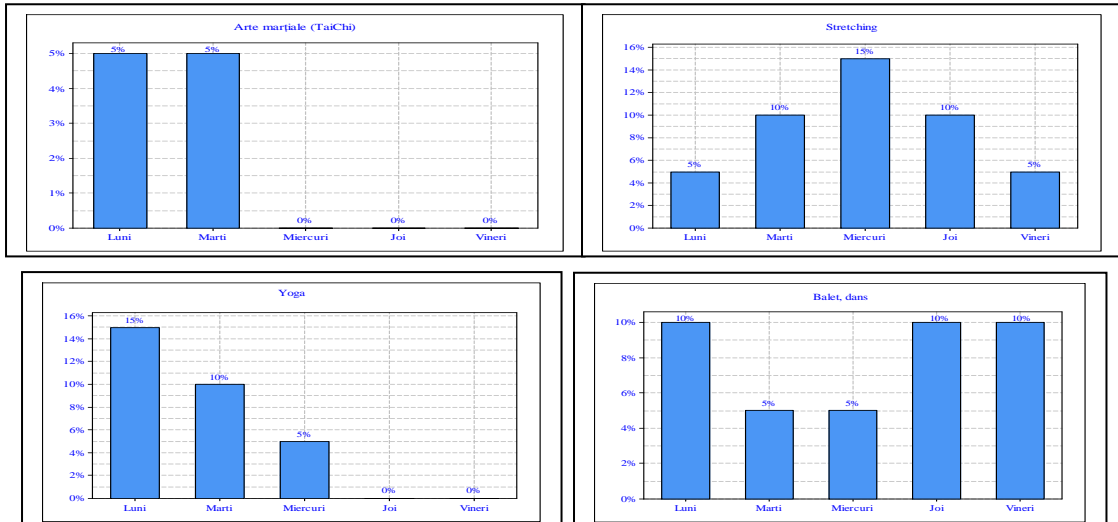
3. Activities practiced as sports, competitive or recreational



5. Activities practiced for muscle toning



5. Activities practiced to improve mobility and quality of life



6. Non-physical activities practiced



Conclusions

Following the responses of subjects Activitygram applied research and discussions, we could observe the following:

- For the physical activity that is part of everyday life, most respondents opted for items 1 and 2, predominantly on Mondays and Fridays;
- For the activities that are practiced to improve physical condition, most respondents opted for items 1.1. and 1.2., predominantly on Mondays, Wednesdays and Fridays;
- For the sport that is practiced as a competitive or recreational sport, most respondents opted for the item 2.2., predominantly on Tuesdays and Fridays;
- For the activities that are practiced for muscle toning, most respondents opted for the item 3.3., Predominantly on Mondays and vinery;
- For participation in activities to improve mobility and quality of life, most respondents opted for items 4.2. and 4.4., predominantly on Tuesdays and Thursdays;
- For the activities practiced when physical activities aren't, most respondents opted for items 5.1. and 5.4., predominantly on Tuesdays and Wednesdays.

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RESEARCH ON IMPROVING THE HUMAN PERSONALITY THROUGH SPORTS-RECREATIONAL ACTIVITIES AT THE LEVEL OF TOURISM IN ARGES COUNTY

Julien Leonard Fleancu¹, Traian Ionut Mercea

Keywords : personality, tourism, education, training

Abstract

The main motivation of the approach lies in the intensity of hobby for the mountain activities, argued through the above mentioned personal experience.

However, the fact that Argeş County includes an extensive and attractive mountainous area such as the Fagaras Mountains, National Park, Leaota and lezer- Papusa , led me to develop this paper which includes the SWOT Analysis, identification of educational formative character of the mountain on the behaviour of different categories of citizens who practice mountain tourism, identification and classification of all the mountain routes in the area of the county after the degree of accessibility, practical advice on the logistics organization of mountain tourism which can provide the full success of all those who practice mountain activities.

The purpose of the paper

Performing an experiment on some categories of citizens who practice mountain tourism and identification of the motivation as well as of the behaviour manifested in different occasions and forms of mountaineering.

The premises of the research

Tourism contributes to the complex development of motor skills and physical qualities. Within the tourist actions the motor skills with applicative character: walking, running, climbing, crossing barriers, loads carrying, balance, biking, rowing etc. Tourism is a means of physical education accessible to all ages as it requires to the participants a minimum of physical training. Being developed in the nature, the tourism helps to know about country beauties, the historical places and the achievements, helps to the formation of groups, develops the personal initiative, the moral and will traits , enriches the participants' knowledge with new concepts and practical procedures for field orientation, for reading maps, develops a collective leadership capacity. The implications of the tourism in the lives of the people manifested and tend to grow on several fronts - political, economic, social, etc.. - being outlined as a side of life quality. If economically, the tourism was, in most of the countries a distinct branch of the national economies, socially it has contributed and still contributes to attracting the broadest categories of the population towards outdoor activities, contributing to the personality forming of the person.

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The research hypothesis

We believe that if we use and we will make better use of Arges County mountain heritage tourism, we will achieve the goals on education, culture and fun on the levels of various social categories to be involved in this activity.

Location, subjects, investigations carried out in the experiment

The experiment was conducted in the area of Arges County on two mountain tourist routes which we believe that are the most representative mountain tourism routes and contain a series of cultural, educational, sports personality able to positively influence the subjects participating in the experiment.

To study human behaviour research was done on a sample of 50 people aged between 25 and 45 years on the two proposed mountain tourist trails of different difficulty levels depending on the individual features (age, sex, physical training, previous mountain experience , technical training).

For a good development of the experiment we worked with the Arges Public Service and Rescue and especially with Pitesti and Arges band, teams who have made a significant contribution in terms of security activities performed on the two mountain trails.

For making the experiment we used specific materials and mountain activities proposed by me, such as boots, backpacks, raincoats, flashlights, harness, ropes, maps, boats, kayaks, descenders, etc..

The type of research involved the development of a protocol for observation and follow-up the subjects on the three proposed mountain tourist trails.

Depending on the established objectives there were a total of six variables, namely:

- Interest
- Socializing
- Collective integration
- Communication
- Collective behaviour
- Group rules

Behavioural significance of differences was calculated by chi-square method (X^2). Thus, we used SPSS, version 15, obtaining the following results:

The statistical significance of differences between the control and the experimental group

Crt No	Analyzed Variable	The X^2 value	Interpretation of the difference
1	Interest	3.66	Significant
2	Socializing	4.50	Significant
3	Collective integration	3.15	Significant
4.	Communication	5.12	Significant
5	Collective behaviour	6.58	Significant
6.	Group rules	7.14	Significant

Chart no.1 - The statistical significance of differences between the CONTROL group and the EXPERIMENTAL group

Conclusions

1. Mountain tourism develops human personality by stimulating the creativity, the developing of the spirit of independence and initiative, forms the collective work skills, strengthens the will, stimulates the self-improvement spirit in a disciplined framework, develops a sense of dignity, of courage, of honesty and fairness.
2. In all the six subjects participating in the experiment the behavioural analysis of the experimental group revealed that it is significantly different from the control group at a significance level of **0.001, p>0.05**.

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DEVELOPMENT OF TRAINING MODEL IN PERFORMANCE HANDBALL

Aurel Iancu¹

Keywords: Physical performance. Training program. Sport.

Abstract

Measurement of physical fitness is a common and appropriate practice in sports competition. The information obtained from testing will allow adjustments of the training program to meet an individual's specific fitness needs. The purpose of this study was to analyze the changes in performance variables in handball players during a training program

Introduction

Handball is a sport that presents physical efforts characteristics of high intensity and of short duration, with emphasis in the motor capacities of velocity and strength, especially the explosive strength and velocity strength. The mentioned training motor capacities is an important component of the physical performance, therefore, more attention should be dedicated to the development of specific physical conditioning (specific physical preparation) of handball players. Thus, handball as other collective sports, involves a sequence of activities that demand the anaerobic metabolism in a determining manner.

Thereby, it is observed that modern sports, specifically handball, demand from the physical trainers a well elaborated plan, especially in order to have the athletes reach optimum performance levels and receive an assistance of the dynamics development of the physical performance during a macro cycle training. On the other hand, it has been observed that the planning of the physical preparation has been elaborated based on methodologies considered inadequate to the high performance handball features.

Therefore, this study had as its aim to analyze the changes of the motor and metabolic capacities that act in the physical performance of handball players during a training macro cycle, submitted to a preparation program based on the periodicity model

Materials And Methods

Sample

The sample of this study, was intentionally selected, and consisted of 11 handball players who daily practiced, were between 20 and 32 years of age, weighted between 70,2 and 105,1 kg with an average of $89,5 \pm 10,4$ kg, and had height between 171,8 and 198 cm, with an average of $184,4 \pm 6,7$ cm, filiated to the CSS Targoviste team The athletes were informed about the study procedures

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and objectives and signed the agreement term whenever they agreed on participating in the research.

Data collection

All the individuals were submitted to two test routines: the first test routine was conducted in the beginning of the second training macro cycle (on May 07, 08 and 09) and the second on August 27, 28 and 29, 2009, two weeks prior the beginning of the second competition. All tests were conducted in the afternoon.

The second test routine followed the same order, starting with a standard warm-up and using the following order for the tests and measurements:

Day 1: Anthropometrical measurements, Vertical Jump Test.

Day 2: Moving Velocity Test – 40 m run,

Day 3: Sextuple Jump Test, Agility Test (square),.

Motor tests

Vertical jump test

The explosive strength of the lower limbs of the handball players was indirectly measured through the vertical jump. Only one jump technique was used: jump with countermovement and arm help (CMJ), having the individual three tries. The best try was the used result.

Moving velocity test – 40 m run

The 40 meters run test was applied to evaluate the moving velocity. The test consists of performing the effort in the highest velocity possible, only decreasing it after the 40 meters run. Each athlete had three tries, with a five minute interval between the tries to ATP-CP re-synthesis. The best result among the three tries was used.

Sextuple jump

It consists of six consecutive alternate jumps, to try to reach the furthest distance possible in meters. Each individual had two tries and the best result prevails.

Square test – agility

A test with change direction called “square” was used with the aim to measure the agility of the handball players. The space to be run was marked with four cones, set in a square shape with four meters away from each other. When the individual hears the command: “ON YOUR MARKS, GET SET, GO!”, he leaves from one of the cones, runs his fastest diagonally, passing behind the cone and heading paralleling towards another cone passing behind it, and diagonally towards the other cone, finally returning to the starting point. After that, without stopping the run, the individual repeats the same way to end the test. Each individual had two tries. The time register will be in seconds, through a photoelectric cell, being the best time between the two tries considered.

Training program

The program had a monocyclic structure. The macro cycle had a 16 weeks duration, beginning on the second week of May, ending on the fourth week of August, 2008. 11 handball players participated in a training program, five days per week, with training sessions of approximately two hours, to analyze the evolution of the physical performance measured through tests.

Data analysis

The data were analyzed through descriptive statistics, being the obtained results at different times of the study grouped in average and standard deviation values, and the differences were compared through student t test for repeated measures. The adopted significance level for all analyses was of $p < 0,05$.

Board 1 List of activities developed in each trening program		
BLOCK A	A 1 4 weeks	<ul style="list-style-type: none"> • Exercises in the muscles for resistance strength and strength/hypertrophy; • Circuits for the general and specific muscular strengthening; • Exercises with medicine ball for the upper limbs; • General technical trainings.
	A 2 3 weeks	<ul style="list-style-type: none"> • Multi jump exercises for explosive and rapid strengths; • Traction running exercises on sand and on grass for rapid strength; • Exercises with medicine ball followed by hits to the goal; • Muscle exercises for strength/hypertrophy and maximum strength; • General technical-tactical trainings (without settings).
	A 3 2 weeks	<ul style="list-style-type: none"> • Traction running exercises and still traction followed by technical movements (attack moves) in acceleration; • Exercises in depth jump; • Specific technical-tactical trainings (with settings).
BLOCK B	B 1 4 weeks	<ul style="list-style-type: none"> • Specific technical-tactical trainings (with settings); • Exercises in the muscles (maximum strength) followed by velocity exercises – (contrast); • Special resistance exercises (specific metabolism)
	B 2 weeks	<ul style="list-style-type: none"> • Velocity exercises with and without the ball; • Velocity resistance exercises; • Positioned and collective tactical training.

Results

In table 1 the results of the anthropometrical measures and of body mass are presented and the statistics analysis did not show any significant difference to the body mass and the height. However, a significant improvement of the % fat, statistically speaking, can be observed.

TABLE 1 Anthropometrical and of body structure characteristics		
	1st evaluation	2nd evaluation
Height (cm)	184,8 ± 7,2	184,4 ± 6,7
Body mass (kg)	89,9 ± 10,3	89,5 ± 10,4
Body fat (%)	15,8 ± 4,1	14,1 ± 2,9*

TABLE 2 Changes in the motor variables		
	1st evaluation	2nd evaluation
Vertical jump (cm)	45,2 ± 9,4	49,2 ± 8,1*
Sextuple jump (m)	15,2 ± 1,2	16,5 ± 1,2*

Agility (s)	19,7 ± 0,9	18,4 ± 0,5*
Velocity – 10 m (s)	1,77 ± 0,08	1,65 ± 0,18
Velocity – 40 m (s)	5,47 ± 0,29	5,30 ± 0,39

- **Statistically significant differences among the evaluations ($p < 0,05$).**

Examining table 2, positive and statistically significant changes for the vertical jump, the sextuple jump and the square test can be seen. An increase in the jump height (8,1%), an increase in the jump distance (7,8%) and a decrease in the time to perform the square test (6,4%) are observed. Therefore, the shown results in table 2 may lead us to the conclusion that important neuromuscular adaptations through the increase in the rapid strength, in the explosive strength and in the agility occurred.

We may observe a decrease of the necessary time to run the 10 and 40 meters distances in 6,8 and 3,1% respectively for the velocity, which is not statistically significant.

Analyzing table 3 we may assert that there was a positive change, however, not statistically significant for the absolute power (PA) and for the relative power (PR) of 1,9 and 5,9%, respectively. Concerning the time that the handball player took to reach the PA, the results showed statistically significant improvements of 11,2%.

Discussion

The specific characteristic of handball demands from players an effective participation in activities that need a good aerobic and anaerobic response. However, some authors report that handball is a sport that demands predominately the motor capacities that depend on the anaerobic metabolism(3-4,16).

Thus, it seems reasonable to affirm that the motor capacities strength and velocity and their ways of manifestation are crucial, since the technical and tactical capacities can be consistently superior when the handball players present high levels of adaptation of the anaerobic metabolism.

Thus, the exercises for the strength training, velocity and its manifestation ways should be used in physical preparation programs of high performance handball players, with the aim to potentiate the anaerobic metabolism adaptations and consequently obtain an optimum performance in the competition.

Following this way of thinking, studied the dynamics of the change of the motor capacities in an annual macro cycle, using concentrated loads and reported statistically significant increase for the explosive strength, measured through the static horizontal jump test between the A1 and A3 micro steps (six weeks). Concerning the rapid strength, measured through the sextuple jump test, the author did not find significant improvement, however, a slight change between the A1 and A3 micro steps was observed.. Concerning the actual study, though, it seems that the concentrated loads of velocity developed with the aim to improve the moving velocity need to be restructured, once the 40 meters run time decrease was statistically not significant. One of the training strategies used for the velocity development, especially in the B2 block, was to have running exercises for 5 seconds and after 20/30 seconds of rest, the handball player ran in velocity in the 5 and 20 meters distances.

Handball is a sport characterized by intermittent efforts, of varied extension and random periodicity. Thus, it is necessary to apply a test also with intermittent characteristics to detect the physiological adaptations.

Final considerations

The most remarkable considerations of this study are:

- This study confirms that the training program of handball players should have emphasis on exercises that promote adaptation in the anaerobic metabolism;
- The concentrated loads training methodology applied for 16 weeks, caused improvement in the motor capacities that predominately depend on the anaerobic metabolism;
- The concentrated loads represented training stimuli sufficient to produce statistically significant increases of the aerobic resistance in a 16 weeks period;
- The results analysis allows us to affirm the efficiency of the block training system in handball, due to the possibility to explore the adaptation supply, through the use of the concentrated loads.

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CONTRIBUTIONS TO THE MODELING OF PHYSICAL TRAINING OF JUNIOR HANDBALL PLAYERS WITH AN EMPHASIS ON THE TAKE-OFF

Aurel Iancu¹

Key words: take-off, jumps, handball

Abstract

The use of jumps inside the training of handball players represents a well recognised method of developing the physical capacity, especially at this age when working with weights is not quite recommended. **The purpose of this paper** is to determine the influence of jump exercises on developing the take-off at a group of handball beginners formed of boys aged 12-13 years, through the simple plyometrical method.

Introduction

The performance sport represents the model into which all efforts of the interested factors from the activity of training the children and junior teams are invested. The actual preoccupations of the sporting movement with direct connection to the children's and juniors' practice shows concern for organising and efficient preparation guiding at these levels of age.

On a methodic plan, the correlation between the content of the sporting instruction and the somatic, functional and physical particularities of the children is permanently sought, this practice being applied to the senior sportsmen on a moderate basis.

Orienting the instruction, as well as its content must be done according to the highest characteristics of the actual and future development of the world performance sport and with the close connection to the young people's capacity to progress on a physical, technical, tactical, psychological plan and in accordance with these possibilities the job specializing is beginning to become a little bit more clear.

Unfolding a modern training process means that one has to start since early childhood to use the elements of physical, technical, tactical elements, proven to be the most efficient ones, and not to begin with exercises and much more theoretical notions. Instructing children may begin by new models created beforehand by the coach, which, at some moment, are but hypothesis, but hypothesis that may later on become of maximum efficiency.

Inside the game of football, the effort is characterized by a heavy use of the neuro-psychical sphere, as well as of the metabolic one and of the neuro-muscular system. The correct estimation of the effort supported by players during a match represents a basic condition for orienting the training process. The effort solicited

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and each player's ability to adapt determine the quantity and variety of the preparation means and methods.

Achieving a close connection between the content and methodics of the training and the requests of the game, between the means of the general physical preparation, the specific physical training, the technical and tactical training according to the contest requests.

Great attention must be paid to the operational models which make possible the training under game conditions, the opposition relation by use of the numeric balance, numeric inferiority or superiority. The physical training encloses a whole system of measures which ensure a high functional ability of the organism, by the increased level of development of the basic and specific motric qualities.

Both for the beginners as for the performance sportsmen, the physical training constitutes the starting point and creates the necessary basis for approaching the other training components.

The take-off is a form of force manifestation and it is found in the special field literature under the name of explosive force, speed-force, and force under high speed regyme.

The process of improving the take-off is a difficult enough process, as it asks both for the process of choosing and quantifying the developing methods as for the operation of combining them in such a manner as to produce positive effects.

The plyometric method

The plyometric practice is known under more than one name: Zanon, 1975, names it „*the elasticity training*”, Schmidtbleicher, 1978, calls it „*excentric training*”, Schroder, 1975, gives it the name of „*reactive training*”.

Thanks to its efficiency, the plyometrics rapidly became well known by coaches and sportsmen and used to develop the explosive kind of force. As a training method, plyometrics is based on using the exercises which help a muscle reach a maximum of force in as short a period of time as possible.

Gilles Cometti divides the methods accomplishing the plyometric reaction into three groups:

- The simple plyometrical method;
- The tall plyometrical method;
- The weightening plyometrical method.

The simple plyometrical method uses jumps, foot or feet detachments, coard jumping, jumping over small obstacles (boxes, not very tall fences), leapead or juped steps, or, more briefly, the exercises from the jumps school, without weights or with easy weights.

Bosco, 1985, names the plyometric training the „hyper-gravity training”. He underlines the idea that the weights (vests) must not go beyond 13% of the weight of the body and sustains the idea that they have a positive effect on increasing the execution speed and the force-speed. The raise of the speed or of the force-speed in this case is the result of growing the number of moric unities subjected to conditions of hyper-gravity.

Zařiorski claims that the use of the plyometrical contraction in the athletic training produces an increase of the isometrical maximal force of 1,5 times.

Verhoşanski considers the plyometric training to be a „shock method” and does a few underlinings, especially important to the practical activity, and with direct reference to the approaching means.

The plyometrical training of reduced intensity presupposes the use of the simple plyometrical method which is used during well specified periods of the year, usually in the initial preparing times, for the increase of the plyometrical aptitude and also during the end precompetition periods, in order to maintain the plyometrical aptitude.

The plyometrical training of reduced intensity uses:

- Exercises based on the long or high take-off on one or both legs;
- Exercises with jumps over, from and on small obstacles, with both or only one leg;

This type of execution contributes to improving elasticity at the level of the ankle joint, but also to bettering the movement coordination.

The research hypothesis

Selecting and quantifying the instruction means represents a primordial necessity inside the actual training process. Standardising and rationalising the instruction means offers the trainer the possibility to judicially and efficiently use the time afforded to the instruction, by exercise experimenting.

Taking into consideration the purpose of the paper, -ways to develop the elan of the inferior limbs, by using the jumps method for the beginner handball players-, we have taken as a base hypothesis the following one:

We consider that by the use of the jumping exercises in the handball practice of beginner children players, the development indices will be significantly improved, this having a remarkable effect on the motric game behaviour.

The subjects

24 male subjects practicing handball and being part of the beginner group participated in realising this experiment. The 24 subjects were divided into two distinct groups: the experiment and the control group inside the Targoviste Sporting Club.

The research protocol

The research unfolded over 6 months, T.I. was realised in the month of September of the year 2009. The trainings took place both outside and inside the gymnasium, both groups profiting from the same training conditions, the difference consisting only in the fundamental part of the training for the experimental group, for which the exercises for developing the elan were introduced. The control group had traditional training conditions.

Both the initial and the final tests (T.I. and T.F.) were realised inside the gymnasium, at a temperature situated between 19-24 degrees in the morning, on a Monday, at 8.30. The test was taken on the first day of the week, as the children had 2 days of no specific effort.

The subjects' sporting equipment during the tests was identical. There were no health problems or accidents (muscular or of any other nature) to be reported to have appeared before the test and that might have badly affected the subject's performance.

The action systems were conceived to develop the take-off, the accent being placed on the execution speed, force (without weightening), elan and

technique. As a level of application, the force programs influenced at a greater extend the development of the superior limbs and trunk force, compared to the development of the inferior limbs. The elan completed the force motrical quality, in order to develop the inferior limbs. Inside the speed development we sought to develop the amplitude, the frequency of movements, of the speed reaction, and especially of the execution speed.

The difference between the action systems of the two groups consisted of applying exercises for developing the take-off in the experimental group. For the rest of aspects, the acting systems had as objective the general physical development and that of the motrical qualities, identical for both groups. With regard to the number of training sessions, three trainings were organised each week and in a similar manner for both groups; two trainings of the experimental group contained the independent variant.

Results

Test	P	3 successive jumps cm.	Vertical detachment on both legs cm.	Vertical detachment on the heat leg cm.	Height cm.	Weight Kg.	
The experi mental I group	Initial	M ±	541,667±2	33,75±2,179	42,25±2,094	160,167±1	50,33±1
		Ds	1,197			1,51	0,272
		Cv	3,913%	6,456%	4,956%	7,013%	20,408%
	Final	M ±	573,75±18	40,917±2,61	48,833±2,368	161,333±1	50,83 ±
		Ds	,563			1,19	10,241
		Cv	3,235%	6,379%	4,849%	7,014%	20,146%
The contr ol group	Initial	M ±	539,583±2	34,083±1,88	42,75±2,301	160,417±1	50,33±1
		Ds	0,038	1		1,14	0,272
		Cv	3,714%	5,519%	5,382%	6,949%	20,408%
	Final	M ±	540±19,26	34,833±1,74	43,333±2,229		50,75±9,
		Ds	8	9		161,5±10,	965
		Cv	3,568%	5,021%	5,144%	85	6,718%

Discussions

For the experimental group we may notice that the subjects' results in the 3 successive jumps are significantly improved (541,667±21,197 initially, and 573,75±18,563 after 6 months; at a significance level of $p < 0,001$), vertical detachment on both legs (33,75±2,179 initially, and 40,917±2,61 finally; at a significance level of $p < 0,001$), vertical detachment on one the heat leg (42,25±2,094 initially, and finally 48,833±2,368; at a significance level of $p < 0,001$). These results are a result of the superiority of the means used in the experimental group.

The results of the control group register insignificant increases: for the 3 successive jumps (539,583±20,038 initially, and 540±19,268 finally, at a significance level $p > 0,05$), vertical detachment on both legs (34,083±1,881 initially, and 34,833±1,749 finally; at a significance level $p > 0,05$) and vertical detachment on the heat leg (42,75±2,301 initially, and 43,333±2,229 finally; at a significane level $p > 0,05$)

The difference between the subjects from the two groups and with direct regard to the final testing shows a significant evolution favouring the experimental group: in the two successive jumps (the experiment group $573,75 \pm 18,563$; the control group $540 \pm 19,268$; at a significance level of $p < 0,001$), vertical detachment on both feet (the experiment group $40,917 \pm 2,61$; the control group $34,833 \pm 1,749$; at a significance level of $p < 0,001$), vertical detachment on the heat foot (the experiment group $48,833 \pm 2,368$; the control group $43,333 \pm 2,229$, at a significance group $p < 0,001$). These results confirm the work hypothesis of the positive effects of the jump exercises introduced in the training programmes of children aged between 12 and 13.

Conclusions and suggestions

The use of the simple plyometrical method and of the jumps exercises at beginner handball players has beneficially influenced the performance of those subjects from the experiment group.

We consider that introducing jumps exercises in the handball players' training is benefic for the increase in the take-off performance of the inferior limbs and on this basis we submit to the idea of putting together models of specialised physical preparation for beginner handball players.

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FACTORS THAT CONDITION THE SPECIFIC FEATURES OF THE PROFESSIONAL-APPLICATIVE PHYSICAL EDUCATION OF THE FUTURE ELECTRONICS TECHNICIAN

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Keywords: Hygienic working conditions; working postures; analytical functions important for the profession; general personal qualities; negative professional disorders.

Abstract

In the general context concerning the professional-applicative physical training of the future specialist, great importance must be given to the process of training the physical, psychological qualities, and psychomotor skills, for these can become the psycho-physical and motor basis of the electronics technician's future socio-professional activity.

Introduction

The aim of the physical education in technical-professional schools is to form the pupil's physique to be a systemic and integrative quality of his personality, a component of the future specialist's culture, capable to succeed in his instructive and socio-professional activities.

The final result of the instructive-educational process in the technical-professional school is the pupils' professional ability to succeed in socio-professional activities. This ability represents in itself a complex synthesis of the interconnected behaviors that characterize mainly the value-motivational aspects (of the personality) and the executive (process) aspect of activity. These components are being referred by:

1. The psychological consent, which determines the value-motivational attitude of the specialist towards the socio-professional activities;
2. The theoretical consent, characterized by a certain volume of knowledge from different scientific fields, necessary for the future profession;
3. The practical consent envisages a mastery of the specific professional technology and skills to apply it rationally, in order to attain the work-related objectives;
4. The psycho-physiological consent determines the level of working ability of the specialist that allows him to perform, for a long time in an effective manner, the socio-professional tasks, having increased his central nervous system functions, cardio-vascular system, respiratory system, and metabolic functions.

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5. The physical consent envisages that the state of health, of physical development and of the psycho-motor training should correspond to the demands of the professional activity and working ability.

The most important factor in the future specialist's consent for the socio-professional activity is the training for physical perfection and self-education as an element of professional training. Only by respecting the given conditions is ensured a long working ability.

In the specialized literature we find emphasized ideas regarding the direct correlation of working productivity with technical, and hygienic conditions, and the personal qualities of the specialist. There is mention of the fact that the dynamics and psycho-physical processes of the specialist during working tasks constitute a paradigm for determining the content of the physical education with a professional-applicative orientation. Any operation of technological processing is being intermediated by the personal qualities, psychologically and biologically, where, internally, it is based on a chain of conditioned and unconditioned reflexes that ensure the multilateral interactions of the man with the environment.

In many specialists' opinion the specific character of the working operations based on motor acts, is in direct correlation with the level of the functional state of the analyzing system, as well as with the state of the active and cognitive motor sphere - physical qualities (force, speed, endurance, agility, coordination), and the psycho-cognitive professional qualities (thought, memory, perception, attention, imagination).

It is well established the fact that the preponderance of physical or intellectual work determines the character of adequate concrete functions (V.Ceban, 2003). The named author considers that the greatest efforts are from, mainly, the neuro-muscular system, cardio-vascular system, respiratory and vegetative systems, secondly, it is necessary to sharpen the psycho-cognitive processes: attention, thought, perception, memory. That is why the character of the effort inside the process frame of professional work is in a tight correlation with the dynamic, cinematic, psycho-cognitive specificity, and not in the least with the ecologic specificity of the general and complex picture of the working sphere and conditions.

Thus, the character of work and productivity is conditioned by the limits and functional potential of the body systems that in a process aspect are variable values, which can change depending concrete conditions: age, fatigue, training, adaptation of the functional, vegetative systems, etc. (V.Ceban, S.Danial, 2004).

Material and method:

In order for to determine the basic components of the professiogram and its contents, I suggested an emphasis and examination of the exterior and interior factors:

1. The external (objective) factors - the demands of the professional work, production conditions (hygienic, psychological), socio-economic conditions, age, physical training, etc.
2. The internal (subjective) factors - the character of the dynamic work stereotype, the potential of the body's functional system, of the psychological and psycho-cognitive spheres.

We can mention the fact that fatigue and working ability (psycho-physical effort) are two dialectic categories, and the methodology of forming the resting (rehabilitation) intervals, and respecting the optimal correlations becomes the key issue in improving the working process and its results. The repeated moderate fatigue represents the positive factor for training-advancing of the body functions, if rehabilitation intervals are applied, necessary for performing a standard effort. That is why the working ability analysis of the electronics technician during a work day, in a week, becomes a landmark for the elaboration of a rational effort and rest system, as well as for forming and applying the active means (of physical culture) into the mentioned system.

The active means of physical culture have a relatively highly effective influence on the processes of functional rehabilitation of the body after effort. The use of psycho-motor activities inside the breaks, based on adequate dynamic and cinematic underlings, similar to the working activities, produces negative effects, creating difficulties during the rehabilitation process. This phenomenon is explained by the mechanisms of functional transfer (V. Ceban, S. Danail, 2004), which ensures a series of moves of the effort towards other nervous centers and functional systems, thus forming the core and compensation conditions inside the rested systems that did not have an active participation in the efforts concerning the working operations.

Moreover, the physical exercises, the psycho-motor activities (analytical, applicative) play an important role in forming the professional motor skills and in developing the functional systems of the body. For example, the exercises learned with dynamic and cinematic substructures similar to working conditions ensure not only a formation of a movement stereotype inside these operations, but also a working ability inside the working regime and an endurance to the inhibiting factors of the performance. Through this, the problem of using these exercises is linked to determining the character of professional movements in a dynamic and cinematic plane, and their manifestation in a physiological plane.

In the field of the professional-applicative physical education there were several competitions regarding the problem of determining the character of the specialized work, based on scientific investigations oriented towards elaborating classification indexes and grouping the processes (E. Drăganescu, 2000; L. Ion, 2003; V.Ceban, 2003).

In the scientific investigations I previously mentioned the classifications of the professions are based on the main working characteristics, these being divided in two groups:

1. The psycho-physiological characteristics of the work;
2. The hygienic and ecological conditions of the work.

For multiple research in the field of professional-applicative physical education, the given conception becomes the basis for classifying the professions, the description and elaboration of the professionogram for the specialist in certain production fields.

These ideas were supported and developed in the specialists' research in which the fundamental paradigm was the unity of the factors forming the functional integrative state of the specialist's personality: 1 - working position and movements; 2 - the volume of physical effort; 3 - working tempo and rhythmicity; 4

- monotony of working operations; 5 - the functioning of the psycho-cognitive processes; 6 - the degree of intellectual and emotional concentration. Now, after this approach, the profession classification contains 15 groups, which can become an orientation base for elaborating the profессиogram of the specialist in different fields of activity.

Analysis of the results

After studying the specialized literature regarding the contributive aspects concerning the elaboration of the profессиogram for the electronics technician, I observed that the classifications do not allow us to directly assimilate the strict character of the classification indexes, because they are in a great number and they have a generalizing character. That is why, in our investigations, for elaborating the profессиogram for the electronics technician, we must take into consideration these indexes that can be influenced through physical exercises and cultural psycho-motor (analytical-selective) activities. Having this in mind, I based my work on the research of different specialists (E. Filipescu,1999; E. Drăgănescu,2000; L. Ion, 2003; V. Ceban,2003), which lead me to determine the main factors that can shape the profессиogram of the electronics technician.

1. Hygienic and healthy working conditions;
2. Working postures and movements;
3. Analytical functions that are important for the profession;
4. General personal qualities;
5. Negative professional disorders;

The results of the analysis, of the specialized literature, pedagogical observations, socio-pedagogical poll, and biometric tests, allowed me to emphasize 45 indexes that are characteristic for the profession of electronics technician (Table 1).

In elaborating the analytical content of the profессиogram for the electronics technician, I was lead by the systematic principle representing an open and independent system through the paradigm of constitutive compartments, with compartments that can vary in their internal components, according to the aim and purpose of the research.

Table 1 Analytical project of the profессиogram indexes for the electronics technician (elaborated and modified based on V. Ceban, 2003)

Hygienic and healthy working conditions;	Working postures and movements;	Analytical functions that are important for the profession;	General personal qualities;	Negative professional disorders;
The professional activity is done under conditions of: 1.Bad climate - closed air. 2. Various types of	1.Standing and sitting 2.Operations are performed with both hands 3. Final coordination. 4. Working the body segments:	<i>Inner measurement:</i> 1. Spatial. 2. Angular 3. Tactile 4. Auditory 5. Vestibular stability <i>Attention:</i>	1.Emotional stability 2. Observing turn of mind 3. Initiative 4. Will 5. Psycho-physical endurance	1. Deficiencies of the musculo-skeletal system 2.Cardio-vascular disorders 3.Respiratory system 4.Central

pollution 3.Wasting poisonous chemical substances 4. Air ionization 5.Low and high frequency noises 6. Limited mobility 7. Aerobic regime	legs, back, arms, hands 5.Moderate and small efforts 6. Fine movements	6. Concentrated. 7. Distributive. <i>Precision of the:</i> 8. Postures 9. Movements 10.Operational memory 11.Operational thinking 12. Imagination <i>Perception:</i> 13. Visual. 14. Tactile 15. Auditory. 16. Olfactory	<i>Reaction speed:</i> 6. To the sound signals 7. Visual. 8. Olfactory factors 9. Irritant factors 10.Various situations regarding work safety	nervous system 5. Vegetative system 6. Traumas of the hands, respiratory organs, and sight
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Conclusions:

From the data presented so far, we can draw the conclusion that the work activity of the electronics technician is characterized, on one hand, by small and moderate physical effort, and, on another hand, by intense psycho-cognitive efforts in unhealthy and unhygienic conditions.

Thus, for ensuring an optimal working regime for the electronics technician, from the point of view of an effective functioning of all the body functions, it is necessary to form the educational content of physical culture, together with the developing influences for an anticipated training of the given systems, in order for the graduate to quickly adapt to the working conditions. Besides all these, the syllabus must contain also the aspect of training in the future specialist the cultural (analytical) motivations for a prophylaxis of work disorders, or in order to increase the body's resistance to the inhibiting factors of the working environment.

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