

INTERNATIONAL SESSION OF SCIENTIFIC COMMUNICATIONS

***THE ROLE OF PHYSICAL EDUCATION AND SPORT IN PROMOTING
A HEALTHY LIFESTYLE***

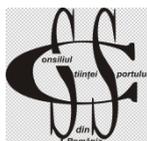
Bucharest, March 25th, 2016

All rights reserved; partial or total reproduction of this text, its multiplication in any form and by any means – electronic, mechanical, photocopying, recording or otherwise –, public delivery via internet or other electronic net, storage in a retrieval system for commercial purposes or charge-free, as well as other similar actions committed without the written permission of the publishers represent violations of the intellectual property rights legislation and are punishable under the criminal and/or civil law in force.

**MINISTRY OF NATIONAL EDUCATION
UNIVERSITY OF BUCHAREST
DEPARTMENT OF PHYSICAL EDUCATION AND SPORT**



**Under Aegis of the:
FÉDÉRATION INTERNATIONALE D'ÉDUCATION PHYSIQUE
ROMANIAN COUNCIL OF SPORT SCIENCE, BUCHAREST
SOCIETY OF SCIENCE, HUMAN EXCELLENCE AND UNIVERSITY
SPORT**



**INTERNATIONAL SESSION
OF SCIENTIFIC COMMUNICATIONS**

*THE ROLE OF PHYSICAL EDUCATION AND SPORT IN PROMOTING
A HEALTHY LIFESTYLE*

Bucharest, March 25th, 2016

Coordinator: Professor PhD Remus Dumitrescu



editura universității din bucurești®
2016

Scientific reviewers:

Professor PhD Alina-Mihaela Stoica, University of Bucharest

Professor PhD Daniela Aducovschi, University of Bucharest

Honorary President

PhD Professor Branislav ANTALA. FIEP World Vice President. ICSSPE Executive Board Member, Comenius University, Faculty of Physical Education and Sports, Bratislava, SLOVAKIA.

Conference President

PhD Professor Alina-Mihaela Stoica

Director of D.E.F.S, University of Bucharest

Scientific Committee

PhD Professor Branislav ANTALA. FIEP World Vice President, Slovakia

PhD Prof. George Balint (Romania / FIEP Europe Vice President)

PhD Dusan Mitic, University of Belgrade (Serbia)

Ph.D Prof. Adrian Dragnea – Doctor Honoris Causa (Romania)

PhD Prof. Sanda Toma- Doctor Honoris Causa (Romania)

PhD Prof. Alina-Mihaela Stoica (Romania)

PhD Prof. Boris Rășneac (Moldova)

PhD Prof. Ciorbă Constantin (Moldova)

PhD Prof. Remus Dumitrescu (Romania)

PhD Prof. Constantin Ionescu-Târgoviște (Romania)

PhD Prof. Vasilica Grigore (Romania)

PhD Prof. Theodor Damian (USA)

PhD Prof. Ioan Neacșu (Romania)

PhD Prof. Roxana M. Bologa (USA)

PhD Prof. Ing. Adrian Olaru (Romania)

PhD Assoc. Prof. Horia Daniel Iancu (Canada)

PhD Lecturer Ana-Maria Gungel (Turkey)

PhD Assoc. Prof. Zeinep Filif Dinc (Turkey)

PhD Assoc. Prof. Ibrahim Inan (Turkey)

Psychologist Ines Chicós (USA)

PhD Lecturer Mircea Slăvilă

PhD Prof. Gloria Rață (Romania)

PhD Prof. Ioan Lador (Romania)

PhD Prof. Tatiana Dobrescu (Romania)

PhD Prof. Emilia Grosu (Romania)

PhD Prof. Dorina Orțănescu (Romania)

PhD Prof. Graziela Elena Vâjială (Romania)

PhD Prof. Traian Bocu (Romania)

PhD Prof. Liliana Mihăilescu (Romania)

PhD Prof. Marius Stoica (Romania)

PhD Prof. Georgeta Niculescu (Romania)

PhD Prof. Elena Sabău (Romania)

PhD Prof. Doina Croitoru (Romania)

PhD Prof. Mihaela Netolitzchi (Romania)

PhD Prof. Elena Moldovan (Romania)

PhD Assoc. Prof. Liliana Becea (Romania)

PhD Prof. Carmen Gugu-Gramatopol (Romania)

PhD Assoc. Prof. Ioana Porumb (Romania)

PhD Prof. Daniela Aducovschi (Romania)

PhD Prof. Cristiana Lucreția Pop (Romania)

PhD Assoc. Prof. Jean Firiță (Romania)

PhD Lect. Cristina Filip (Romania)

Organizing Committee

PhD Assoc. Prof. Robert Sakizlian

PhD Assoc. Prof. Dan-George Moise

PhD Lect. Adriana Stoicoviciu

PhD Lect. Bogdan Gozu

PhD Lect. Costinel Mihaiu

PhD Lect. Marius Leștaru

PhD Lect. Monica Sakizlian

PhD Lect. Ghiocel Bota

PhD Assistant Florin Lițoi

PhD Assistant Monica Gulap

Assistant Oana Maria Ganciu

Assistant Cătălin Șerban

Financial Adm. Angelica Dumitrescu

Department Secretary Lizica Voicu

© *editura universității din bucurești*®

Șos. Panduri, 90-92, București – 050663, România

Telefon/Fax: (0040) 021.410.23.84,

E-mail: editura.unibuc@gmail.com,

Web: www.librarie-unibuc.ro/magazin/

Centru de vânzare: Bd. Regina Elisabeta, nr. 4-12, București,

tel. (0040) 021.305.37.03

Coperta și tehnoredactare: Meri Pogonariu

ISSN 1843-7079

PHYSICAL EDUCATION SECTION

EVALUATION COMMITTEE:

Professor Mihaela Ganciu PhD

Professor Georgeta Niculescu PhD

Professor Boris Râşneac PhD

Daniela Aducovschi

COORDINATION FACTORS THAT INFLUENCE THE LEARNING OF JIVE STEPS BY STUDENTS

Ines Chicos

THE CORRELATION BETWEEN SELF-ESTEEM AND ACADEMIC MOTIVATION OF STUDENTS IN THE CONTEXT OF MODERN SOCIETY

Remus Dumitrescu

A STUDY OF THE PERSONALITY TYPE AND ITS RELATIONSHIP WITH THE PHYSICAL EDUCATION AMONG THE STUDENTS FROM UNIVERSITY OF BUCHAREST

Remus Dumitrescu (coord.), Alina-Mihaela Stoica, Daniela Aducovschi, Mihaela Ganciu, Robert Sakizlian, Moise Dan-George, Bogdan Gozu, Monica Sakizlian, Costinel Mihaiu, Marius Leștaru, Ghiocel Bota, Florin Lițoi, Monica Gulap, Cătălin Șerban, Oana Ganciu

STUDY CONCERNING THE STUDENTS' OPTIONS ACCORDING TO THE EDUCATIONAL OFFER OF THE PHYSICAL EDUCATION AND SPORT DEPARTMENT FROM UNIVERSITY OF BUCHAREST

Mhaela Ganciu

STRATEGIES USED TO IMPROVE THE EFFORT CAPACITY THROUGH FOLK DANCES, IN HIGHER EDUCATION

Monica Gulap

STUDY REGARDING THE OPINIONS AND THE PERCEPTION OF THE STUDENTS FROM THE UNIVERSITY OF BUCHAREST ABOUT THEIR QUALITY OF LIFE

Marius Leștaru

PREVENTION AND CORRECTION OF THE MISTAKES IN THE KARATE TECHNIQUES WITHIN THE PHYSICAL EDUCATION CLASSES AT THE UNIVERSITY OF BUCHAREST

Mihai Cristian Negoescu

SELF-DEFENSE MODULES FOR STUDENTS

Monica Cristina Sakizlian

THE EFFECTS OF AEROBICS PRACTICE ON THE OVERALL PHYSICAL TRAINING LEVEL OF THE UNIVERSITY OF BUCHAREST FEMALE STUDENTS

Robert Sakizlian

EVALUATION OF THE TECHNICAL PARAMETERS OF THE BASKETBALL PLAYERS FROM THE UNIVERSITY OF BUCHAREST

Adriana Stoicoviciu

ANALYSIS OF THE GAME PLAN PARAMETERS FOR THE WOMEN'S BASKETBALL REPRESENTATIVE TEAM OF THE UNIVERSITY OF BUCHAREST AND THE ESTABLISHMENT OF SMART OBJECTIVES IN ORDER TO IMPROVE PERFORMANCES

Eren Uluöz, Cem Yoksuler Yılmaz, İrem Kavasoglu, Ana Maria Günsel, Zeynep Filiz Dinç

A STUDY ON THE SPORTS TRAINING AND INSTRUCTION IN TURKEY: AN OVERVIEW OF HIGHER PROGRAMS IN THE AREA OF SPORTS

COORDINATION FACTORS THAT INFLUENCE THE LEARNING OF JIVE STEPS BY STUDENTS

Factorii de coordonare care influențează învățarea pașilor de jive la studenți

DANIELA ADUCOVSKI

DPES, University of Bucharest, Romania

Corresponding author: daniela3810@yahoo.com

Abstract

Introduction. Dance sport practiced in physical education classes is contributing significantly to the development of coordination abilities and prepare young people for life. Jive is a dance energetic, highly entertaining, with a discharge of energy that delights young age and satisfy their demands. Every analyzer is directly involved in the quality of motor action.

Objectives. We share great argument that the level of development and coordination abilities of expression, with the specific means of Section Latin dance, jive. We intend to identify the components of coordination abilities that have most engaged the students in jive .

Methods. The experimental method by taking notes and improvement, the grading and measuring method, the mathematical and statistic method, the graphical representation method.

Results. We can say that the result is highly significant percentage recorded by the difference between the results of group averages reject the null hypothesis.

Conclusions and Reference. For the males, t- TEST is significantly stronger allowing us to conclude that the figures chosen curriculum program has contributed substantially to the development of coordination and faster learning.

Key words: jive, coordination capacity, specific steps

Introduction

The most relevant analyzers when it comes to dance movement are the kinesthetic, visual, aditive, tactile and vestibular analyzers. All of them weight in to the successful realization of the motions and actions that are specific to dance in a way that makes it impossible for us to determine whether one of them is more important to the others. If a subject were to be striped of either one of these senses, dance would no longer have the value we would desire from a technical and plastic point of view. (Saulea, D., 2005)

Gagea, A., 2002, considers that developing coordination requires specific training towards the goal. "Through controlled repetition, the movement form nears what we would conventionally call well controlled movement. We are talking about the process of stereotype learning." The process though which coordination is improved is very limited and at the same time individualized, because at the same volume individuals will progress differently and icnreasing it will not yield significant increases in coordination. The jive learning method has this specific idea, which we think is perfectly justified, at it's very core. With the help of the stereotype process we hope that the actions that make up the learning procedure of the technical structures that are specific to dance also increase general coordination. At the same time, the process, by means of the tests and trials employed, proves that some dances have powerful influencing factors that develop both coordination and the specific technique.

Hipotesis: *The coordination capacity components manifest as influencing factors with different bearings in the execution of the jive dance.*

Aim: To create a scientific argument regarding the particular bearing of the level of the development and articulation of the coordination coefficient, through the specific means of the jive basic steps.

Materials

Sound system, 2/4 or 4/4 tempo music, ruler, scarf, measure tape, 5 m of white tape applied to the ground (A-B), gymnastics bench.

Method

Experimental method

The proposed experiment is both a fact finding and an improvement type experiment as thought the means used we attempt to develop the coordination skills of the subjects

Measurement and evaluation method

- Control trials and test applied in the investigation of coordination capacity: Matorin test, Flamingo test, distance assesement test, rhythmic capacity test, movement combination test;
- Jive specific control test: 4 basic step choreography – individuale execution.

Mathematical-statistical method

Data gathered though the tests was interpreted using mathematical-statistical calculations, in which a series of indicators allowed for a complex analysis of the existent relations.

Graphical representation method

Graphical representation allowed for the highlighting of the results of the experiment.

Investigated subjects

15 males paricipated in the experiment. All of them were in the first year of college when the experiment began nad all of them opted for dance as a P.E. class.

The subjects are stundents from all the faculties of the University of Bucharest. They range in ange between 19 and 21 years. The lessons were planned according to the university curricula for one year.

Jive program content:

Table 1. *The Jive program from the latin dance section had a total of 16 basic steps:*

Jive specific steps	Test – 4 basic step choreography – individual execution
1. Chasse` to Left or to Right	T 1-2-3-4-5-6 – Basic in Place
2. Basic in Place	T 1-2-3-4-5-6 – Basic in Fallaway
3. Basic in Fallaway	T 1-2-3-4-5-6 – Change of Place Right to Left
4. Change of Place Right to Left	T 1-2-3-4-5-6 – Change of Place Left to Right
5. Change of Place Left to Right	T 1-2-3-4-5-6 – Basic in Place
6. Link	T 1-2-3-4-5-6 – Basic in Fallaway
7. Stop and go	T 1-2-3-4-5-6 – Change of Place Right to Left
8. American Spin	T 1-2-3-4-5-6 – Change of Place Left to Right
9. Catapult	
10. Whip	
11. Change of Hands Behind Back.	
12. Change of Places from Left to Right	
13. Change of Places from Right to Left	
14. Change of Places from Right to Left Overturned	
15. Change of Places from Right to Left with Doble Spam	
16. Slow Toe and Heel Swivels	

Evaluation method: Execution is individual and every corect step awards 2 points. Maximum 16 points. Every incorectly executed step (physical & muscical) penalises the individual with 2 points.

Table 2. *Statistical indicators at IT and FT for student jive test*

Nb. Crt.	Sportsmen	Points		Statistical Indicators	Points	
		I.T.	F.T.		I.T.	F.T.
1	O. I.	0	2	Average	4,93	7,73
2	R. V.	4	6	Standard error	0,80	0,97
3	V. C.	6	10	Median	6,00	8,00
4	N. A.	6	8	Modul	4,00	2,00
5	F. T.	0	2	Standard Deviation	3,10	3,77
6	B. C.	8	14	Dispersion	9,64	14,21
7	G. R.	10	12	Amplitude	10,00	12,00
8	I. S.	4	6	Minimum	0,00	2,00
9	C. N.	0	2	Maximum	10,00	14,00
10	M. M.	6	12	Result Sum	74,00	116,00
11	B. D.	4	8	Number of Subjects	15	15
12	W. R.	4	6	Confidence level(95.0%)	1,72	2,09
13	A. S.	8				10
14	M. S. M.	6				10
15	G. E.	8				8

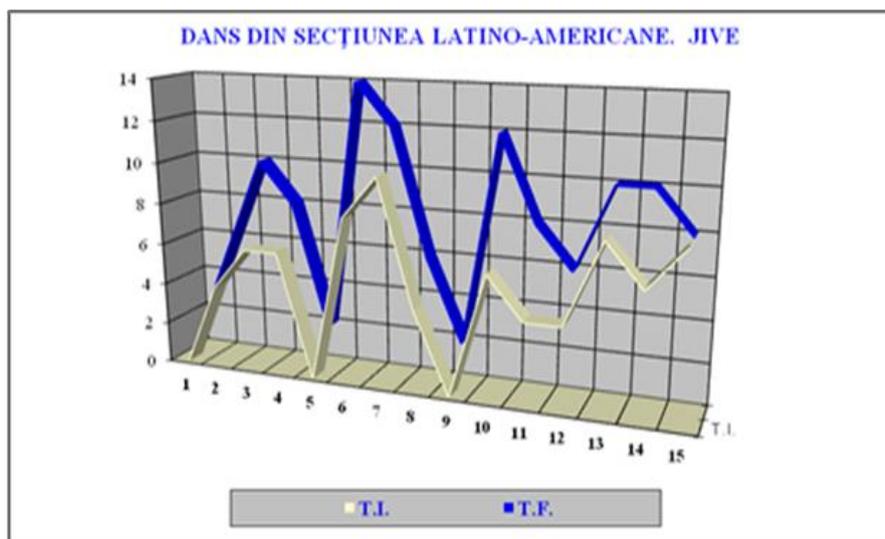


Fig. 1. Comparative graphic for F.I. and F.T values

Table 3. Student test (t-test)

RESULTS	I.T. - F.T
Pearson Corelation	0,902
Average Diference (Null hypothesis)	0,000
Freedom degrees	14
t Statistic (calculated)	-6,548
P(T<=t) (unilateral test)	0,000
Unilateral t critical test (tabel val.)	1,761
P(T<=t) (bilateral test)	0,000
Bilateral critical t test (tabel val.)	2,145

Table 4. Influence factors

Influence Factors	SS	Influence degree (%)
Flamingo Test	35,446	17,82
Distance assesment	distance	16,151
Rhythmic capacity	rhythmic	86,253
Capacity	C&C movement	28,297
Matorin	right rotation	0,127
Matorin	left rotation	0,075
Other	influence	32,594

- Average – grew from 4,93 (I.T.), to 7,73 at final testing.
- Median – changed from 6,00 at I.T. to 8,00 at F.T.
- Standard deviation – grows with 0,60 points at final test (3,10 – 3,77).
- Dispersion – lowers group homogeneity by means of an increase from 9,64 points at I.T., to 14,21 at F.T.
- Amplitude – increases by 2 points from the initial test (10,00 – 12,00).
- t-TEST – null hypothesis is rejected, test is strongly significant as $p = 0,000$, lower than 0,05 initial probability threshold.

Results

Table 5. *Influence Factors*

Sportsmen	Jive points	Influence factors					
		Balance (Flamingo) tries	Distance assessment points	Rhythmic capacity points	Movement combination capacity pts.	Rotational coordination degrees pts (R)	Rotational coordination degrees pts (L)
O. I.	2	1	85,10	0,00	2	360	360
R. V.	6	2	91,79	80,00	8	360	360
V. C.	10	1	92,88	100,00	12	415	360
N. A.	8	2	97,32	100,00	14	360	360
F. T.	2	2	91,84	0,00	5	450	360
B. C.	14	4	96,20	100,00	14	405	360
G. R.	12	2	91,31	100,00	11	360	360
I. S.	6	1	84,12	90,00	8	360	315
C. N.	2	1	93,64	70,00	6	450	460
M. M.	12	2	92,77	100,00	13	360	315
B. D.	8	1	87,90	100,00	9	360	270
W. R.	6	3	91,66	80,00	6	315	315
A. S.	10	2	95,11	100,00	13	360	360
M. S. M.	10	1	95,38	100,00	13	405	360
G. E.	8	2	94,08	100,00	14	405	360

Table 6. *Statistical Regression Students*

Statistical Regression		Values
Multiple correlation coef (R)	multiple correlation(R)	0,91
Determination degree (R ²)		0,84
Adjusted R ²		0,71
Standard Error		2,02
Nb of observations		15

Table 7. *ANOVA*

Variation Source	df	SS	MS	F	P
Regression	6	166,34	27,72	6,80	0,01
Rezidual Values	8	32,59	4,07		
Total	14	198,93			

REGRESSION EQUATION

Jive = 25.83 + 1.27 Flamingo – 0.31 Distance Appreciation + 0.02 Rhythmic capacity + 0.82 Movement combination capacity + 0.00 Right Matorin + 0.00 Left Matorin

Table 8. *Coordination Capacity influence factors*

Influence factors	SS	Influence degrees (%)
Flamingo Test	35,446	17,82
Distance Assesment	distance	16,151
Rhythmic capacity	rhythmic	86,253
Capacity	C&C movement	28,297
Matorin	right rotation	0,127
Matorin	left rotation	0,075
Other	influences	32,594



Fig. 2. Residual Values

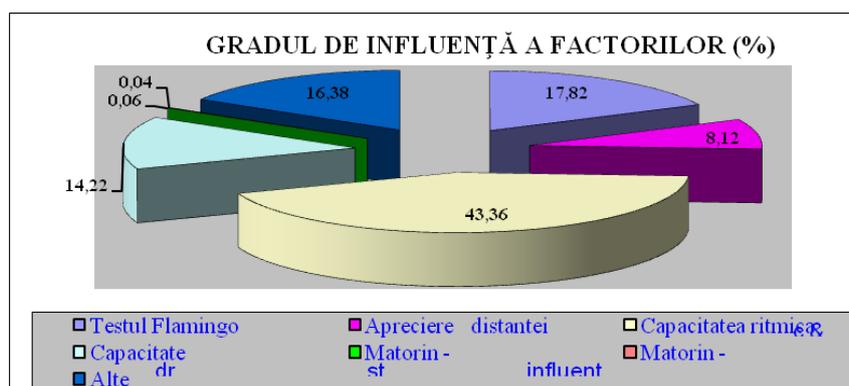


Fig. 3. Influence degree of coordination factors

Conclusions

The Flamingo test is one of Jive's influence factors for boys. A possible explanation for this is the necessity that one has to lead his partner during choreography in a dynamic way that is not met in other latin dances. Rhythmic capacity comes in first place for boys followed by linking and movement combination capacity on a very high tempo - this is where the difficulty of execution stems from.

The test is very significant as the results of the T test for boys are very close to 0.

These results allow us to conclude that the dance program has offered a significant contribution to the development of coordination. Jive movements require precision, speed of execution, suppleness in movement, spatio-temporal orientation and the automatization necessary in the quick linking of the movements.

References

- ADUCOVSCI, D., (2007), *Dans sportiv – Manual pentru studenții Universității din București*, Edit. Universității din București.
- ADUCOVSCI, D., (2008), (coord.) și colectivul DEFS, *Sistemul de evaluare la educație fizică – pe discipline sportive – în Universitatea din București*, Edit. Universității din București.
- GANCIU, M., (2012), (coord.) și colectivul DEFS, *Curs de educație fizică pentru studenții Universității din București*, Edit. Universității din București.
- SAULEA, D., (2005), *Dans sportiv – Capacitățile coordinative, în învățământul universitar de neprof়il*, teză de doctorat, București, p. 96.
- THOMAS, J., NELSON, J., (1996), *Metodologia cercetării în activitatea fizică*, vol. I și II, CCPS- SDP, București, p. 375, 377, 386, 389.
- TUDOR, V., (1999), *Capacitățile condiționale, coordinative și intermediare – componente ale capacității motrice*, București, Edit. RAI, p. 121-134.
- TUDOR, V., (2001), *Evaluarea în educația fizică școlară*, Edit. Printech, București, p. 82-90.

THE CORRELATION BETWEEN SELF-ESTEEM AND ACADEMIC MOTIVATION OF STUDENTS IN THE CONTEXT OF MODERN SOCIETY

Corelația dintre stima de sine și motivația academică a studenților în contextul societății moderne

INES CHICOS

Abstract

This research purpose is to identify the correlation between the students self esteem and their academic motivation.

In this research there were used questionnaire (identifying respondent's portrait), Rosenberg Self-esteem Scale and Academic Motivation Scale. These were applied from November 2014 to August 2015 on a sample of 170 students of both sexes from the University of Bucharest. The data are introduced and operationalized with the Microsoft Excel (2007) and Statistical Package for the Social Sciences (IBM SPSS Statistics, v. 20).

The research results show that high self-esteem is correlated with high academic motivation.

This is also confirmed by other studies where high self-esteem and strength is an important factor in the prediction of academic achievement in students (Mohammad, A. 2010).

Keywords: self-esteem, academic motivation, adaptation

Introduction

Individuation (adolescent's fighting for autonomy and differentiation or personal identity) involves a gradual evolution, independent, progressive structure of self-identity, which does not involve the presence of stress or some major disorder; it lasts throughout adolescence until late adolescence (20 -24 years) and in fact, is the beginning of independence from parents and the formation of a mature and responsible relations with them (Block, 1981 quoted by Petersen, 1988).

When there are successes, adolescent self-esteem increases, and it manifests itself: confidence, strength of ongoing actions, the desire to overcome the difficulties, activism, self-consciousness of honor and duty. Opinions of others regarding his/hers actions become very important. The development of self-identity is slower due to material, emotional (for comfort and belonging), mentality (values) dependency, which can cause conflicts and frustrations between adolescent and parents. As such, it can lead to behaviors too rigid or too loose, which significantly influences the evolution of his/her personality. A number of studies have shown positive correlations, but not on a large-scale, between educational achievement and low self-esteem (West, Fish and Stevens, 1980; Hansford and Hattie, 1982), although the determination of causality is not yet clear, studies performed, achieved opposite results. Thus, it can be assumed that the relationship between low self-esteem and achievements is mutual.

Debesse (1970) states that adolescence has two functions: the adaptation to the environment when the adolescent forms his behavior and habits in order to respond to social external demands, to integrate himself in the society and exceed the objectives set. This explains the fact that some teenagers are eager of overtaking, being in a state of permanent search, they are dissatisfied and manifest trends to perfection, while others are more at peace with what they do and achieve and are more docile and pliable. Motivation and personal effectiveness affects essentially, the adolescent behavior. Together with the skills and attitudes, motivation constitutes an element that energizes or blur the mental reserves and maintain or inhibit some tensions, leading to some degree of involvement in activities. Motivation is the underlying involvement in activities, making up reasons. Through them, the goals and interests are selected and ranked, leading to the formation of aspirations, where the

emotional component is critical during adolescence. Adolescents with a high degree of personal efficacy are more likely to do well in school (Zimmerman et al, 1992). Personal beliefs related to efficacy are important in vocational development (Betz, 1994; Betz and Hackett, 1981).

Methods

In this research there were used questionnaire (identifying respondent's portrait), Rosenberg Self-esteem Scale and Academic Motivation Scale. These were applied from November 2014 to August 2015 on a sample of 170 students of both sexes from the departments of Bucharest. The data are introduced and operationalized with the Microsoft Excel (2007) and Statistical Package for the Social Sciences (IBM SPSS Statistics, v.20).

Table 1. *Breakdown of participants' frequency/attendance Department*

	Frequency	Percentile	Valid Percentile	Cumulate Percentile
Valid	FPSE	53	31,2	31,2
	Economics	53	31,2	62,4
	Medical School	8	4,7	67,1
	Arts/Letters	15	8,8	75,9
	Technical Departments	41	24,1	100,0
	Total	170	100,0	100,0

We can notice that there are equal proportions of gender representation in a ratio of $\frac{1}{4}$ male respondents (23.5% Tr) and $\frac{3}{4}$ female respondents (76.5% Tr). Aside from the gender, the profile of participants is filled by age variable with a cumulative percentile until the age of 30 of 94.1%, while the statistical average is 22.26 years - the vast majority of respondents being in the II year of study (82 people = 48.2% Tr) and third year (78 people = 45.9% Tr).

These respondents have different residences and different income variables, identified by income or variable home. Depending on the variable income we are observing a balanced ratio from 100-399 EURO (51 individuals = 30% Tr), 400-499 Euro (56 individuals = 32.9% Tr) and over 500 EURO (61 individuals = 35.9% Tr).

Regarding the variable housing, among the most common response options are: family (70 individuals = 41.2 %Tr); with colleagues / rent (44 individuals = 25.9%Tr); students dorm (43 individuals = 25.3% Tr).

Analysis of results

Self-esteem instrument - Rosenberg participants reported an average score of 24.82 for self-esteem. The responses provided by the subjects investigated showed scores that ranged from a minimum score of 10 points (low self-esteem) to a score of 39 points (high self-esteem). The standard deviation of 7,604 indicates a data dispersion around the high value. The distribution of scores obtained, as shown in the frequency table, is as follows: 10.6% of respondents show a low self-esteem; 40.6% of subjects presented average self-esteem; 49.4% of them show high self-esteem.

The histogram reflects an asymmetry/skewness coefficient of -0.231. This value indicates a negative asymmetry, i.e. a slight tilt to the right of the frequency distribution curve. So the subjects investigated tended to get more middle and high scores. Kurtosis coefficient (-0.706 <0) shows a flattened distribution where the scores of subjects in this group tended to scattered around an average value.

The Academic Motivation of participants reported an average score of 33.95. The responses provided by the subjects investigated showed scores that ranged from a minimum score of 10 points (overall low academic motivation) to 62 points maximum score (overall average score of the academic motivation). The standard deviation 15,184 indicates data dispersion around a high value. The histogram reflects an asymmetry / skewed coefficient (skewness) of -0.314. This value indicates a positive asymmetry, ie a slight tilt to the left of the frequency distribution curve. So, the investigated subjects tended to get more low average scores. The Kurtosis coefficient (1113 <0) indicates a slightly abnormal flattened distribution, where the scores of subjects in this group tended to scattered around an average value.

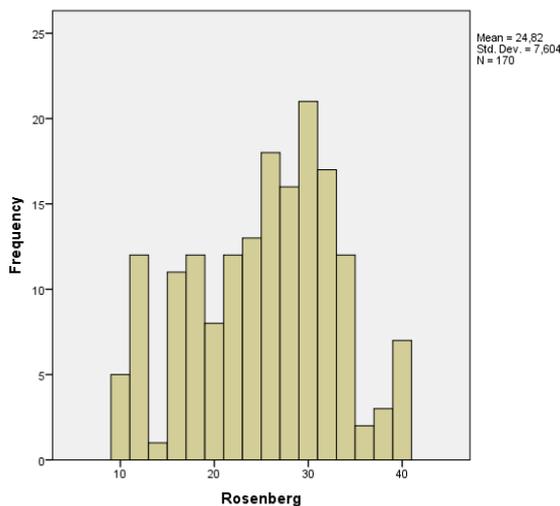


Fig. 1

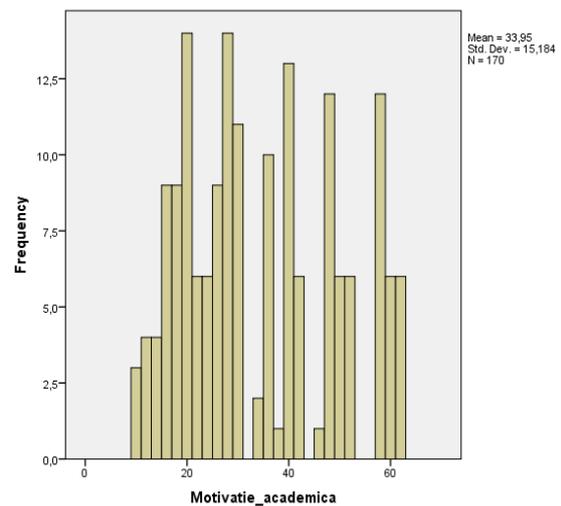


Fig. 2

The Pearson correlation test was applied in order to analyze the correlations in the studied variables. Statistical results are presented as calculated correlation coefficients, along with the confidence intervals and correlation coefficients corrected for the accuracy. Interpretation of the results was based on the corrected coefficients.

Table 3.

Self Esteem	Academic Motivation (Overall score)			
	$r_{\text{calculated}}$	$r_{\text{calculated}}$ 95% CI		$r_{\text{corrected}}$
		Low Limit	High Limit sup.	
Self Esteem	.52**	.40	.65	.62**
Academic Motivation (Overall score)	.46**	.32	.52	.57**

$N = 170$. * $p < .05$; ** $p < .01$.

The overall scores of the instruments were used in interpreting the above table.

Conclusions

The research results show that high self-esteem is correlated with high academic motivation. This is also confirmed by other studies where high self-esteem and strength is an important factor in the prediction of academic achievement in students (Mohammad, A. 2010).

Many young people think that the transition from high school to the college is negative and generates stress. (Pancer and others, 2000; Wintre and Yaffe, 2000). Many students feel overwhelmed in their first college year by the academic requirements (Sax et al, 1999).

A lot of students living both in campuses and with their parents exhibit psychological disorders and even mental confusion in the first year of college, while some of those who live far from family mentions cognitive failures (Fisher and Hood, 1987).

References

- BELL, L. G., & BELL, D. C., (2005), *Family dynamics in adolescence affect midlife well-being*. Journal of family psychology, 19(2), 198.
- CHURCH, E., (1994), *The role of autonomy in adolescent psychotherapy*. Psychotherapy: Theory, Research, Practice, Training, 31(1), 101.
- DEBESSE, M., (1970), *Child Psychology from birth to teenager*. Edit. Didactică și Pedagogică, Bucharest.
- FULIGNI, A. J., ECCLES, J. S., (1993), *Perceived parent-child relationships and early adolescents' orientation toward peers*. Developmental psychology, 29(4), 622.

- HANSFORD, B. C., & HATTIE, J. A., (1982), *The relationship between self and achievement/performance measures*. Review of Educational Research, 52(1), 123-142.
- HELGESON, V.S., (1994), *Relation of agency and communication to well-being: Evidence and potential explanations*. Psychological Bulletin, 116, pp. 412-428.
- KREVANS, J., & GIBBS, J. C., (1996), *Parents' use of inductive discipline: Relations to children's empathy and prosocial behavior*. Child development, 67(6), 3263-3277.
- MOHAMMAD, A., (2010), *Relationship Between Self-esteem and Academic Achievement Amongst Pre-University Students*. Journal of Applied Sciences, 10: 2474-2477.
- PETERSEN, A. C., (1988), *Adolescent development*. Annual review of psychology, 39(1), 583-607.
- ZIMMERMAN, B. J., BANDURA, A., & MARTINEZ-PONS, M., (1992), *Self-motivation for academic attainment: The role of self-efficacy beliefs and personal goal setting*. American educational research journal, 29(3), 663-676.
- ZIMMERMAN, B. J., (1995), *Self-efficacy and educational development*. Self-efficacy in changing societies, 202-231.

A STUDY OF THE PERSONALITY TYPE AND ITS RELATIONSHIP WITH THE PHYSICAL EDUCATION AMONG THE STUDENTS FROM UNIVERSITY OF BUCHAREST

Studiu privind tipul de personalitate și relația cu activitatea fizică a studenților Universității din București

REMUS DUMITRESCU

University of Bucharest-DEFS, Romania

Corresponding author: remusdumitrescu@yahoo.com

Abstract

Purposes: The purposes of our study regarded the determination of personality types and their correlation with the subjects' preferences for certain sports activities.

Material and method. The research method consisted in the application of Tyrer questionnaire, P (2006), by the aid of which the subjects' type of personality was determined. The questionnaire contains 7 main indicators as possibilities of answer (A, B, C, D, E, F, G), each of them containing 24 under-indicators. The subjects, boys and girls, had the possibility to identify, out of the 7 alternatives, the one who is the closest to the description of their personality. The period of applying the questionnaire was November 2015- January 2016.

Results. The subjects' repartition after the gender criteria showed that girls represented a percent of 66,43% (188 subjects), and boys 33,56% (95 subjects). When it comes to the repartition after the personality type criteria, firstly, it was observed that the majority of 263 subjects, representing 92,93%, could belong to one of the 7 types. A number of 20 students (7, 07%) were unsure and they could not be classified in just one personality type. However, 16 students, identified themselves in 2 personality types, 3 subjects in 3 personality types and one student obtained 4 types of personality. The distribution of students after lots, taking in account the academic year and the type of personality, shows us that a number of 19 students from the first and the second academic year could not identify with just one type of personality, in comparison with the students from the third and the fourth academic year, who had only one unsure representative. Out of those who identified precisely in one type of personality, we identified those from the first lot, the majority of students from the first and the second academic year who chose the A and G personality indicators. Those from the third and the fourth academic year, chose the A type of personality. At the second lot, the A and G types of personality, represent a 52,37 %, more than a half out of the experimental lot. At the third lot, the majority of subjects chose the A type of personality, in a 40,25%.

Conclusions. Our based on Tyrer questionnaire (2006) study allows us to formulate the following conclusions:

1. the types of personality who predominate are included in the A indicator, so, the percentages among the subjects from the A lot are 34,92% girls and 31,75% boys. Among the subjects from the second lot, we have 34,17% girls and 38,46% boys, and the subjects from the third lot are 39,13% girls and 48,43 boys.
2. out of the amount of examined subjects, 263 representing 92,93 %, could identify themselves in one of the 7 investigated types of personality, with the aid of the questionnaire indicators;
3. we could not observe significant differences between the two genders (boys and girls) in the affiliation to the 2 extreme personality types, A and G;
4. the A personality type predominates the majority of academic years.

Key Words: students, types of personality, physical activities.

Introduction

“A complex analysis of personality should take into account the following aspects: the dynamic-energetic component (temper), the instrumental-operational (aptitudes), the relational-valuable (character) and the creativity.” (Stănculescu, E. 2008).

“As particular purposes, the psychomotricity wants: the kinesthesia, the perception and the complex representation of movement development, the improvement of the movement capacity, aimed at the precise adaptation at requests and the control of the body; the evaluation of the psychometric potential by the appreciation of the relationship between the biological age and the chronological one, the development of the basic and applied metrical skills and habits: walking, jumping, tossing,

equilibrium, climbing, traction, the metrical qualities improvement: force, speed, resistance, handiness.” (Albu, C. *et. al.* 2006).

Purposes. The objectives of our research regarded the determination of types of personality and their correlation with the subjects’ preferences to certain sports activities.

Material and Method. The questioned subjects (283) were divided in three lots:

- the first lot – (101) students from the Mountain Sports Activities discipline (Mathematics, Administration and Business, Chemistry, Geography, Biology, Physics);
- the second lot – (105) students from the Chess discipline (Foreign Languages, Letters, Geology, Philosophy, Journalism, Sociology, Political Sciences);
- the third lot – (77) students from the fitness-bodybuilding discipline (History, Orthodox Theology, Psychology, Law).

The research method took in account the structure of the Tyrer questionnaire, P (2006), adapted to our purpose, for the determination of the subjects’ types of personality. The questionnaire has 7 main indicators as answer possibilities (A, B, C, D, E, F, G), including 24 under-indicators. The significance of each indicator was explained to the subjects, leading to the fact that three of them had three identical descriptions. This is why we wanted a higher precision of the subjects, in order to fit in, having the possibility to identify the one, out of the seven possibilities, who is the closest to the description of their personality type. The application period of the questionnaire was November 2015- January 2016 (table number one).

Table 1. *The characteristics of the human personality (after Tyrer, P. 2006)*

Type of personality	Characteristics	Type of favorite activities
Pretentious/ Ambitious/ Die- hard/Alfa type (A)	Active, energetic, pertinacious, handy, very conscientious, in clover, babbler, aggressive when it comes to language and actions, needs to have a new purpose all the time and wants to obtain a new success, does not have time for extra-professional physical movement.	Physical care activities: 1. Running 2. table tennis, 3. swimming, 4. roller skating, 5. basket, 6. walking.
Indifferent/Calm/ Nerdy Beta type (B)	Lazy, Quiet, Stable, Modest, Introvert, Boring or Charming, Polite, Sociable, Generous, Hates Physical Movement, is a convicted inactive	Activities which combine the effective with the pleasure: 1. practical activities 2. walking 3. riding the bike
Prudent Gama type (C)	Careful, Anxious, Unconfident, Worried, Uncomfortable, avoids responsibilities	Therapeutic activities: 1. stretching, 2. jogging, 3. swimming.
Careless Delta type (D)	Professional instable, wants a change in profession and in love, actively implied in extreme sensations, careless, impulsive, childish, has a lot of unusual hobbies that implies movement.	Endurance activities 1. swimming, 2. marathon, 3. cycling 4. escalades
Suspicious Epsilon type(E)	Solitary, unconfident in those from his working place and from his family, prefers the children company, where he feels safe, hardly supports critics, loyal as a friend, suffers from stress, prefers the solitude or a small entourage, thin, abstemious when consuming food and drinks.	Individual activities: 1. mountain trips 2. globe-trotter
Underdog Zeta type (F)	Enjoys group life, wants to be in the center of attention, concealed, unsure, sensitive to the environment, suffers from mental stress, can’t stand solitude.	Group activities: 1. cross 2. double tennis 3. squash
Ceremonial/Formal Eta type (G)	Formalist, methodic, pedant, organizes depending on the week’s days, does not like changes or modernism.	Weekly planned activities: 1. fitness-bodybuilding, 2. footbal, 3. swimming.

Results and discussions

The students' repartition after gender showed that girls represented a number of 188, (66,43% of the subjects), and boys-a number of 95 (33,56%).

In the experiment, the subjects had the following distribution: First Lot, 63 girls - 38 boys; Second Lot, 79 girls - 26 boys; The Third Lot, 46 girls - 31 boys (table no. 2, fig. 1).

Table 2. The subjects' repartition after gender(girls-boys)

Gender	First Lot	Second Lot	Third Lot	Amount
Girls	63 (33,51%)	79 (42,02%)	46 (24,46%)	188
Boys	38 (40,00%)	26 (27,36%)	31 (32,63%)	95
Amount of subjects 283				

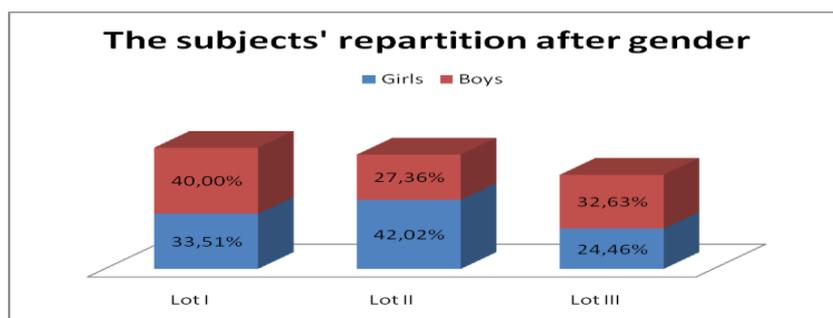


Fig. 1. *The subjects' repartition after gender gen (girls-boys)*

The students from the three lots had ages between 18 and 24, the average value being $19,76 \pm 0,35$ years. When it comes to the general repartition after age and gender, the girls had an average of $21,80 \pm 0,66$ years, comparative, the average being $19,45 \pm 0,37$ years (table no. 3, fig. 2).

Table 3. The subjects' repartition after age

Age	Girls	Boys	Average Value
Media	21,80	19,45	19,76
Median	22	18	18,5
Standard error	0,66	0,37	0,35
Standard deflection	1,48	2,12	2,19
Interval	4	6	6
Minimal Value	20	18	18
Maximal Value	24	24	24
Number of observations	188	95	283

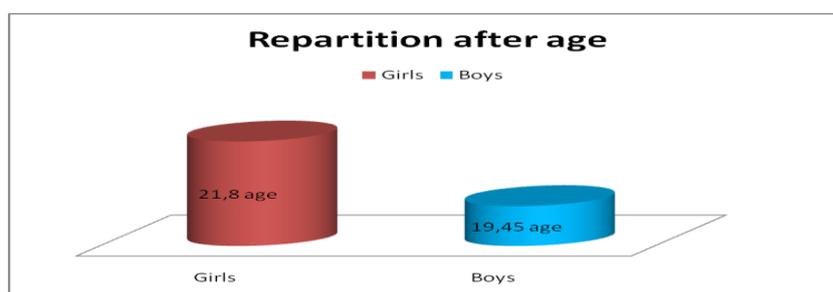


Fig. 2. *Average values of the subjects' age*

The subjects' repartition after the academic years showed us similar values between boys and girls from the first lot, from the Mountain Sports Activities. In the second lot's case, we can identify a superiority of the girls from the first and the second academic year, obtaining a 72,37%. When it comes to the third lot, we find again the same superiority of the girls in the first and the second academic year, while we identify an almost double number in the amount of the older ones comparative to the first and the second lot. (Table no. 4 fig. 3).

Table 4. The distribution of study subjects after year

Acad emic year	Lot I					Lot II					Lot III				
	Total	girls	%	boys	%	Total	girls	%	boys	%	Total	girls	%	boys	%
I	59	34	33,66	25	24,75	73	58	55,23	15	14,28	42	28	36,36	14	18,18
II	35	24	23,76	11	10,89	25	18	17,14	7	6,66	20	12	15,58	8	10,38
III-IV	7	5	4,9	2	1,9	7	3	2,8	4	3,80	15	6	7,79	9	11,68
	101					105					77				

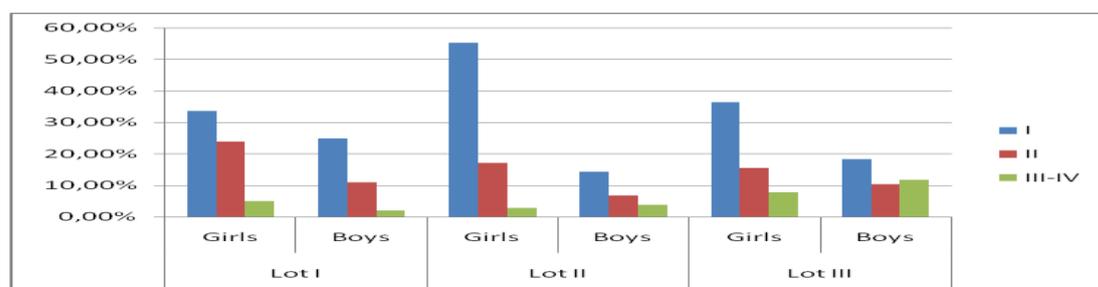


Fig. 3. Distribution of subjects in batches after year of study

When it comes to the 283 subjects' repartition after the type of personality, we observed that the majority of the 263 students, representing 92,93%, could find themselves in one of the seven types. The rest of 20 subjects, representing 7,06%, were unsure and could not find themselves in just one type of personality, being forced to choose 2 types - 16 students, 3 types-3 students, 4 types- 1 student. (table no. 5, fig. 4).

Table 5. Distribution of subjects in batches by type of personality

Variable	Tip A	Tip B	Tip C	Tip D	Tip E	Tip F	Tip G	Options for type 1	Threads undecided				Total subjects
									2 types	3 types	4 types	total undecided	
Nr	91	41	13	9	16	21	72	263	16	3	1	20	283
%	32,15	14,48	4,59	3,18	5,65	7,42	25,44	92,93	5,65	1,06	0,35	7,06	

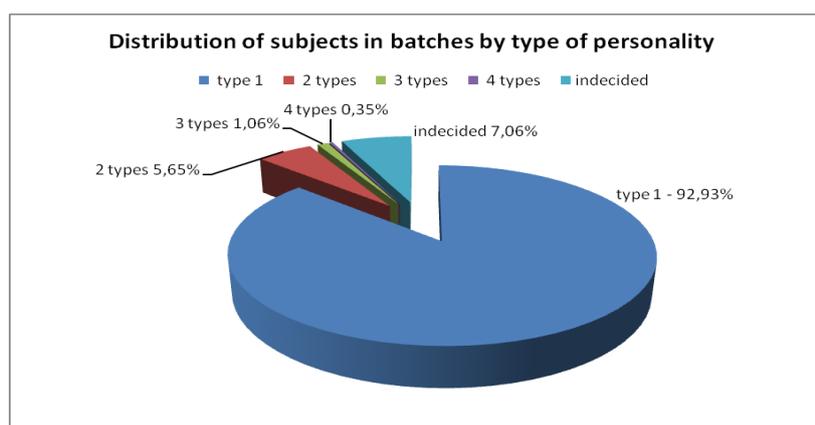


Fig. 4. The 283 subjects' repartition after the type of personality

At the first lot, 66,33% of the subjects belong to 2 extreme types of personality (A and G), those from the A type having a very small advantage in front of the others (38 students for the A type and 29 for the G type)

At the second lot, the majority 52,37% belong to the same two types of personality, but we can observe a changed report, smaller of those belonging to the A type (22 subjects), in comparison of those belonging to the G type. (33 subjects).

At the third lot, almost half of subjects belongs to the A type of personality (40,25%).

When it comes to those who could not fit in just one type of personality, we must observe that a bigger balance is represented by the second and the third lot (10 and 8 subjects), in comparison with just two subjects from the first lot (table no.6).

Table 6. *Distribution by type of personality subjects within the 3 groups*

Lot		Type A	Type B	Type C	Type D	Type E	Type F	Type G	The unsure ones	Total
I	No	38	13	3	0	6	10	29	2	101
	%	37,62	12,87	2,97	0,00	5,94	9,90	28,71	1,98	
II	No	22	19	6	2	7	6	33	10	105
	%	20,95	18,09	5,71	1,90	6,66	5,71	31,42	9,52	
III	No	31	9	4	7	3	5	10	8	77
	%	40,25	11,68	5,19	6,66	3,89	6,49	12,98	10,38	
		91	41	13	9	16	21	72	20	283
		32,15	14,48	4,59	3,18	5,65	7,42	25,44	7,06	

From the point of view of relationships between types of personalities, we can observe that the female subjects from the first and the second lot preferred extreme types, A and G. The exceptions come from the ones belonging to the third lot, where girls chose two types A (39,13%) and B (17,39%). We identify in boys from the second lot that they prefer the A type (38,46%) and the B type (19,23%), and in the third lot, that they prefer the A type (48,38%) and the B type (22,58). It must be mentioned the fact that, while in the female gender, the average of percentages shows us that there are differences between the two types where 36,07% prefer the A type and 19,54% prefer the G type, among the boys, the average of those belonging to the A personality type is bigger (39,47% prefer the A type and there are only 15,17% who prefer the G type. However, the subjects' proportion of those who are unsure about just one type of personality has similar values: the female gender,62%, the male gender 7,74% (table no. 7 and table no. 8).

Table 7. *The subjects' repartition after gender (female)*

Girls		Type A	Type B	Type C	Type D	Type E	Type F	Type G	The unsure ones	Total
I	No	22	12	4	3	4	2	13	3	63
	%	34,92	19,04	6,34	4,76	6,34	3,17	20,63	4,76	
Lot II	No	27	11	3	5	4	7	18	4	79
	%	34,17	13,92	3,79	6,32	5,06	8,86	22,78	5,06	
III	No	18	8	1	2	3	1	7	6	46
	%	39,13	17,39	2,17	4,34	6,52	2,17	15,21	13,04	

Table 8. *Subjects' repartition after gender (male)*

Boys		Type A	Type B	Type C	Type D	Type E	Type F	Type G	The unsure ones	Total
I	No	12	8	2	1	3	1	9	2	38
	%	31,57	21,05	5,26	2,63	7,89	2,63	23,68	5,26	
Lot II	No	10	5	1	2	1	0	4	3	26
	%	38,46	19,23	3,84	7,69	3,84	0,00	15,38	11,53	
III	No	15	7	1	2	1	1	2	2	31
	%	48,38	22,58	3,22	6,45	3,22	3,22	6,45	6,45	

If we distribute the 283 students from the academic year and the type of personality criterias, we observe that more than 61,48% of students (174 subjects) were in the first academic year.

The second academic year: on the first place, it is the A personality type (46 subjects), equally followed by the B and the G personality types, having 35 subjects, and, on the third place, there are the unsure ones (15 subjects).

The second academic year: 31,25% fit in the A type, followed by those belonging to the G type (26,25%), and, on the third place, are those classified with the B type (22,5%).

The third and the fourth academic year: most of the students belong to the A and the G types (41,37% the A type and 17,24% G type). We observe that only one student from the third academic year could not fit in just one personality type.

The students' repartition after the lot, academic year and personality type criteria shows us that in smaller academic years I and II, there is a higher number of students who could not fit in just one personality type in comparison with the older ones III-IV (table no. 9).

Table 9. *The subjects' repartition after the academic year criteria*

Academic year		Type A	Type B	Type C	Type D	Type E	Type F	Type G	The unsure ones	Total
I	No	46	35	13	10	11	9	35	15	174
	%	26,43	20,11	7,47	5,74	6,32	5,17	23,80	8,62	
II	No	25	18	4	3	3	2	21	4	80
	%	31,25	22,5	5,00	3,75	3,75	2,5	26,25	5,00	
III-IV	No	12	2	2	3	2	2	5	1	29
	%	41,37	6,89	6,89	10,34	6,89	6,89	17,24	3,44	

Conclusions

Our based on Tyrer, P. (2006), questionnaire study, allows us to formulate the following conclusions:

1. the personality types who predominate are the A type, so, among the subjects from the first lot, the percentages are: 34,92% girls and 31,57% boys, among the subjects from the second lot, percentages of 34,17% girls and 38,46% boys, and among the subjects from the third lot, the percentages are 39,13% girls and 48,38% boys.

2. out of the amount of the questioned subjects, 263, representing 92,93%, could identify with one of the seven personality types.

3. there were not significant differences related to the gender and to the affiliation with the two extreme personality types, A și G;

4. the A personality type predominates in most of the academic years.

Bibliography

- BOROȘ-BALINT I, TACHE S., (2007), *Particularitățile psihofiziologice ale individului, stresul și efortul fizic*. Paletica Mileniului III, 2 (28), p. 93-98.
- BOROȘ-BALINT, I., (2007), *Personalitatea și activitatea fizică a studenților*. Paletica Mileniului III, 4(30), p. 273-277.
- ALBU, C., ALBU, A., VLAD, T.,L., IACOB, I., (2006), *Psihomotricitatea*. (Psychomotricity) European Institute, Iași, p. 10
- STANCULESCU, E., (2008), *Psihologia educației-de la teorie la practică*. Editura Universitară, București, p. 217.
- TYRER P., (2006), *Cum rezistăm la stress*. Ed. Antet XX, Press, p.37-41, p.47-68, p. 131-136.

STUDY CONCERNING THE STUDENTS' OPTIONS ACCORDING TO THE
EDUCATIONAL OFFER OF THE PHYSICAL EDUCATION AND SPORT
DEPARTMENT FROM UNIVERSITY OF BUCHAREST

Studiu privind opțiunile studenților Universității din București raportat la oferta
educațională a Departamentului de Educație Fizică și Sport

REMUS DUMITRESCU^{1*} (coord.), ALINA-MIHAELA STOICA²,
DANIELA ADUCOVSCI³, MIHAELA GANCIU⁴, ROBERT SAKIZLIAN⁵,
DAN-GEORGE MOISE⁶, BOGDAN⁷GOZU, MONICA SAKIZLIAN⁸,
COSTINEL MIHAIU⁹, MARIUS LEȘTARU¹⁰, GHIOCEL BOTA¹¹, FLORIN LIȚOI¹²,
MONICA GULAP¹³, CĂTĂLIN ȘERBAN¹⁴, OANA GANCIU¹⁵

¹⁻¹⁵ Physical Education and Sport Department-University of Bucharest, Romania

* Corresponding author: remusdumitrescu@yahoo.com

Abstract

Sumptions. It is known that in the not profiled universities, the motivation for physical activities is totally different from the one students have in profiled universities.

Targets. Our enterprise aimed at highlighting student's preferences in a particular sport and if there is a continuity of organized physical activities from the school environment in the university one.

Methods. The study was carried out on a sample of 4155 students from all years of study, including master, of which: 2834 girls and 1321 boys.

A centralized evidence has been conducted based on the applications students had filled at the registration for physical education and sport courses at the beginning of the university year, in which each student had chosen one subject from all 20 available in the educational offer of the department.

Results. Of the total 4155 students, Quadratic Chi test indicates a value $p < 0.001 < 0.05$, for $\chi^2 = 1107.789$ and 19 liberty degrees. It results that the differences concerning the choice of the subject between girls and boys are statistically different and considerable.

Divided on Exact Sciences and Humanities Sciences, it has been determined that the percentage for Exact Sciences is predominant for the majority of sports, with the exception of Self-defence, Bodybuilding-fitness, Handball, Karate, Aerobics and Medical Gymnastics. Quadratic Chi signification test applied to the frequency registered on the 2 groups of Sciences about the practice of sports by boys and girls, show statistically considerable differences between the 2 groups, signification threshold $p < 0.001$, for $\chi^2 = 273.69$ and 19 liberty degrees.

Conclusions. As it is clear from our study's data, in general, students manifest a predominant interest in some sports, such as Bodybuilding-fitness, Aerobics, Sport Dance, Football, Tennis and Table Tennis. Depending on gender, girls prefer Bodybuilding-fitness, Aerobics, Sport Dance, and boys prefer Bodybuilding-fitness, Football and Table Tennis.

Keywords: preferences, educational offer, physical activities, field of science

Introduction

During all these years, the Department of Physical Education and Sports, through their specialists, sought to promote new sport disciplines which are attractive and accessible for students.

We are continuously seeking disciplines that not only attract students to put into practice physical education, but also to participate into competitions with representative teams of their desire. Motivated by the absence of decent conditions to work, respectively rooms and their auxiliary elements- lockers, showers or toilets which are not spacious enough, we have attracted students by compensating with what was lacking, offering them the possibility of choosing the favorite discipline and a configuration of the programs based on their needs.

It is important to mention that within the University of Bucharest, only three faculties have an compulsory regime, the majority of them, on the other hand, having either a mandatory or an optional

regime. The documents through which the faculties deliver the Department of Physical Education and Sports didactic norms are elaborated at the beginning of each university year, depending on the number of those engaged or promoted during the previous year. Each faculty, depending on the budget assigned for sports activities, may or may not financially support the physical education courses.

In this context, our offer is truly plentiful and attractive, which results in the physical education courses representing a main of interest for a great number of students.

At the level of not profiled universities, although this curricula is introduced in the complementary disciplines which are part of the obligatory disciplines together with fundamental and specialized ones, because of the vague documents, each faculty interprets and applies as they wish the obligatory or the optional regime of this curricula.

In addition, according to order no. 3309 from 02.03.2009, the physical education and sport curricula was introduced in the common core with one hour of physical education per week.

In conformity with the decision of the Senate office, starting with years 2002-2003, at the end of the university year, the students are being given marks (admitted-rejected) as well as supplementary credits.

However, there were also faculties which preferred the verification system based on a grade (Foreign Languages and Literatures, Business administration, Letters, Geography, Mathematics, Computer science, Physics, Orthodox theology).

Now, the University of Bucharest consists of 18 faculties, with physical education and sport courses during 4 semesters with a total of 112 hours of applications, one two-hour course per week.

In retrospect, we found out that the number of students attending these courses did not progressively grow with the number of faculties integrated over the years into the University. This makes us believe that this way of organizing the physical education and sport system is not one of the most efficient and that it must be improved.

To make the physical education courses pleasant, a flexible system was introduced, in which the student can choose what and when he wants to practice, taking into account the schedule he has (synchronizing their schedule with ours). This is how the Request for registration appeared, a document that a student must have when attending classes and the chosen branch of sports.

This system was applied in 1995. We have offered our students a large pallet of sports (Mountain sports, Athletics, Self-defense, Badminton, Basketball, Bodybuilding-Fitness, Dance, Football, Judo, Handball, Karate, Aerobics, Medical Gymnastics, Swimming, Chess, Tae-Bo, Tennis, Table Tennis, Volleyball), so that, even if physical education is mostly optional, all sports gyms are full and the students are definitely pleased.

To make the registration easier, we want, in the near future, to make online registrations so students can reserve their place in the first 2 weeks, according to their wishes.

In specialty papers there are still a lot of controversies about the motivational factors and the actual ways of motivating the sportsmen.

One of the main ideas of sport psychology is that the motivation of why one practices a sport can be different. For example, some practice it to gain fame or prestige, others for money and others do it just for pleasure. (Craciun, M., 2008)

The complexity of the university environment and of its employees makes it necessary to design a reward/recognition system that will provide the leadership with different ways of pleasing each employee, because each person cherishes different things. Moreover, the reward system must be correlative with the professional performance.

Recognition is something we all want and try to get. Researchers have shown that recognition is one of the most appreciated things.

Purpose of the work

We want to identify what preferences students from higher non profiled education have for physical education and sports and the possible influence of their Sciences profile in which they specialize.

Objectives and tasks

- identification of the stimulations spectrum through the educational offer, opportunities which determinate the students participation in physical education and sport, and their preference for a particular sport.

- identification of the students attitude towards a particular sport through which they rediscover themselves, growing the interest for continuing to practice a sport at the university.
- based on a comparative analysis by gender (boys-girls) and on their science field, we want to identify their preferences towards a sport.
- identification and ranking of each sport through the number of students registered.

Hypotheses

1. It was supposed that students have an additional motivation for physical education and sport activities organized in the university environment, these having some expectations about the material base and high educational standards.

2. Choosing of a particular sport can be influenced by vocational aspects, science field in which they specialize, such as developing self-perception.

Subjects and methods

The subjects undergoing the experiment are students from all 17 faculties of University of Bucharest, who have a cooperation protocol with the physical education and sport department, through annual release of order notes associated with a number of groups, implicitly teaching loads. Students who had medical relief in high school were included in the groups of medical gymnastics, chess, or swimming.

The experimental sample included 4155 students from the University of Bucharest, from all years of study, including master, 2834 girls and 1321 boys.

According to the curriculum specific to the 17 faculties, we can observe the following aspects:

- 3 faculties have obligatory schedule: business administration, physics, foreign languages;
- 14 faculties have an optional schedule: letters, geography, mathematics, computer science, orthodox theology, biology, chemistry, law, philosophy, history, journalism, psychology, sociology, political science, geology.

The period assigned to include students in the study was October-December 2015. Application forms for Physical Education and Sport courses, centralization and statistical interpretation of data was conducted at the end of the first semester, of university year 2015-1016.

Methods

Subjects received an application form designed by authors, through which they can identify and evaluate opportunities in Physical Education and Sport activities preferentially practicing particular fields, in number of 20, part of the educational offer.

To measure these applications considering gender, faculties and sports, a centralizer was designed with 17 horizontally items for faculties from 1 to 17 and a number of 20 vertically, for sports from 1 to 20.

Statistically processing the results

The data obtained with the help of research instruments and techniques were processed and presented to come up with a conclusion.

After collected data had been grouped and defined, we used computer product SPSS 17 and Microsoft Office Excel, version 2007, programs used for statistic analysis, calculating statistical indicators, correlation analysis and graphical representation.

From the range of instruments offered by these computer products we used Square Chi test (χ^2), trying to verify the compliance of distributed actual data with data of a theoretical distribution, based on following elements: situation, coincidence and lack of coincidence.

Results

Comparisons have been made between boys and girls, on faculties for all fields of study. Because there were identified a lot of frequency lower than 5, the statistical algorithm could not work so there was no P valid, with the exception of comparison of total values for boys and girls.

Table 1. *Square Chi Test*

Settings	Values
Chi square (χ^2)	1107.789
df	19
P	<0.001

Square Chi test indicates a value $p < 0.001 < 0.05$, for $\chi^2 = 1107.789$ and 19 liberty degrees. It results that the differences in choosing the subject, between girls and boys, are statistically different and semnificative.

In this situation we grouped faculties on profiles and specializations to make possible cummulation and avoidance of frequency lower than 5.

The following distribution came out:

- **Exact Sciences:** mathematics, computer science, physics, chemistry.
- **Humanistic Sciences:** business administration, biology, geology, letters, geography, orthodox theology, law, philosophy, history, journalism, psychology, sociology, political science, foreign languages.

Table 2. *General centralizer in descending order including all subjects (male and female)*

CENTRALIZING THE SUBJECTS- FEMALE AND MALE																	
Disciplines	Foreign Languages	Business Administration	Mathematics	Letters	Sociology	Geography	Orthodox Theology	Biology	Psychology	Physics	Law	Philosophy	Geology	Political Sciences	History	Journalism	Chemistry
Total	1136	728	414	287	279	207	205	175	159	137	114	80	68	61	48	34	23
4155																	

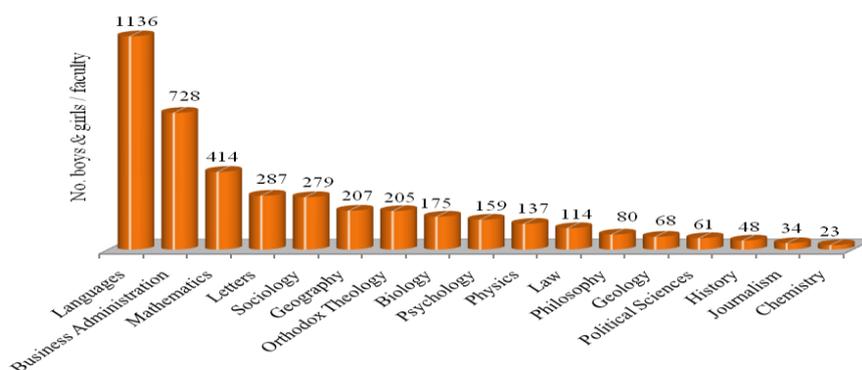


Fig. 1. *Graphical representation of students per faculty*

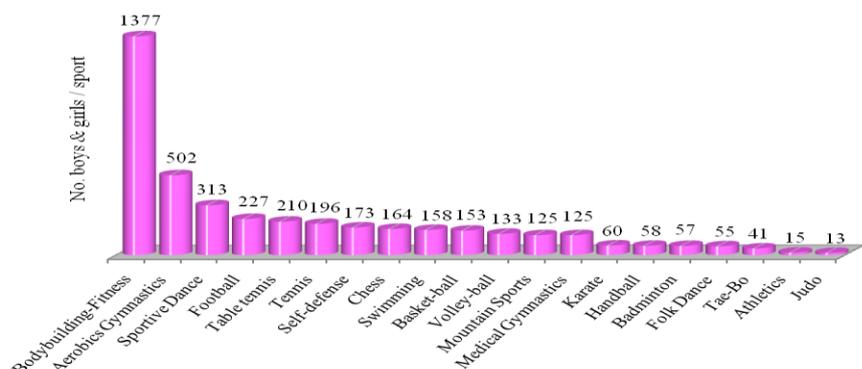


Fig. 2. *Graphical representation of students per sports*

Table 3. General centralizer in descending order including all female subjects

CENTRALIZING THE FEMALE SUBJECTS																
Disciplines	Foreign Languages	Business Administration	Letters	Sociology	Biology	Mathematics	Psychology	Geography	Physics	Law	Philosophy	Political Sciences	Geology	Journalism	History	Chemistry
Total	991	470	253	232	162	147	139	122	69	67	45	39	32	28	23	15

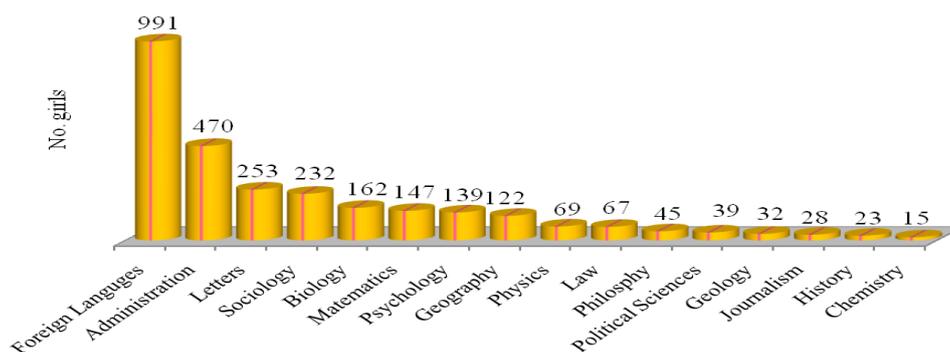


Fig. 3. Graphical representation of female students per faculty

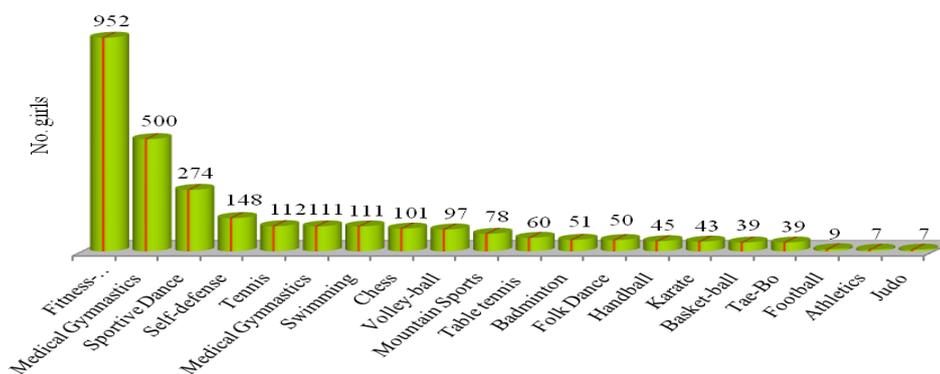


Fig. 4. Graphical representation of female students per sports

Table 4. General centralizer in descending order including male subjects

CENTRALIZING THE MALE SUBJECTS																	
Disciplines	Mathematics	Business Administration	Orthodox Theology	Foreign Languages	Geography	Physics	Law	Sociology	Geology	Philosophy	Letters	History	Political Sciences	Psychology	Biology	Chemistry	Journalism
Total	267	258	205	145	85	68	47	47	36	35	34	25	22	20	13	8	6

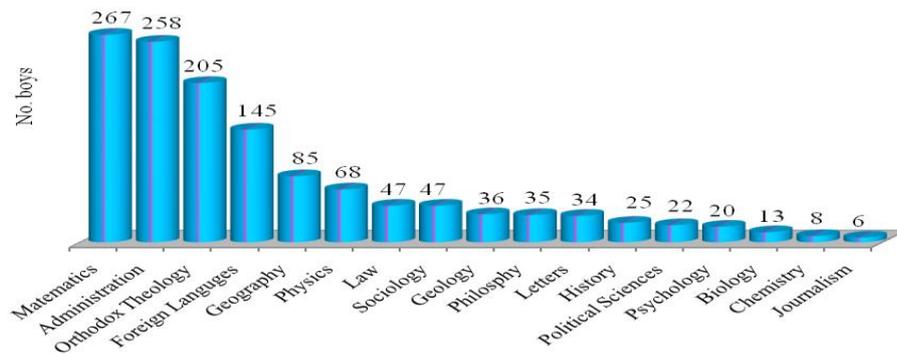


Fig. 5. Graphical representation of male students per faculty

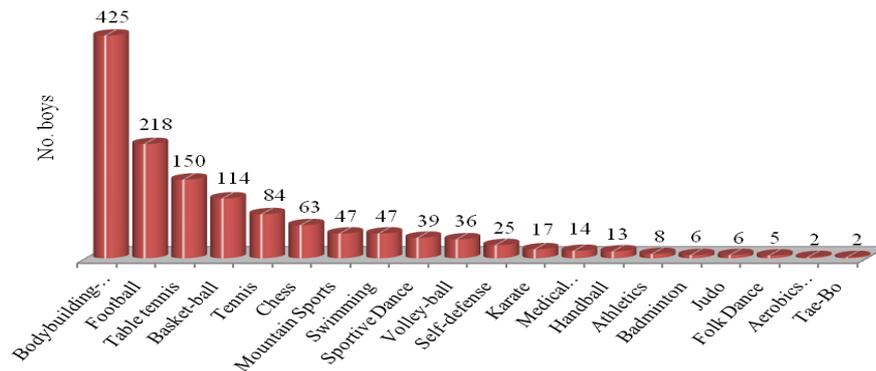


Fig. 6. Graphical representation of male students per sports

Table 5. Repartition of *Exact Sciences and Humanistic Sciences per sports*

Disciplines and sports branches	SCIENCES				TOTAL
	EXACT		HUMANISTIC		
Mountain Sports	51	8.9%	74	2.1%	125
Athletics	2	0.3%	13	0.4%	15
Self-defense	14	2.4%	159	4.4%	173
Badminton	24	4.2%	33	0.9%	57
Basketball	43	7.5%	110	3.1%	153
Bodybuilding-fitness	134	23.3%	1243	34.7%	1377
Sportive Dance	49	8.5%	264	7.4%	313
Folk Dance	9	1.6%	46	1.3%	55
Football	31	5.4%	196	5.5%	227
Judo	1	0.2%	12	0.3%	13
Handball	6	1.0%	52	1.5%	58
Karate	6	1.0%	54	1.5%	60
Aerobics Gymnastics	13	2.3%	489	13.7%	502
Medical Gymnastics	6	1.0%	119	3.3%	125
Swimming	35	6.1%	123	3.4%	158
Chess	34	5.9%	130	3.6%	164
Tae-Bo	7	1.2%	34	0.9%	41
Tennis	29	5.1%	167	4.7%	196
Table tennis	53	9.2%	157	4.4%	210
Volleyball	27	4.7%	106	3.0%	133
TOTAL	574	100%	3581	100%	4155

Table 6. *Square Chi test*

Settings	Values
Chi square (χ^2)	273.69
df	19
P	<0.0001

Square Chi significance test applied to the observed presence on the 2 groups about the practice of sports by **male** and **female students** show statistically significant differences between the 2 groups, semnification threshold $p < 0.001$, for $\chi^2 = 273.69$ și 19 liberty degrees. Percentage for Exact Sciences is predominant in the majority of sports, except for self-defense, bodybuilding, fitness, handball, karate, aerobics, medical gymnastics.

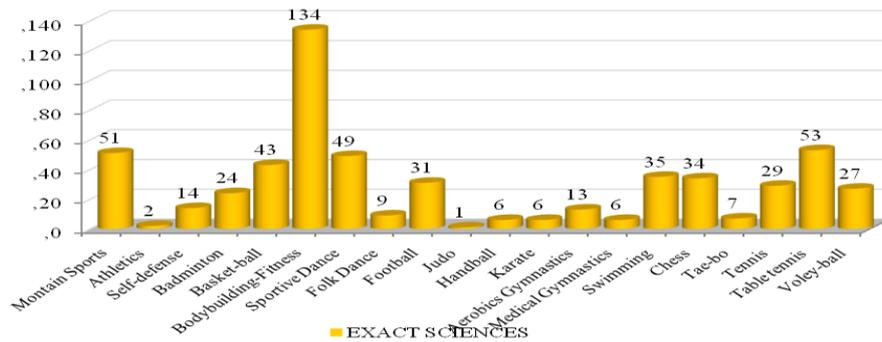


Fig. 7. Graphical representation of the absolute values

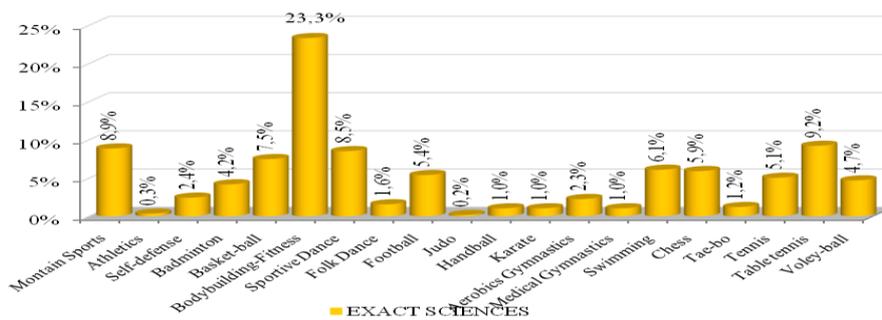


Fig. 8. Graphical representation of percentages

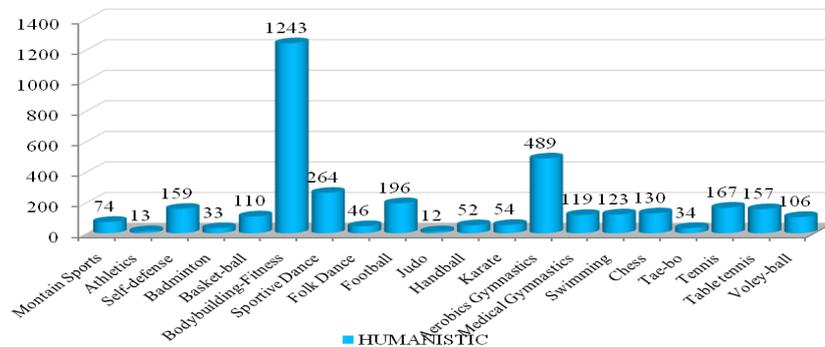


Fig. 9. Graphical representation of the absolute values

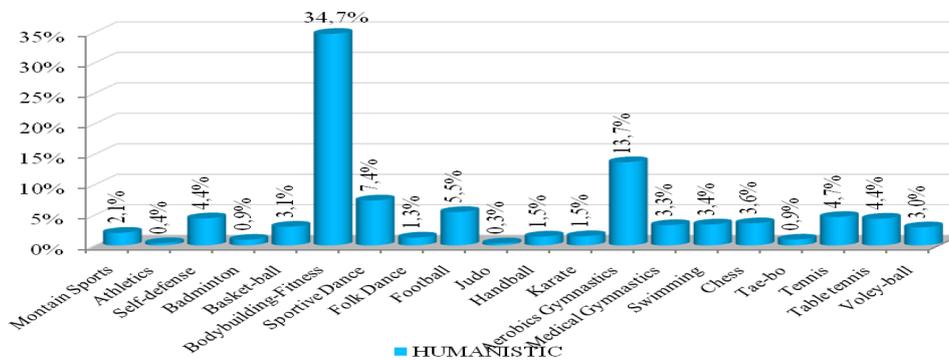


Fig. 10. Graphical representation of percentages

Discussions

Students subjected to the study are a relatively balanced and homogeneous mass, but reported to the obtained data, however, these aspects are being highlighted:

- generally, it is found that according to the distribution for the first 3 preferences, of the total of 4155 students, that girls, in number of 2834, chose mostly bodybuilding fitness - 33,59%, aerobics -17,64% and dance - 9,66%. Boys in number of 1321 chose mostly bodybuilding fitness - 32,17%, football - 16,50% and table tennis - 11,35 %.

- the absolute values and the percentages, obtained by the Exact Sciences on sports, show the following hierarchy of the first 3 preferences: bodybuilding-fitness - 23,3%, table tennis - 9,2% and mountain sports - 8,9%.

- the absolute values and the percentages, obtained by the Humanistic Sciences on sports, show the following hierarchy of the first 3 preferences: bodybuilding-fitness - 34%, aerobics - 13,7% and dance - 7,4%.

We can determine that in the first 3 preferences there is one single mutual denominator between the 2 groups and that is bodybuilding fitness.

According to the other 4 sports, we can say that the subjects from Exact Sciences chose precision and speed reaction sports (Tennis) and endurance and orientation (Mountain sports). Subjects from Humanistic Sciences chose motric coordination sports (Aerobics) and coordinately qualities and creation (Dance).

Conclusions

1. In general, students manifest a dominant preference for bodybuilding-fitness, aerobics and dance. 2. Percentage predominant at the majority of sports are Exact Sciences, with the exception of self-defence, handball, karate, medical gymnastics.

3. The positive motivation concerning the Physical Education and Sport courses is making its presence felt even if students do not have a sports profile, these proving from the big number of participants that they manifest an interest for physical activities started before university, which means they want to continue at the university.

4. As much as the perception of physical exercises values as positive stimulation for self is stronger, this thing will make young students understand that Physical Education and Sport regularly practiced, as part of educational system offered by University of Bucharest, with leisure activities, are 2 mechanisms that must be assembled, applied, evaluated and used for relaxation, recovery, relief, strengthening professional capacities, making it a way of living.

Bibliography

- COHEN, S., KAMARCK, T., MORMELSTEIN, R., (1983), *A global measure of perceived stress*. J Health Soc. Beh.; 24: pp. 385-396.
- COX, R.H., (2002), *Sport psychology: Concepts and applications*, Fifth edition, McGraw-Hill, New York
- CRĂCIUN, M., (2008), *Psihologia sportului*, Ed. Risoprint, Cluj – Napoca, pp. 15-70.
- DECI, E.L., RYAN R.M., (1985), *Intrinsic motivation and self-determination in human behavior*, New York: Plenum.
- DECI, E.L., VALLERAND R.J., PELLETIER L.G., RYAN R.M., (1991), *Motivation and education: the self-determination perspective*. Educ Psychol.; 26: 325-346.
- HARRINGTON, H. J., (2002), *Managementul total*, București, Ed. Teora, pp. 387-397.
- LI, F., HARMER, P., (1996), *Confirmatory factor analysis to the Group Environment Questionnaire with an intercollegiate sample*. Sport & Exercise Psychol.; 18: 49-63.
- VALLERAND, R.J., LOSIER, J.F., (1999), *An integrative analysis of intrinsic and extrinsic motivation in sport*. J Appl. Sport Psychol.; 11: pp. 142-169.

STRATEGIES USED TO IMPROVE THE EFFORT CAPACITY THROUGH FOLK DANCES, IN HIGHER EDUCATION

Strategii utilizate pentru îmbunătățirea capacității de efort prin dansuri populare, în învățământul superior

MIHAELA GANCIU^{1,a*}

¹Professor PhD, University of Bucharest, Romania

* mihaelaganciu26@yahoo.ro

Abstract

Introduction. Dancing, like all physical activities, develops important psychomotoric skills.

Methods. The ameliorative experiment was used. To assess effort capacity we used the Ruffier test.

Results. The experimental group achieved a clear improvement in effort capacity, moving from “satisfactory” to “good”; the control group also achieved an improvement in effort capacity, but remains within the “satisfactory” qualifier.

Conclusions. Based on the analysis of the evolution of the statistical indicators recorded after the experiment we come to the following conclusions: The Ruffier test is the most significant means used for developing effort capacity. Both groups have improved their result by a few percent, but the experimental group experienced a greater percentage of improvement which leads us to say that, by applying the principle that we applied in physical education lessons with the students, using folk dance as a means of improving effort capacity, a better adaptation of the body to medium stress was achieved.

Keywords: optimization, effort capacity, aerobics, students

Introduction

In the “Dictionary of nonverbal communication” (Givens B.D. 2002 quoted by Ganciu, M., 2012), dancing is defined as a “repetition of a series of rhythmic movements of the body or parts of the body (legs, arms, shoulders) in a musical tempo, with the foundation swinging gait alternative. “The specific motor content of dancing materializes through a diverse and complex range of movements. The great variety of techniques combine in a variety of expressive motor structures, dancing combinations and choreographic compositions.

Dancing, like all physical activities, develops important psychomotor qualities.

The systematic and organized practice of dancing influences the body and mind to develop in a harmonious, multi-lateral and healthy way

The effort capacity is represented by the ability of the active muscular system to release the energy needed to produce a high mechanical work for as long as possible and keep it for as long as possible.

About individualizing education in contemporary pedagogy dictionary – (Bârsănescu, rev., 1969), we read as follows: „individualizing education, adapting education to individual psycho-physical peculiarities of the child and the young and in a broader sense diversification of education, adaptation and pedagogical realities that go beyond the individual: sex, occupation, social background and national peculiarities.

In all educational fields (so including physical education) the training process is conducted in three major forms of organization: frontal, in groups and individually.

In the same category of examples, but for group learning, we must recall a famous MASTERY LEARNING SYSTEM (LMS) or learning strategy group (K. Block – 1970; Weytling – 1973; Terngruy – 1974) which proposed the following operations :

- I – Defining clear objectives and decomposing them into tasks;
- II – Analysis of educational resources;
- III – Organizing learning groups;
- IV – Objective focused strategies;

V – Continuous evaluation of resources, results.

VI – Correction of individual errors.

In the training strategies will be using:

* Frontal organization approach training in alternation with the passage into groups and individually. This shift from “general” to “particular” will determine and establish new relations between teacher and student.

* Intensive use of formative participatory methods for individuals and mini groups, heuristics, etc., able to solve the pedagogical and social valences.

Assessing the quality and efficiency of training. This operation will be performed with the use of functional tests.

The research hypothesis

If a system of individualized exercises is used, it ensures a higher level of fitness, as opposed to a directed and unified process for all subjects.

The practice of an individualized folk dance program by the students will lead to the development of a habit of practicing physical exercises and will improve their effort capacity.

Research Methods

- The experimental method. The experiment performed is an ameliorative type because it aims to increase the efficiency of the educational process.
- The method of measuring and testing was necessary for the objectification of all processes and other variables subject to scientific research.
- The statistical and mathematical method. The data from the tests and measurements have been analyzed and interpreted using this method.
- The graphical representation method allowed me to express the processed data and findings.

We also used graphs as a means of analyzing the research results.

The organization of the research

The research was conducted by the desire to optimize the educational process to a higher degree of efficiency and quality of folk dance lessons by applying a scientifically based system, in line with the spirit and curriculum requirements for individual work.

The research begins in October 2014 and ends in May 2015 so one academic year. Investigations were carried out on female students at the University of Bucharest. The sample under investigation included a total of 60 students, from the University of Bucharest, in the second year, subject to an organized system of participation in physical education as a compulsory subject and who participated in folk dance two hours a week.

Conducting the research

The experiment was conducted in three phases as follows:

- Phase I – 1 to 15 October 2014

Experiment subjects were selected based on surveys of self-esteem that provided us the data related to the purpose of this research.

- Phase II – October 15, 2014

Students took their first test of effort capacity.

Also in this stage we define the content and methodology of teaching folk dances from groups included in the survey.

Taking into account the age of the subjects the heart rate frequency was established (ZFCA).

- Phase III – May 25, 2015

The final effort capacity test takes place.

Remarks regarding the work arrangements for each group

Both the control group and the experimental one had worked on a common curriculum, to increase effort capacity on line of specific folk dance.

The duration of the lessons was the same in both groups.
 The content of the lessons was the same in both groups and included:

- * Complex harmonious physical development;
- * Folk dance structures from Muntenia;
- * Folk dance structures from Moldova;
- * Folk dance structures from Oltenia;
- * Folk dance structures from Ardeal.

What distinguished the two groups was the system of organization of lessons:

- * Frontal activity in the control group 85% and 15% individualized;
- * Individualized activity in frontal 80% and 20%.

In establishing the work technology it was kept in mind that the teaching of physical education in higher education is the last step of a long process of directed motor activity.

Another way to individualize the training used in the experimental group was the training method.

Monitoring effort intensity using heart rate throughout the lesson, the female students are required to write down all the training diary observations.

Evaluation

The battery of tests suggested that are directly related to the operational objectives.

These control tests we will carry out the evaluation with will provide concrete data on the quality and efficiency of the strategies applied.

For evaluating effort capacity we use a nonspecific test: predicting aerobic power (VO2 max) by the indirect method using the Ruffier test.

Research results

Being only a single test for measuring functional aerobic capacity (Ruffier test), we only have to comment on statistical values reported in Table. 14. In this matter we believe the following observations are relevant:

* Prior to the experiment both groups (experimental and control) accidentally have the average values relatively equal ($T_1 = 12.53$ and 12.75). Subsequently, the experimental group improves its ability of effort with a percentage of 25.36% compared to the control group which also improved by 11.76% respectively;

* For Group A: $t = 14$. This means that the differences between the averages are obviously significant and the null hypothesis is rejected;

* For group B: $t = 9.96$; the same interpretation as for Group A, but the difference between the averages, although there is not as great as for the experimental group.

Table 1. Findings of effort capacity – Experimental Group

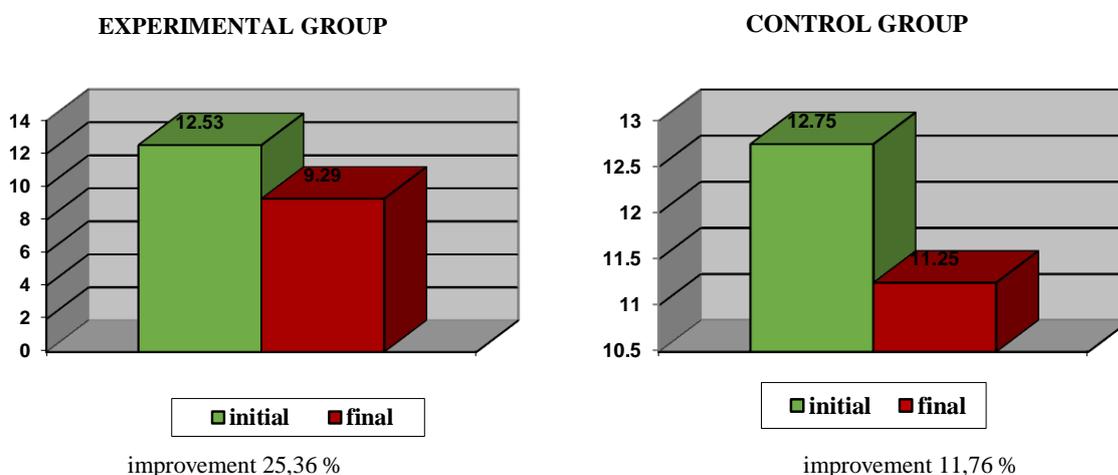
Scale	Grade	Average		Individual values			
		\bar{X}_1	\bar{X}_2	Initial	%	Final	%
Ruffier							
0-5 pct	VERY GOOD			0	-	1	3,3
5,1-10 pct	GOOD		9,25	7	23%	14	46,7
10,1-15	SUFFICIENTLY	12,53		18	60%	15	50%
over 15,1	WEAK			5	17%	0	-

Table 2. Findings of effort capacity – Control Group

Scale	Grade	Average		Individual values			
		\bar{X}_1	\bar{X}_2	Initial	%	Final	%
Ruffier							
0-5 pct	VERY GOOD			0	0	0	0
5,1-10 pct	GOOD			6	20%	10	33,3
10,1-15	SUFFICIENTLY	12,75	11,25	14	46,7	16	53,3
over 15,1	WEAK			10	33,3	4	13,3

Table 3. Ruffier Test

Group	Initial testing	Final testing	T dependent	Increase size
Experimental	12,53	9,29	-14,3	-25,36
Control	12,75	11,25	-9,96	-11,76



Conclusion

The systematic practice of folk dance by the students of University of Bucharest had beneficial effects on effort capacity or better adaptation to the physical demands of the body's aerobic nature. In fact Ruffier test provides objective indicators for assessing functional capacity cardiovascular and respiratory.

By analyzing the results we obtained (the values of both groups and individual values) with the scale of assessment Ruffier following this results we can create a very significant statistic for our research hypotheses.

The experimental group achieved a clear improvement in effort capacity, moving from “satisfactory” to “good”; the control group also achieved an improvement in effort capacity, but remains within the qualifier “satisfactory”.

We best observe the difference in improvements made by the two groups in terms of individual values.

The control group also changed their individual percentages on the Ruffier scale, but remains a deficit of 13.3% within the limits of capacity restraints effort.

The individualized training program (with specific objectives for each student based on deficiencies manifested) produced substantially greater effects on effort capacity.

Previous findings are strengthened by effort capacity parameters reported in the table. As we can see, both groups achieved improvements in effort capacity, but the experimental group with a higher percentage than the control group.

For both groups we reject the null hypothesis, but the difference between the averages is more significant for the experimental group.

References

- BOTA, A., (2006), *Exerciții fizice pentru viață activă*, Ed. Cartea Universitară, București.
- BÂRSĂNESCU, Ș., (1969), *Dicționar de pedagogie contemporană*, Ed. Enciclopedică Română, București.
- BUȘAN, A., (1971), *Specificul dansului popular românesc*, Ed. Academiei Republicii Socialiste România, București.
- COSTEA, C., (1990), *Aspecte ale diversității și unității în dansul popular românesc*, Revista de etnografie și folclor, Nr. 2, București.
- GANCIU, M., (2012), *Dansul popular specific zonelor etnografice*, Ed. Universității din București.
- HIDI, I., (2008), *Fitness – Bazele antrenamentului*, Ed. Bren, București.
- TUDOR, V., (2005), *Măsurare și evaluare în cultură fizică și sport*, Ed. Alpha, București.

STUDY REGARDING THE OPINIONS AND THE PERCEPTION OF THE STUDENTS FROM THE UNIVERSITY OF BUCHAREST ABOUT THEIR QUALITY OF LIFE

Studiu privind opiniile și percepția studenților Universității din București asupra calității vieții

MONICA GULAP¹,

¹University of Bucharest, Romania

* gulymony@yahoo.com

Abstract

Introduction. Lately there has been a development of the concerns for the quality of life, which is the priority area of interest for the specialists from many fields and also for ordinary people.

The term quality of life, both in the research studies and in the society covers a very broad range from the global, national, or community level, to the quality of life of the population groups and of the individual himself, which entitles us to believe that the objective of increasing the quality of life can be considered as a task “that never ends.”

The purpose of the paper: In this study we aimed at highlighting some opinions, attitudes and feelings of the young people on their perception of the quality of life and to identify positive influences of physical education activities performed within an organized framework at the Department of Physical Education of the University of Bucharest on certain indicators of the quality of life.

Hypothesis: The students from the University of Bucharest enrolled in the Physical Education courses value higher this type of activity, this being reflected in higher indicators of the quality of life.

Methods of research: bibliographical study, questionnaire-based method, statistical and mathematical method and graphical method.

Results: Through the *Questionnaire for the quality of life related to health* we used have been evaluated seven dimensions of the quality of life, aiming at these major areas: The physical well-being (5 items), The mental wellbeing (6 items), Moods and emotions (7 items), Self-perception (5 items), Autonomy (4 items), Social support of the colleagues/family (6 items), Academic Environment (6 items).

Conclusions: We can say that the relationship between quality of life in general and practicing physical exercises (in an organized framework or independent) is obvious, as in a population, the number of those who have such preoccupations is an indicator of a developed society.

Key words: quality of life, physical education, students

Introduction

Lately there has been a development of the concerns for the quality of life, which is the priority area of interest for the specialists from many fields and also for ordinary people.

The term quality of life, both in the research studies and in the society covers a very broad range from the global, national, or community level, to the quality of life of the population groups and of the individual himself, which entitles us to believe that the objective of increasing the quality of life can be considered as a task “that never ends.”

The quality of life does not have a universally accepted definition. A simple Google search of the term “quality of life” generates 632 000 results.

From the studies undertaken in Romania on the quality of life it seemed very comprehensive the definition offered by Mărginean and Balasa (2005), “the quality of life represents all the elements that relate to the physical, economic, social, cultural, political, health situation people are living in, the content and the nature of the activities they carry, the characteristics of the relationships and the social processes in which they participate, the goods and services they have access to, the consumption patterns adopted, the mode and lifestyle, the assessment of the circumstances and the results of the activities from the perspective that they satisfy people's expectations and the subjective states of satisfaction/dissatisfaction, happiness, frustration, etc.”

From our perspective, of specialists in Physical Education and Sport, the policies related to the quality of life must surely include prophylactic or therapeutic programs targeting health, optimization of the motor and professional capacity, the achievement and the maintenance of an appropriate physical condition, amplifying the level of self-confidence, facilitating the social relations, the social integration through specific means of the domain which induce a degree of satisfaction with life and with their own activity, determining satisfaction and fulfillment, leading to well-being and to a life of quality.

The purpose and the hypothesis of the research

In this study we aimed at highlighting some opinions, attitudes and feelings of the young people on their perception of the quality of life and to identify positive influences of physical education activities performed within an organized framework at the Department of Physical Education of the University of Bucharest on certain indicators of the quality of life.

In this paper we aim to check the following hypothesis:

- The students from the University of Bucharest enrolled in the Physical Education courses value higher this type of activity, this being reflected in higher indicators of the quality of life.

Methods

■ Method of the bibliographical study

Through this method we achieved a constant search of sources of information, as well as their selection, so that the methodical organization of investigating the phenomenon under research be complex, mobile and adapted to the investigated matters: general works, theses, magazines and sports publications, information obtained on the internet.

■ Observation method

In our scientific approach, the observation method consisted in the direct presence of the researcher in the educational activities, both outside the training process, by assisting at the classes, using records, and by actual participation in leading aerobics classes and table tennis.

■ Questionnaire-based method

This method offers the researcher explanations regarding the opinions, mentalities, realities, interests and the momentary situations of the investigated subjects. *The questionnaire for the quality of life related to health* we used, was developed following a model used in the project KIDSCREEN in Ireland (2001-2004) which aimed to assess the children's opinions, attitudes and feelings about their perceived health.

According to specialists, the representation of the subjective health status (perception of their own health) is a key element for monitoring the health of a population.

Using such a questionnaire can help monitor the subjective health and the well-being (physical, mental, emotional) of young people, to identify social factors and behavioral determinants of health and to identify subgroups with poor physical or mental health.

■ Statistical and mathematical method

■ Graphical method

The processed data and the results were expressed eloquently through graphical representations. Also, these were used as a means of analyzing the results of the research.

● *The investigation based on questionnaire* – regarding the quality of life, it gathered a number of 205 students from the University of Bucharest, of which 120 are enrolled and participate in the Physical Education classes: Table tennis, Aerobics, Basketball, Dancing, Soccer, and 85 students – which are not enrolled in the Physical Education classes. In what concerns the latter case, the administration of the questionnaires was made both online, and with the help of the students from ASLS and their colleagues which participate in our activities. Our endeavor was made between 24-28 March 2014 and it was an intermediate stage of a wide research which pointed the influence of the sports disciplines practiced in an organized framework in the Physical Education classes on the quality of life of the students from the University of Bucharest.

The analysis and the interpretation of the results

The questionnaire for quality of life related to health measures seven dimensions of health-related quality of life, covering the following major areas:

Physical well-being (5 items) - explores physical activity, energy and fitness.

Psychological well-being (6 items) - analyzes positive emotions, satisfaction with life.

Moods and emotions (7 items) - examines how young people manage depression, emotions and stressful situations.

Self-perception (5 items) - examines whether respondents perceive their physical appearance as positive or negative.

Autonomy (4 items) - concerns the subjects' possibility of having free time.

Social and colleague/ family support (6 items) - examines the nature of relations with other young people and their family members.

Academic environment (6 items) - aimed at young people's perception of cognitive skills, concentration and learning capacities, feelings about school.

The questionnaire for health-related quality of life evaluates the seven dimensions of the quality of life, each of them using 5-point Likert scale. For most dimensions of the questionnaire, the highest step (e.g. 5) receives the highest score indicating higher indices of the quality of life. The last part of the questionnaire asks the respondents to assess the quality of life from a global perspective, using a 7-step scale.

Dimension I – Physical Well-being

This dimension aimed at the physical activity of the investigated youth, regarding the energy and their physical condition. The level of physical activity is analyzed in relation to their ability to engage in sport or dynamic activities. It is also analyzed the extent to which a subject is unwell or complains of poor health.

The respondents (Group A - students enrolled in the course of physical education; group B - students who have not opted for the physical education) were asked to answer five questions about their physical well-being, as they perceived it in the past week of this investigation.

In what concerns the students participating in the course of physical education, a large proportion said they enjoy physical health over the average (14% - excellent and 61% good), while more than half of the volunteer students (not enrolled in physical education course) - 53.33% - felt that their energy level and physical condition is moderate, only 26.66% consider that their physical well-being may be qualified as 'good' and 'excellent' (Fig. 1).

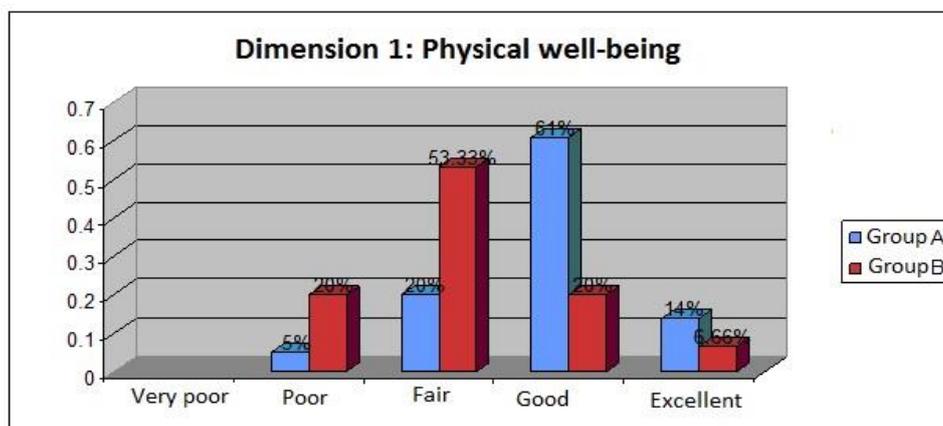


Fig. 1. The registered results regarding the physical well-being

Dimension II – Psychological well-being

This dimension includes an evaluation of the satisfaction with life, of the positive perceptions and feelings experienced by the subjects. The questions seek to identify how much these young people experience positive emotions such as happiness, joy, cheerfulness.

The participants in the survey were asked to answer six questions relating to their psychological well-being and the results registered through the analyze of this component showed that more than three quarters of students enrolled in the physical education course evaluate their mental health as a good one (49 %) and excellent (35%). On the other hand, among students from the control group, 33.33% believe that their life is pleasant and are

happy with what they live - at a good level, and 20% evaluated as excellent this component of quality of life (Fig . 2)

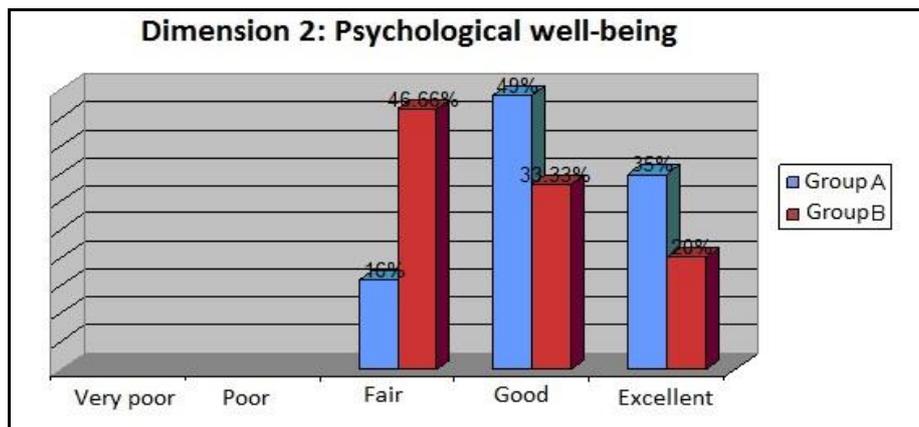


Fig. 2. The registered results regarding the psychological well being

Dimension III – Moods and Emotions

Within this component we are trying to establish how much the young participants in our study experience depressive moods, stress, feelings of loneliness, sadness, abandonment. The higher the score of this component is, the feelings listed are rare.

The subjects were asked to answer 7 questions, and the answers revealed that a large percentage of the students attending physical education classes (69%) achieved a good score, which means that the frequency of negative feelings is reduced. 66% of the subjects from the control group received an average score, which indicates that the loneliness, sadness, depression were seen “fairly often” by these young (Fig. 3).

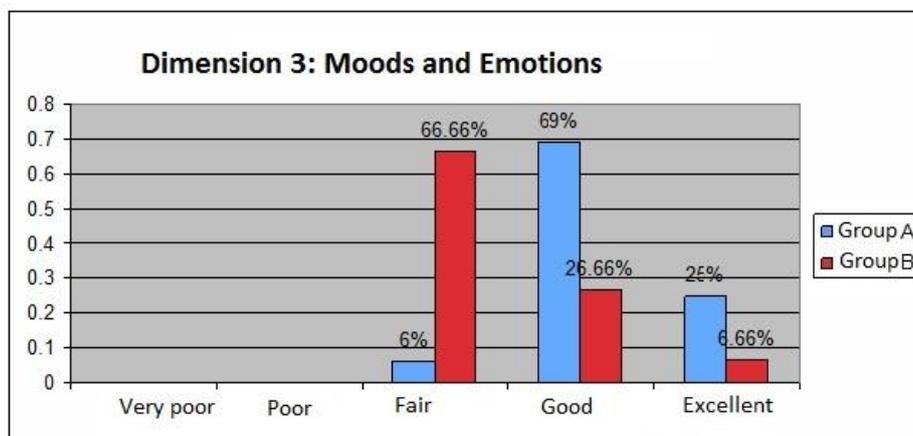


Fig. 3. The registered results regarding The Moods and Emotions

As regards the distribution by gender in both groups the share of the negative feelings is higher among girls.

Dimension IV – Self perception

Through this component it is trying to evaluate the young people's perception of themselves, the manner in which the external appearance is perceived positively or negatively. Also, the body image is explored by questions concerning satisfaction with the way they look and their clothes, with the accessories and the confidence in them selves. The results will reflect the value that individuals attribute to themselves and also the positive perception of value that others attach to them.

The respondents were asked to answer five questions about their self perception, highlighting that more than half (57%) of the students participating in the activities of physical education have

positive images about themselves. Among the volunteer students and on this project a large amount (53%) are satisfied with the way they look or their clothes, while 33.33% have achieved an average score, which indicates the presence of often feelings of concern or dissatisfaction regarding the body image (Fig. 4).

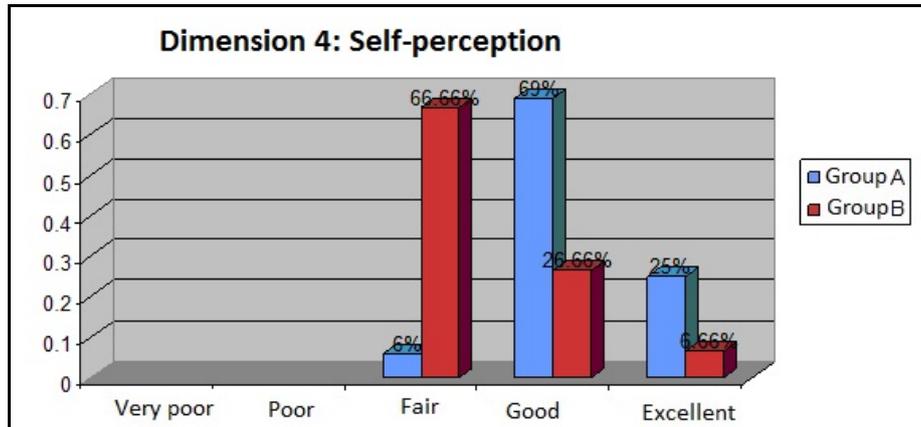


Fig. 4. The registered results regarding Self perception

The gender distribution of the responses in both groups showed a higher percentage of the boys excited about their way of being, and on the other hand, a higher number of the girls who “would change something about their body.”

Dimension V – Autonomy

This dimension seeks to highlight the capacity of the young people to create and manage their leisure and social time budget, analyzing their level of independence / autonomy which is a very important aspect in developing an individual identity. It also aims to measure the extent to which subjects have the freedom of choice, if they are able to build their own lives, to make decisions about their daily activities. In equal measure through this component is tested whether young people are given sufficient opportunities to participate in social activities, especially in leisure activities.

Our survey participants were asked to answer four questions about their social time. A large number of the respondents (65% - of students enrolled in the physical education course and 40% of young people in the control group) achieved a good score for this component of quality of life, meaning that they consider that “very often” have time for them to meet up with friends. We can not notice that among students in the second category, 20% believe they did not have time (“rarely” or “never”) to make things in their spare time which bring them satisfaction and pleasure (Fig. 5).

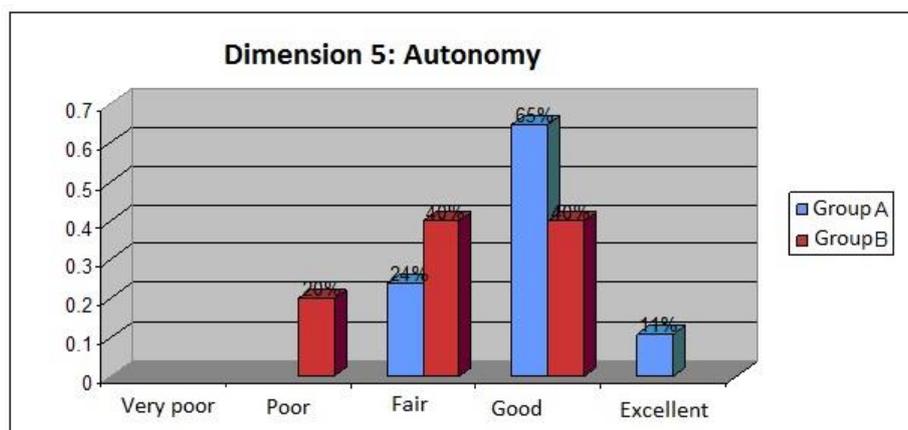


Fig. 5. The registered results regarding Autonomy

Regarding the distribution by gender, there is a higher percentage of boys who have obtained a good score and “great” for this evaluated dimension.

Dimension VI – Social and colleagues/family support

This evaluated dimension aims at analyzing the type of relationship of young people with their peers of the same age and also the social relationships with friends and colleagues, the quality of interaction, the extent to which the subjects feel accepted and supported by colleagues, their ability to build and maintain friendships. At the same time, it aims to measure the extent to which the youth values positively the group relations, the relationships and the family atmosphere.

The respondents were asked to answer six questions about the social support, the nature of relationships with their colleagues/friends and the responses revealed a good score for 70% of students participating in sports activities, while a large number of students in the control group (53.33%) registered an average score. In the latter category there are many subjects who consider that they have an excellent relationship with their family and/or colleagues who they can rely on, that they feel good in their entourage - 26, 66% (Fig. 6).

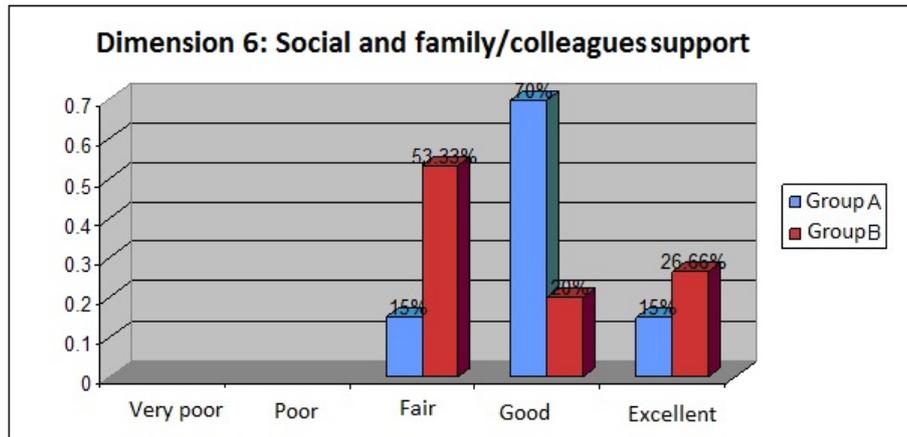


Fig. 6. The registered results regarding Social and colleagues/family support

Dimension VII – Academic Environment

Through this dimension we try to assess the feelings of young people about academia (school), their perception on their cognitive, learning abilities, the concentration on issues related to study, on the satisfaction related to their academic performance. We also analyzed the relationships with teachers, the extent to which teachers are perceived as empathetic and concerned with youth issues.

The respondents answered six questions concerning the academic environment, and we found, more than for any other component, a high frequency of negative responses. Thus, there is a low perception of the academic environment, as one hardly pleasant for the youth; this aspect is evidenced by the large number of students enrolled in the course of physical education (61%) who achieved an average score for this component, in the control group being found a higher percentage of students who felt comfortable at school, who were satisfied with the performance of their teachers and with their academic results (40%) (Fig. 7).

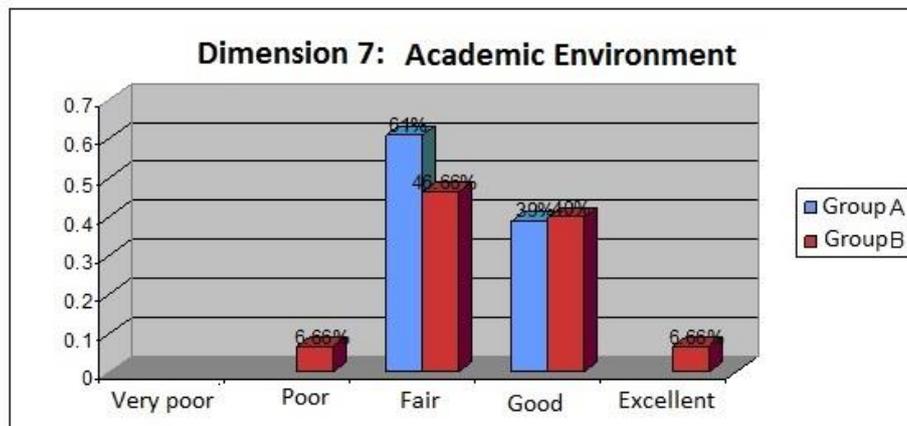


Fig. 7. The registered results regarding Academic Environment

VIII. Quality of life – the global perspective

In the last part of the questionnaire, subjects were asked to answer 14 questions focused on important aspects of the quality of life and to assign 5 scores: “very poor”, “poor”, “moderate”, “good” and “excellent”.

The responses showed percentages close in value among the students participating in sports activities organized by our department, who evaluated their overall quality of life as “moderate” and “good” (30.83% and 38.34% respectively), and in the group of students not enrolled in our courses, a greater number (46.66%) perceived their quality of life as “moderate” (Fig. 8).

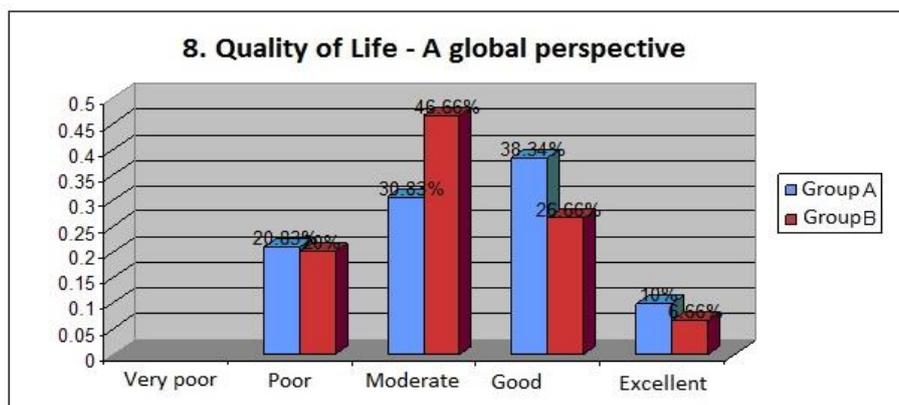


Fig. 8. The global perspective on the Quality of life

It should be noted that, in both categories of subjects participating in our study, there are young people who believe that, from a global perspective, their quality of life can receive high marks, but, in contrast, there are also dissatisfied students, assigning a “poor” score to this approach.

Conclusions

We can say that there is an obvious relationship between quality of life in general and practicing physical exercises (in an organized or independent way), as in a population the increased number of those who have such preoccupations is an indicator of a developed society.

Comparing the results obtained for each dimension of the quality of life contained in the questionnaire applied to the two groups shows that, in general, students among those enrolled in the physical education course have higher scores than their peers in group B (volunteer students who are not enrolled in the optional course of physical education), indicating a better quality of life. Interestingly, from all components of the questionnaire, the most negative attitudes (valid for both groups) are towards the “Academic Environment”. This must draw an alarm signal to all the factors involved.

Promotion of the positive effects of participation in activities during the physical education classes at the University of Bucharest - highlighted by the results of our study, could support the reconsideration the position of the decision makers regarding the status of this discipline, and they can become our “allies” in proposing an effective and relatively inexpensive solutions for positively influencing the students’ indicators of the quality of life.

Bibliography

- BARNA, C., (2006), *Educația sportivă și rolul ei în formarea tineretului din România*, teză de doctorat, Facultatea de Educație Fizică, Universitatea din Pitești.
- BĂLAȘA, A., (2000), *Diagnoza calității vieții populației vârstnice*, în revista Calitatea vieții, XII, nr. 1-4.
- BĂLAȘA, A., (2007), *Sănătatea, componentă esențială a calității vieții*, Revista Calității Vieții, XVIII, nr. 1-2.
- BĂTLAN, I., (2003), *Tratat de filosofie generală*, Editura Miron, București.

- BÂTLAN, I., (2006), *Calitatea vieții umane și activitatea sportivă*, Revista Discobolul, nr. 5, București.
- BOTA, A., (2006), *Exerciții fizice pentru o viață activă. Activități motrice de timp liber*, Ed. Cartea Universitară, București.
- BRETTSCHNEIDER, W.D., (2004), *Study on young people's lifestyle and sedentariness and the role of sport in the context of education and as a mean of restoring the balance*, Final report, Paderborn.
- CHELCEA, S., (2001), *Metodologia cercetării sociologice*, Ed. Economică, București.
- Colectiv D.E.F.S., (2014), *Curs de Educație Fizică pentru studenții Universității din București*, Ed. Universității din București, București.
- COMAN, S., (2008), *Minte sănătoasă în corp sănătos*, Ed. Porțile Orientului, Iași.

PREVENTION AND CORRECTION OF THE MISTAKES IN THE KARATE TECHNIQUES WITHIN THE PHYSICAL EDUCATION CLASSES AT THE UNIVERSITY OF BUCHAREST

Prevenirea și corectarea greșelilor tehnicilor de karate din cadrul lecțiilor de educație fizică la Universitatea din București

MARIUS LESTARU ¹,

¹*University of Bucharest, Romania*

*lestaru.marius@yahoo.com

Abstract

Premises. During the physical education lessons with specific Karate-do from the University of Bucharest, the process of acquiring motor skills is sometimes performed with mistakes. But these mistakes are neither compulsory, nor irremovable. The mistakes are mainly to be found during the beginning period of acquiring motor skills. It is necessary to know the measures that can prevent the out coming of the mistakes in the didactic process with students and if, by chance, they have occurred, there must be measures to correct them.

Objectives. The direction of research is orientated towards the finding of some typical causes in making execution mistakes and recommendations to avoid and correct them.

Methods. The methods used in this research are orientated towards the finding of the causes that lead to mistakes, the recommendations regarding the students' independent practice to prevent them, the understanding from the teacher of the type of the observed mistakes and their degree of importance.

Conclusions. The results of preventing and correcting the mistakes of execution in Karate-do acquired by the teacher and his students can diminish significantly the period of learning new motor skills, the cultivation of self-esteem and motivation regarding the Karate-do values.

Keywords: mistakes, prevention, correction, karate-do

Introduction

The majority of mistakes found during the Karate-do lessons at the students from the University of Bucharest start from the lacking of a thoroughly training in basic techniques and from a superficial attention in the class. The Karate student has always to be focused towards his teacher, toward himself and towards his adversary and most of all to really want these things.

Objectives:

Some typical causes of mistakes:

1. *The misunderstanding of the motor skill purpose.*

In the specific exercise, the explanations are not truly understood or the subject can't distinguish with clarity what is really important and what is of secondary importance.

2. *The imperfection of following the plan of the motor skill which is his objective.*

The student thinks about a mental plan to follow, but his efforts are not in the right direction.

3. *The link between muscular sensations and a mental plan to perform the motric action is misunderstood.*

This is an important cause of mistakes and very difficult to eliminate. By a mental representation of the motric skills, the subject can not realize the specific muscular sensations and without them, any other Karate techniques will be incomplete or unilateral. It is very important that the student must leave a model of muscular sensation to which he must compare himself constantly and feedback of his correct executions. The specific Karate muscular sensations must be built on natural body movement, maybe even through easy-to-remember to repeat and knowable examples. For

example, in kicking technique *mae geri chudan*, or for *yoko uraken uchi*, the sensation of snapping is what the student must look for.

4. *The insufficient physical basic training.*

This is one of the most common causes of motor mistakes. An obvious example is lacking elasticity and mobility which hampers the motor movement. What can be more pathetic than to look at the ceiling and wait for a high level kick and to perform a kick not higher than the knee level?

5. *Unbalanced development in motor qualities.*

For example, too much development of force over other motor qualities lead to mistakes in coordination.

6. *Distrust in his own forces, lack of decision or fear of discomfort.*

These causes for mistakes and failures are often present in initial learning, due to the lack of the previous similar experiences. Later on, in the case of some complex, difficult exercises, risky ones.

7. *Motor skills interference.*

Motoric actions during the beginning stages of learning are sometimes interfered with already developed motor skills, this in particular at early stages of learning and in the case of not understanding the principle of durability.

In independent practice we recommend the following measures for mistakes prevention:

- To fully understand the correct meaning of the general purpose of the exercise.

Attention, make a clear distinction between purpose and difficulties which stand in the way of solving the specific problems.

- The material of study should be accessible, not too difficult to understand, but not too easy either. If it is too difficult, mistakes will be committed or it will always exist an uncertainty during technical skills and if the exercise is too easy, it will exist the risk of sloppy form.

- To insist permanently for the proper form when practice insisting towards an attitude against any mistakes.

This purpose is very valuable for society in which we live employing the relationship between martial arts and daily life. In Japanese culture there exist a notion “*Kaizen*”, which literary means “continuous improvement”. In short words, the Japanese are driven by a strong will to continue improvement of the form and quality of the product upon which they work. In strong contrast with this attitude, many people from our society especially in the last decades have been accustomed to accept a minimal standard for the products or services which they make. With other words, there is a strong evidence in not trying to achieving maximal potential and this can be easily seen around us.

- To respect the necessary bond between the speed of movements and the proper execution. In the case of exercise where the target is the precise execution of techniques in which the speed is subordinated, the correct execution of movements will be followed, and later, during learning process, the speed of movement can be raised for a proper execution.

- If we come across a false movement we do not stop the training session. On the contrary, the subject will keep practice and struggle for correct form, otherwise a wrong and incorrect representation in the future will lead to another mistakes.

The exercises which are not thoroughly practiced will be repeated always, trying to find the correct form. There is not a short-cut in this matter. There is no substitute for a proper repetition. This is the most important and valuable thing to remember.

Jiyu Kumite represents a free fight exercise and of course represents a much pleasant form of movement instead of series of long repetitions in basic technique. Still, the ability of performing with efficiency arm or leg techniques cannot result only in the simple practice of the free fight exercises but it will be the result of thousands of repetitions in basic training. For example, it will be impossible to take advantage in the opening stance of an adversary if your ability to adjust the distance and moving with high speed haven't been practiced enough. This thing has to be learnt during continuous practice in basic techniques of movements which will allow the subject to develop his potential of explosive movements, forward if he attacks or backwards when he is in defense.

The possibility of correcting the mistakes, of transforming the dynamic stereotype of motor skills is explained by the mobility of central nervous system. All depends of the stability degree of the motor skills, more precise – depending how deep are the roots of motoric mistakes in question and the bond between the wrong movement with the whole action.

In correcting the motric mistakes it is very important the personal understanding of the wrong movements for the students.

Comparing the movements is a great help in understanding the personal mistakes. It is the same as understanding the differences and resemblances between objects, it is the same in physical exercise when you compare the muscular sensation – for example, (when the arm is extended – the arm is flexed, where the muscles are tensed – relaxed, when you have a fast rhythm – slow rhythm, maximal speed – sub maximal speed), allowed the proper appreciation of personal movements. Comparing the movements and actions, the student will understand more easily his mistakes and it will help him to correct them.

The main rule to be followed in correction of the techniques is: it is important to understand why the mistake has been committed and to take care for the causes and not for the consequences.

- For example, a mistake in the use of insufficient rotation of the hips in the arm technique *gyaku zuki* comes from keeping the foot of the back leg oriented towards 90 degree instead of 45 degree – this resulting in biomechanical impossibility to proper use the hips in this situation.
- Another common mistake is keeping the feet in *zenkutsu dachi* (karate stance) on the same line (same as walking on a wire). This thing constantly affects the balance. Keeping the feet in the right position and taking care how wide is the posture, this mistake will be eliminated.

Methods

Observing and understanding the causes of the mistake are not the same thing. The failure is usually obvious, but it is difficult to understand what led to the failure. Correcting the mistake do not mean just to observe it, but in repeating the exercise and in finding the best ways for correcting. This thing is neither easy, nor simple.

In finding the mistakes, the student must understand first of all if the general plan of motor skills is correct. Then he can go further to details and analysis. The student must understand the premises of the right execution; the elements of a technique (initial position, intermediate and the final position).

For the beginning, the easiest thing is to start correcting the body postures. It has to be very clear understood the position of the feet, shoulders, trunk and the head.

- As an example, in the execution of the leg technique *mae geri* the foot of the front leg in the position *zenkutsu dachi* if it is not oriented forward and it is orientated sideways then the hip wick will correspond to the kicking leg it will be too much pushed forward, the balance will be lost and the efficient action of hips will be much diminished, the kicking techniques will be very weak and inefficient. The starting position is very important to be corrected.
- Most mistakes in fighting come from a false position in *kamae* (karate stance). Same degree of attention must be focused towards any proper motric action.
- In the case of jumping kicks or jumping in *kata* – fighting with imaginary adversary (*Heian Godan, Empi, Kanku Sho, Unsu, Meikyo*) the incorrect preparation of jumping leads to mistakes in the phase of pushing against the floor.

The mistakes must be eliminated according to their degree of importance. The importance of mistakes must be deep understood because not always the mistakes wick are seen easily are also the most important.

It is very important to work out the basic mistakes; while correcting them, the students usually correct the secondary mistakes wick in the majority of cases depend of the principal mistakes.

One has to keep in mind the fact that the main cause of the mistake wick appears in the final effort do not depend on the final movement, but on the anterior parts of the whole movement.

- For example, in the *mae geri* technique the lack of efficiency in the final part of the movement can result from not rising high enough the knee of the attacking leg or putting in the right position the foot.

The most obvious mistakes that trouble the motor skills have to be eliminated at once. We cannot stop upon the secondary mistakes from the beginning but we have to take care that these we will not become major or usual mistakes.

The failure in correction the mistakes can be explained sometimes by the fact that the students do not know what to begin with or they have too many problems to solve simultaneously. Correcting the mistakes step by step allow the students to concentrate upon them one after another and thus their action to be more efficient.

Conclusions

By continuous repetitions, correcting the mistakes will reach its purpose if the action witch is to be corrected is executed properly without a partner in the beginning and then submerged in the initial context (*Kata, Kihon*) and reaching the exercise with partner.

Sometimes, the corrected mistakes come back especially when the student practices new motor skills in difficult situations. During correcting the mistakes, the fixed nervous connections are not destroyed, instead they diminish and die out and because of this the mistakes can reappear. When this happens again, the student must go back at the basic exercises whose objective is to correct the specific motor skill.

The auto correction is not easy. During training, the student must take care of himself, look inside of him as long as possible, have faith in the one who leads the lesson and in particular it is a good idea to use a mirror for studying his proper movements taking care of observation above.. For the students who have mirrors in the training halls, the recommendation is to take care and not to fall in the trap of the mirror. This means to look always in it.

References

- DELIU D., (2008), *Metodica disciplinelor sportive de combat*. Ed. Bren, Bucuresti.
DRAGNEA A., (2002), *Teodorescu MS. Teoria sportului*. Ed. FEST, București.
GROENEWOLD M., (2006), *Karate the Japanese Way*. Trafford Publishing, London.
JINGA G., (2007), *Didactica educației fizice în învățământul superior*. Ed. ASE, București.
LEȘTARU M., (2010), *Karate-do manual pentru studenți*. Ed. Universității din București, București.
MASATAKA M., (2010), *Fundamentals of Karate-do*. Dojo-Kun Publishing, Tokyo.

SELF-DEFENSE MODULES FOR STUDENTS

Module în autoapărare pentru studenți

MIHAI CRISTIAN NEGOESCU

State University of Physical Education and Sport of the Republic of Moldova, Chișinău

email : negoescumihaicristian@gmail.com

Abstract

In order to prepare current students for potentially risky work environments, universities have introduced classes of self-defense in their curricula. Apart from releasing stress and tension, students learn to prevent and face various violent situations occurring in their future work environments. This presentation tackles the main modules of self-defense, their content and study methodology.

Key words: self-defense, module, students, inter-disciplinary domain.

Introduction: In nowadays crazy life, all sorts of undesirable events turn violent. This is why more and more universities have included self-defense among other subjects in their curricula. Various socio-professional categories such as doctors, lawyers, journalists, teachers, etc. benefit from learning self-defense techniques. Until now there has not been a well-designed curriculum to tackle the self-defense issues in an appropriate and complete approach. Various specialists know their piece of the puzzle, but novelties complete this inter disciplinary domain. A practical advantage of the practice of self-defense is that you do not need to wear a Kimono, Ifu, Dobok, or other specific traditional costume of martial arts. For self-defense you usually need sportswear.

Current status in professional literature : The current interdisciplinary level of self-defense reflected in professional literature is ambiguous and incomplete. Current literature treats this interdisciplinary issue of self-defense in a briefly and incomplete manner, this is why this paper about self-defense, as a modular system, on several chapters is necessary. The self-defense domain is broad, and it is usually tailored on the various teaching needs.

In this study we highlighted the needs of students in civil and non-profile universities, other than Physical Education and Sports - specialization martial arts, or combat sports, their needs to know how to defend themselves, and successfully cope to critical situations and assault. There is a great diversity of current students coming from different backgrounds and having specific problems to get into the proper mindset and execute the self-defense techniques under duress; teachers must tailor-made self-defense classes on these students, who may have a lack of movement skills, or sport background, and even deficiencies in their anatomical and physiological development, so making self-defense attractive would benefit them the most.

Main part : Due to its broad area of information, and practical knowledge we recommend self-defense study to be carried out during the entire university cycle: bachelor's and master degree, doctorate and later to be able to continue in different martial arts and self-defense clubs. For these above mentioned reasons we consider necessary to study self-defense on the following modules – sections highlighted below.

Module 1: Besides dealing both with the theoretical and methodological training on physical and mental self-defense, and basic knowledge of anatomy, physiology, and nutrition with specific applications in self-defense, this theoretical chapter aims at attracting students to learn self-defense.

Next steps in our presentation of the art of self-defense we will particularly highlight the gaps in pragmatic and eclectic approach to self-defense for students to understand the issues addressed more quickly and efficiently.

Module 2: It is composed of foundation of the training drill and sportive training (general and specific physical training); this way, students will learn how to prepare their body for specific combat actions. We must remember that for many students it is first opportunity to practice physical education and sport in an organized manner, so for them, the length and number of repetitions of this module will be higher. This module is equivalent to second and the third link in the lesson of physical education and sports, namely preparing the body for effort and selectively influencing the musculoskeletal system. For easy learning we will work in line in front of the mirror.

Module 3: It consists of “Kihon” in Karate or “Tandoku Renshu” in Judo exercises (translation shadow boxing) and Qi Qong exercises. Specific movements will study basic techniques of striking with arms and legs, blockages, and linked techniques and procedures. The coach-teacher will take care of the practical significant details of movements so that the students can easily and quickly assimilate the newly received information. To ensure smooth running of the lesson and to avoid injuries, we will work in the gym line each repetition is executed on verbal command. The purpose of this module is to strengthen the body through specific exercises while increasing elasticity, flexibility, mobility and speed (of reaction, execution and repetition).



Photo 1 Students of Bucharest University during “kihon” exercises
Source: Bucharest University the Physical Education and Sport
Department: <http://www.defs.ro/>

Module 4: It focuses on the basic scientific principles of biomechanics and its practical application in Aikido, Ju Jitsu, Karate, Taekwondo, Wu Shu, and other martial arts to escape and counter attack different types of hand grips. This module has specific implementations for women in various situations. See in this paper [3] where these issues are exemplified. This module also prepares subsequent modules through knowledge and skills transfer.

Module 5: It focuses on attack and defense techniques at basic level, with arms and legs at a long medium or low distance. A key study is the counter attack with the same kind of attack – actually the same technique because the first counter attack is usually the attack itself, because under stress a copying behavior appears due aggressor-victim empathy (same areas of the brain become activated both at the aggressor and the victim) [5].

Special attention will be given to enhanced techniques of Boxing and Taekwondo that are particularly violent. We mention that generally the struggle distance is small because the fighting space is small for example stairs, elevator, or corridor, etc. The students who competed at various sports coming from martial arts will you have difficulty coping with self-defense drills because they favor like a large fighting space where the fight can take place freely.

This module completes Module 3 and Module 4 with linking techniques of attack and defense with arms and legs in various combat situations and at different distances (small, medium and large). A good point to start is Professor Ionescu Mihai’s book that is found in literature [4]. In this way students can also study acrobatic basic elements of attack and defense like “flying punch”, “jumping kicks” and other).

Module 6: Studying judo and wrestling techniques applied in self-defense in a particular way and in specific conditions much different from the sportive alternatives from competitions which are bound to compel with specific on changing regulations see professor Frazzei F. [1] and Enache I. [2] books, having detailed descriptions of these tactical and technical features. We will pay more attention specifically on the execution techniques when in summer or winter. In summer clothing grips cannot be done because they are thinner and lighter and break quickly. Generally this module will make students stronger, more resilient and powerful.



Photo 2. Judo various techniques that can be applied in self-defense
Source www.wikipedia.org

Module 7: The students will be studying applied psychology in self-defense to divert the aggressor’s mind and attention; these techniques are called “Mind Bending Techniques” [5]. The students will learn the techniques of communication, persuasion, neuro - linguistic programming, emotional balance and self-control. All these are psychological techniques of attack or defense depending on how they are used. This module will continuously tackle new knowledge throughout this study, module 7 being a natural follow-up to applied psychology learned in module 1. This study will be done both individually and in groups but especially by correlating information from the other modules.

Module 8: It studies self-defense techniques in disadvantageous positions and places. The students will study the techniques of Ju Jitsu Ne Waza on the ground, toward the ground and at ground level. It will start with the basic ground techniques to provide practical fundamentals of self-defense skills building. Finally to basic the Ju Jitsu waza techniques various objects and things difficult to handle will be added and also performing the techniques on river or lake banks. Advanced students (minimum 1 Dan - black belt) can prepare with Ju Jitsu Ne Waza techniques for different situations in difficult locations stairs, rough terrain, etc. Students will learn to handle any situation that may arise within the practice of self-defense. A good point to start is Professor Frazzei F. book that is found in literature [1].

Module 9: It is designed to study the free combat techniques not using weapons, fighting one aggressor (training partner) in various combat situations. It will begin with prearranged fight to strengthen movement abilities and skills in self-defense. We recommend the application of various combat sports such as boxing, Wu Shu, Wrestling, Judo, Karate, Taekwondo, Pangration, etc. Thousands of repetitions of techniques are required to master them and to become second nature in

order to execute them properly under real fight duress. We will focus on execution techniques in sensation [5]. To avoid unpleasant events techniques should be studied and learned on both sides, the left if clumsy requiring additional repetitions compared to the right side.



Photo 3. Study with partner of various fighting techniques
Source www.wushu.ro

Module 10: Starting this module we address only to advanced practitioners (minimum 1 Dan - black belt in various martial arts) in the art of self-defense because we introduce risky and dangerous situations that beginners cannot cope with. This is also a basic module for military students. Module 10 introduces self-defense against assault with household objects, improvised weapons, agricultural tools and sapper. This module requires larger practice space maybe outdoors. Athletes who have only practiced martial arts as sport only in competition will be shocked but delighted with these techniques that introduce a lot of new information, technical skills and tactical knowledge. For example, an athlete practicing boxing is not familiar with using a club as a weapon, in a real fighting situation he can get a mental blockage and get run down [5]. This module focuses on using various objects as weapons in self-defense.

Module 11: How to defend against a knife is particularly valuable because the object in question can be easily found almost everywhere, and during time produces the largest number of victims. The teacher will start knife techniques in combat, knife types existing, the number of sharp edges of the knife, how to wear it undercover, and how to handle it. The student will pay attention to the type of knife called Indonesian Karambit (its blade is curved like a claw, and has a ring at the end). The student should pay more attention to the psychological impact of being assaulted with a knife appearing suddenly, and to how it feels when touching the skin. As teaching material, a strip a piece of aluminum with round shapes can be used. It is important that students be able to disarm the aggressor and make a efficient counter attack. The key point is that students learn disarm the aggressor. The military students can learn martial counter attacks using the weapon they have just captured. For safety disarmament, the students must act quickly, as soon as the knife is produced, fighting to get control over the aggressor before the later attacks; reaction time that can be fatal.

Module 12: Module 12 continues module 11 the future specialists in martial arts but also future military, currently students will learn through the transfer of abilities and motor skills how to defend against a long stick or fend off sword attacks. Students must remember that the blade does not hurt them unless their body is parallel to it. Furthermore, the closer you position yourself toward the aggressor, the more he/she loses use of the sword because it requires long range combat. In addition it requires more time for handling and is visible when carrying it so it can be counterattacked ahead.

Module 13: It is about protecting people in dire situations, of fight or assault. In real life we can bump into violent encounters and we must do something to save other people. The student will learn how to interfere with the aggressor and victim. The victim is possible to be of his own family or a friend! This module is the best module from future bodyguards and police officers. All martial arts master teach they student this type of techniques.

Module 14: In this module, the student will learn the first aid (from him and others, in various conditions) physiotherapy, osteopathy, chiropractic and therapeutic massage, rehabilitation and post

traumatic and post effort rehabilitation. First aid is vital to prevent further medical complications that can develop into serious problems. Many students come to university with some knowledge about fist aid, and they find it easy to systematically and effectively advance in the practice. Beginners are recommended to cover this module, to not lose interest in self-defense. [5].

Module 15: It includes basic elements of self-defense in case of multiple violent attacks, which overpower the victim. This module is important for success in situations of social and street unrest. Students will learn how to act in situations of confusion, exactly determining the goals, methods and processes from occurring opportunities to set up and defeat opponents; a rapid prioritization and means of self-defense leads to an easy victory.

Module 16: Recent social events in Western Europe require students to know basic elements of self-defense against firearms. This chapter is particularly large and advanced being studied in depth only by military students. The civilian students will learn only how to react without direct actions that may arouse suspicions. Teachers will teach them to stay safe and away, to adopt non challenging attitudes and behaviors, and how to successfully manage the crisis. Students who hold 1 Dan - black belt can be informed about the basics of disarming the aggressor of firearms.

Module 17: It is the most attractive for students because it is done exclusively in nature, and teaches them how to handle camps, trips and boot camps. Students will learn how to set a camp, how to put the tent, how to procure wood and cook in nature, how to get directions to keep moving day and night, how to explore the caves as tourists and much more. Module 17 may also be conducted at the end of week as well as in school holidays. Wildlife is highly challenging and in last minute trips through travel apps many people can face dire situations. This module can shape the future tour and mountain guides and gets inspiration from the work of scout teams.

Module 18: The final module, module 18, is the individually and collective study of various combat systems, with the aim of finding new techniques, procedures, alternative strategies to fight in self-defense. This module focuses on the discovery, personal interpretation and implementation of individual acquired knowledge because everyone has a specific way to express and enforce knowledge. This individual specific learning is due to anthropological and physiological parameters of the person in time of crisis [5]. We believe this module to represent a graduation for a “license” where personal interpretation and implementation of acquired knowledge plays an essential role especially when is based on the existing possibilities of the concerned person.

Conclusions:

These modules will help students to have a complete vision of self-defense, to gain confidence in them and to explore all situations of aggression. Student will also have opportunities to reach the knowledge in science of self-defense. Many students after graduating from university will continue to practice self-defense in the various martial arts clubs. We consider that this material is foundation of all other future studies in self-defense because it covers many aspects of aggression and self-defense.

The complete study of self-defense is a continuous lifetime work and covers many hundred thousand pages.

This presentation of the modules is especially for civilian students and for students enrolling in sport universities with specialization in combat sports. For military students, the number of modules, complexity and variety of information and knowledge is at least double. But there is also at least double time scheduled for study in university.

Reference

- FRAZZEI F., (1969), *Arta Apărării Individuale (Jiu Jitsu)* Editura Militară București.
ENACHE I., (1999), *Autoapărarea Fizică*. Editura Fundației România de Măine București.
ȚILICĂ L., (1997), *Kung Fu Fang Shen Fa Autoapărare pentru femei*. Editura Garell Publishing House București.
IONESCU M.L., (1998), *Kung Fu Sanshou Sanda Full Contact Chinezesc*. Editura Garell Publishing House București.

Personal notes from seminars, internships, and training camps.

THE EFFECTS OF AEROBICS PRACTICE ON THE OVERALL PHYSICAL TRAINING LEVEL OF THE UNIVERSITY OF BUCHAREST FEMALE STUDENTS

Efectele practicării gimnasticii aerobice asupra nivelul pregătirii fizice a studentelor din Universitatea București

MONICA CRISTINA SAKIZLIAN

¹University of Bucharest, Romania

*sakizlian@yahoo.com

Abstract

Background. Research question aims to optimize functional pregătirii female students in university physical education by practicing aerobic gymnastics. The experimental program was developed and then investigated functional parameters were female students were included in the experiment. Dynamic indices of control and experimental group was statistically interpreted one year after application of the experimental program.

Objective. The aim of the research improving the educational training process in physical education by applying the specific means of aerobic gymnastics to first year university students. In this sense was given an experimental program with aerobics classes has been applied during an academic year for experimental group. Worked in the control group after specific traditional planning general physical training lessons.

The research hypothesis. It was assumed that the use of specific aerobic gymnastics in physical education lessons with students in higher education, will contribute substantially to optimize their level of functional training.

Methods of research: bibliographical study, questionnaire-based method, statistical and mathematical method and graphical method.

Results: Analyzing the results of statistically we can confirm that aerobics classes with emphasis on cardio link effectively helped the students to improve fitness.

Conclusions: Analysis of the results obtained by the two groups to the functional tests, lead us to conclude that their development is good for subjects experiment with more in favor of the experimental group.

Key words. Physical education lesson, female students, general physical training, functional training, aerobic sports, aerobics.

Introduction

Exercise capacity varies from one individual to another, as it depends largely on genetic inheritance, natural skills and physical condition treated by training. To assess functional training level female students under study we applied a battery of functional tests, aimed at maximal anaerobic power, body recovery after exercise and body adapt to stress. To follow the dynamics of these results were compared with model profile developed specialist in the Department of Physical Education, University of Bucharest accomplished by monitoring a number of 5000 students during the five years of study.

The research hypothesis. It was assumed that the use of specific aerobic gymnastics in physical education lessons with students in higher education, will contribute substantially to optimize their level of functional training.

Results

Level subjects undergoing functional training is not satisfactory experiment reported all professional models. The results obtained were the starting point in the development of experimental methods used to increase physical and functional potential of female students aged 18-22 years. Next, we present in Table 1 the results obtained by students who took part in the experiment teaching.

Table 1. *Dynamic functional indices (n = 50)*

Control samples	Groups of subjects	Initial testing	Final testing	t	P
		$\bar{X} \pm m$	$\bar{X} \pm m$		
Heart Rate, beats/min.	E	73,96±0,93	69,92±0,34	4,95	<0,001
	M	73,28±1,04	72,84±0,96	3,38	<0,05
t,p		0,48>0,05	2,85<0,01		
Vital capacity, cm ³	E	3516±76,95	3876±80,2	5,10	<0,001
	M	3584±108,11	3612±97,18	0,80	>0,05
t,p		0,51>0,05	2,09<0,05		
Test RUFFIER- IR	E	11,62±0,25	9,96±0,38	5,10	<0,001
	M	11,4±0,19	11,08±0,22	1,51	>0,05
t; P	E-M	0,70>0,05	2,53<0,05		
TESTUL SARGENT- P	E	103,39±4,31	131,07±4,99	5,38	<0,001
	M	105,30±3,78	110,85±4,17	2,76	<0,01
t; P	E-M	0,33>0,05	3,10<0,001		
Test HARWARD - IH	E	64,43±1,87	80,01±1,77	6,8	<0,001
	M	66,1±2,12	67±1,89	1,81	>0,05
t; P	E-M	0,58>0,05	5,00<0,001		

The analysis and the interpretation of the results

Heart rate (beats / min.). During initial testing of the experimental group, the arithmetical mean values are 73.96 to 0.93 average error and the control group are 73.28 to 1.04 average error. At final testing, arithmetic mean values of the experimental group reached 69.92 with a mean error of 0.34, while the control group mean values reach 72.84 with a mean error of 0.96. It is noted that the experimental group exceeded the model in the literature (70.35 beats / min.).

Differences between initial and final testing experimental group shows that “t” calculated value 4.95 is greater than “t” spreadsheet (Fisher) to materiality 0.001, demonstrating significant differences between tests. Regarding the control group value of “t” is calculated is greater than 3.38 “t” statistic, also resulting in significant differences between tests, but at P <0.05.

Noting differences between the experimental and control environments initial testing, it shows that “t” calculated value is less than 0.48 “t” statistic at p > 0.05, the test result is insignificant and final “t” calculated the value 2.85 is greater than “t” statistically significant result at P <0.01.

Following these findings, we can say that the final testing results due to systematic effort subjects who underwent two groups during the experiment. Also, regardless of the means used (mainly physical, technical and tactical), the total effort that was applied to both groups, leading to cardiovascular adaptation to the requirements of sporting activity.

Spirometry (cm³). During initial testing, the arithmetic mean of the experimental group values are 3516 with 76.95 average error and the control group is 3584 with error 108.11. Final testing of the experimental group arithmetic average values reach 3876 with the average error of 80.2, while the control group mean values reach 3612 with error of the mean of 97.18. It is noted that the experimental group was closer to the model of literature values (4245 cm³).

Differences between initial and final testing experimental group shows that “t” calculated value 5.10 is greater than “t” spreadsheet (Fisher) to materiality 0.001, demonstrating significant differences between tests. Regarding the control group value of “t” is calculated as less than 0.80 “t” statistically significant differences between test result at P <0.05.

Noting differences between the experimental and control group at initial testing, it shows that “t” calculated value is less than 0.51 “t” statistic at P > 0.05, and the test result is insignificant final “t” calculated the value 2.09 is greater than “t” statistic at P <0.05, resulting in significantly.

Thus, these tests confirm the fact that the training program applied experimental group had a significant contribution to the vital capacity of female students compared to control group. Confirmed by research, that the aerobic exercise has a positive influence on the functional capacity of female students and it can be said that the implementation of its specific means lessons students can make significant changes in effort capacity.

Ruffier Test. Initial testing it was found that the arithmetic mean of the experimental group values are 11.62 with a mean error of 0.25, while the control group is 11.4 with a mean error of 0.19. Final testing of the experimental group arithmetic average values reach 9.96 with a mean error of 0.38, while the control group mean values reaching 11.08 with average error of 0.22. It is noted that the experimental group was closer to the literature values model (7.13).

Differences between initial and final testing experimental group shows that “t” calculated value 5.10 is greater than “t” spreadsheet (Fisher) to materiality 0.001, demonstrating significant differences between tests. Regarding the control group value of “t” is calculated as less than 1.51 “t” statistically significant differences between test result at $P < 0.05$.

Noting differences between the experimental and control groups at initial testing, it shows that “t” calculated value is less than .70 “t” statistic at $P > 0.05$, and the test result is insignificant final “t” calculated the value 2.53 is greater than “t” statistic at $P < 0.05$, resulting in significantly.

Statistical final tests show values for the experimental group near professional model and fit the “medium” adaptation at effort. Control group's results are weaker adaptation is falling “weak” for effort. Body adapt to stress, determined using test Ruffier undergoes changes due to training. These changes are reflected in a more rapid return to normal pulse rate for subjects involved. Group confirmed the results statistic showing that the end of the experiment obtained a better adaptation to the control group effort because our proposed program with specific means aerobic gymnastics.

Sargent Test. Initial testing it was found that the arithmetic mean of the experimental group values are 103.39 with a mean error of 4.31, while the control group are 105.30 with a mean error of 3.78.

Final testing arithmetic mean values of the experimental group reached 131.07 with the average error of 4.99, while the control group mean values reach 110.85 by the average error of 4.17. It is noted that the experimental group was closer to the literature values model (127.34).

Differences between initial and final testing experimental group shows that “t” calculated value 5.38 is greater than “t” spreadsheet (Fisher) to materiality 0.001, demonstrating significant differences between tests. Regarding the control group value of “t” of 2.76 is calculated is greater than “t” statistically significant differences between test result at $P < 0.01$.

Observing the differences between the experimental and control groups at initial testing, it shows that “t” calculated value is less than 0.33 “t” statistic at $P > 0.05$, and the test result is insignificant final “t” calculated the value 3.10 is greater than “t” statistic at $P < 0.001$, resulting in significantly.

According to the literature, Sargent provides a qualitative test of the level of training they are students. Experimental group received the final test results that exceed the specific model and which employs a qualifier “satisfactory” for maximal anaerobic power. Control group also recorded significant values being included everything from “satisfactory”. Given the progress in the development of the two groups arithmetic can say that the program has worked and experimental group was a better basic training to optimize functional training of female students included in pedagogical experiment

Harvard Test. During initial testing of the experimental group arithmetic mean values are 64.43 to 1.87 average error and the control group are 66.1 with 2.12 average error. Final testing arithmetic mean values of the experimental group reached 80.01 with average error of 1.77, while the control group mean values reach 67 with a mean error of 1.89. It is noted that the experimental group was closer to the literature values model (85.46).

Differences between initial and final testing experimental group shows that “t” calculated value is greater than 6.8 “t” spreadsheet (Fisher) to materiality 0.001, demonstrating significant differences between tests. Regarding the control group value of “t” of 1.81 is calculated is lower than the “t” statistically significant differences between test result at $P < 0.05$.

Observing the differences between the experimental and control group at initial testing, shows that “t” calculated value is less than 0.58 “t” statistic at $p > 0.05$, the test result is insignificant and final “t” calculated the value 5.00 is greater than “t” statistic at $P < 0.001$, resulting in significantly.

Therefore, recovery heart rate after performing a submaximal effort is an indicator for fitness evolution of students female included in the experiment. Experimental group was assessed at the beginning of the experiment with an average fitness (65-79) and the final testing statistical results showed that in the range of fitness (80-99). Progress control group throughout the experiment was insignificant placing it on it was between the initial test and the average fitness (65-79).

Analyzing the results of statistically we can confirm that aerobics classes with emphasis on cardio link effectively helped the students to improve fitness.

Conclusions

Summarizing the results of the functional tests can make some assessments and observations:

1. Comparative analysis of vital capacity shows that the experimental program that was implemented during the academic year managed to change the vital capacity of female students included in the experiment increasing it to 3876 cc., A value that is closer to the specialized model.

2. Final test statistic values for Ruffier test indicates for experimental group approaching by model specialized and fit “medium” to adapt to effort. To control group results are weaker adaptation is falling “weak” for effort.

3. Arithmetical mean of the Sargent test for the experimental group exceeds the specialist model and confirms the usefulness of our program, which was a better basic training to optimize functional training of female students included in the experiment teaching.

4. Fitness assessment using Harvard test shows significant results for the experimental group between initial and final test at $P < 0.001$ while the control group is significant results at $P < 0.05$. On the value of the Student test between the two groups at final testing can be seen that the results are statistically significant at $P < 0.001$. Return of heart rate after performing a submaximal effort is an indicator for assessing the fitness of female students included in the experiment . Experimental group was assessed at Harvard test at the beginning of the experiment with average physical condition (65-79) and the final testing statistical results showed that in the range of fitness (80-99). Progress control group throughout the experiment was insignificant placing it on it was between the initial test and the average fitness (65-79). Analyzing the results of statistically we can confirm that aerobics classes with emphasis on cardio link effectively contributed to improving student fitness.

5. Analysis of the results obtained by the two groups to the functional tests, lead us to conclude that their development is good for subjects experiment with more in favor of the experimental group. Functional ability at this age is in full transformation and can be influenced by the quality of sports training.

6. All indicators were influenced favorably functional training program applied our experiment, with significant increases for the experimental group. They must be considered premises for good development effort towards optimizing capacity of female students.

References

- SAKIZLIAN, M., (2014), *Curs de Gimnastica aerobică pentru studenții Universității din București*. Editura Universității din București, București.
- SAKIZLIAN, M., (2011), *Tae Bo în lecția de educație fizică din învățământul universitar - Curs practic pentru studenți*. Editura Universității din București, București.
- SAKIZLIAN, M., (2012), *Optimizarea pregătirii funcționale a studentelor în cadrul educației fizice universitare*, Teză de Doctorat, Chișinău, Republica Moldova.

EVALUATION OF THE TECHNICAL PARAMETERS OF THE BASKETBALL PLAYERS FROM THE UNIVERSITY OF BUCHAREST

Evaluarea parametrilor tehnici a studenților baschetbaliști din Universitatea din București

ROBERT SAKIZLIAN

¹University of Bucharest, Romania

*sakizlian@yahoo.com

Abstract

Background. Optimize the training process of basketball students introducing preliminary training games, and show how is possible to enhance the effort capacity at the students basketball players.

Objective. The research aims to optimise and enhance the physical effort capacity of students basketball players, during the training period is that to optimise, the training of basketball students in the effort to increase their effort capacity. Within the framework of this context have been elaborated the methodology for selection and applying of preliminary games in the sport of basketball training.

The research hypothesis. Analysis of basic issues in the selection of basketball at the stage of initiation is done poorly. Findings reported at the model level basketball training novice drivers will facilitate specific training plans for 18-22 years of age.

Methods of research: bibliographical study, questionnaire-based method, statistical and mathematical method and graphical method.

Conclusions. Studying the evidence of specific motricity results can be seen, as in general physical training that the values obtained are below the model. Insufficient development of general physical preparation adversely affects the motricity of the results of specific tests.

Key words: training, players, games, physical training, preliminary games basketball game tactical training.

Introduction

Due to the various forms that it presents itself, physical training should be systematized by widening the sphere of the coverage and the priority method is used, as such : general physical training and physical training specific. As you progress through specific training weight training increases.

Specific motility control samples, applied sample of 100 subjects investigated were the number 7 and the results were statistically processed and arithmetic values were compared with the specialized model (Table 1).

The research hypothesis

Analysis of basic issues in the selection of basketball at the stage of initiation is done poorly. Findings reported at the model level basketball training novice drivers will facilitate specific training plans for 18-22 years of age.

Results

Table 1. Motricity comparative results of specific model of the specialized model (n -100)

Control samples	X (E.I.)	± m	X (M.S.)	
Drilling (sec.)	6,14	0,05	5,5	
Pass to the wall	11,75	0,17	12	
The Jump shot	6,88	0,50	10	
Shoting from the dribble	Time	53,72	0,59	51
	Scor points	8,29	0,17	9
	Indice de efic.	1,54	0,03	1,76
Free throws (points.)	4,88	0,27	5	
Go with the added step (sec.)	25,7	0,41	23	
Movement on all the court (seconds))	37,55	0,36	36,5	

The analysis and the interpretation of the results

Dribbling (sec) (Table 1, Fig. 1)

Dribbling is the most spectacular element of the game of basketball, while asking the person who executed it perfect control of the ball. The impression of ease of players who have a good dribble is actually the result of their long practice in which they form a sufficient variety of executions. This variety of execution of dribbling it gives a high value of their game, they become very dangerous when they have the ball.

Thus, to test this we used a technical indicator to dribble through cones challenge, where the average sample has a value of 6.14 seconds, with an average error of 0.05 sec., and the average model is targeted at 5,5 seconds. Comparing the average values of both observed that, during execution to dribbling in the sample studied is higher with 0.64 seconds. Dribbling is the technical element that allows the player to move in all directions and at any rate regime and should therefore be the most important part of early stages of learning the game of basketball.

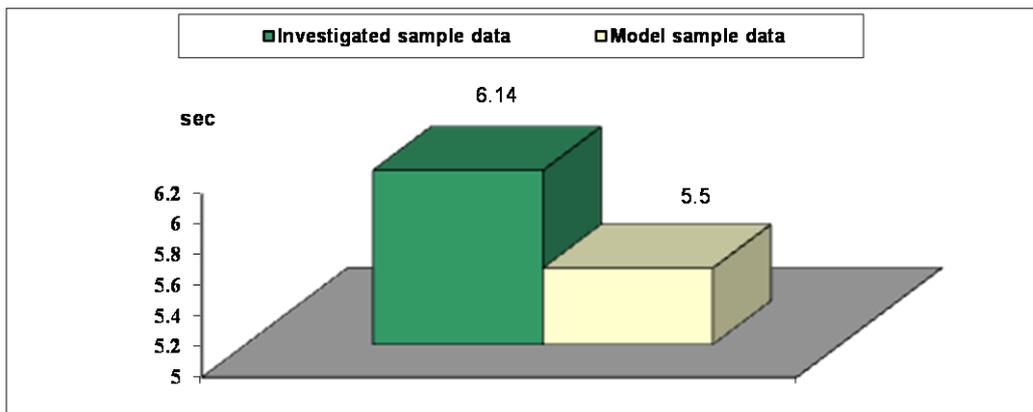


Fig. 1. Dribbling

Pass to the wall. (no. repetitions in 15 sec) (Table 1, Fig. 2).

Comparison of mean value of 11.75 sample investigated model replicates the average of 12.0 repetitions specialized work, we observe a smaller difference of 0.25 from the model replicates. Analyzing the results of the sample investigated statistical calculations see an average error of 0.17 repetitions.

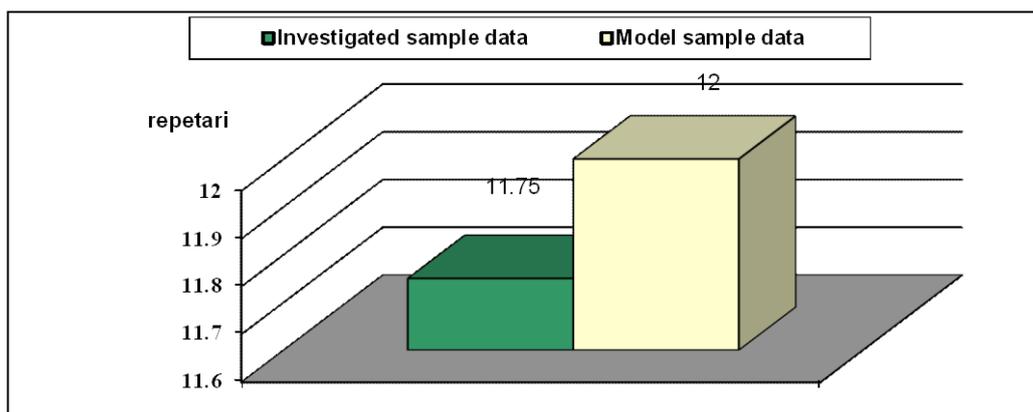


Fig. 2. Pass to the wall

The Jump shot (the number of sections in 30 sec.) (Table 1, Fig. 3).

The jump shot represents a very important technique in the game of basketball, so that may be considered a good indicator of technical progress at basketball beginners. The model for the jump shot at basketball beginners groups should be 10 points scored in 30 sec.

Outcomes of the experiment the groups subject to acknowledgment to reach the 6.88 points scored with an average error of 0.50 point difference of 3.12 points for the specialty model we suggest that this indicator should be developed through various means achieving specific results by age 12-14 years.

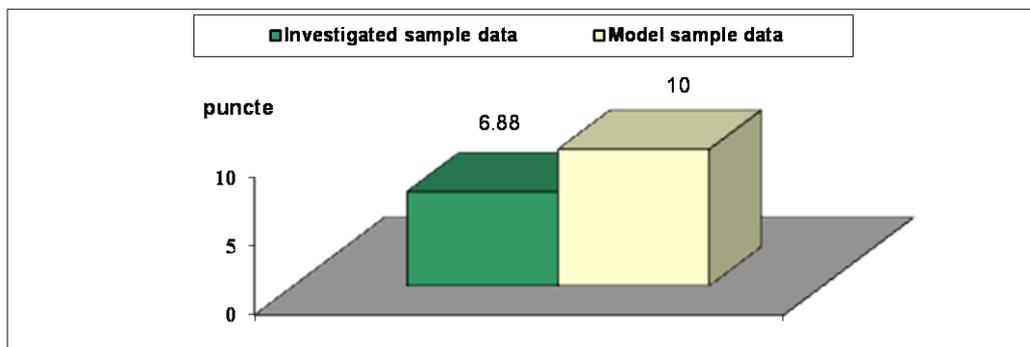


Fig. 3. Jump shot

Shooting from the dribble (Table 1, Fig. 4).

- execution time (sec.) – investigated sample shows an average value of 53.72 seconds and the average expert model is 51.0 seconds. Comparing the average values of both observed that, during the execution of the sample studied is higher 2.72 seconds.

Analyzing the results of the sample investigated statistici indices show an average error of 0.59 sec.

- points scored (section) – reporting the average value of 8.29 points investigated sample, the average model in the specialized works of 9 points, a difference of less than 0.71 points from the model.

Analyzing the results of the sample investigated statistical calculations see an average error of 0.17 points.

- index of efficacy – the sample average of 1.54 is investigated, unlike the specialized media model is 1.76. There is a difference of 0.22 index for specific model.

From the results of statistical calculations investigated sample shows a mean error of 0.03.

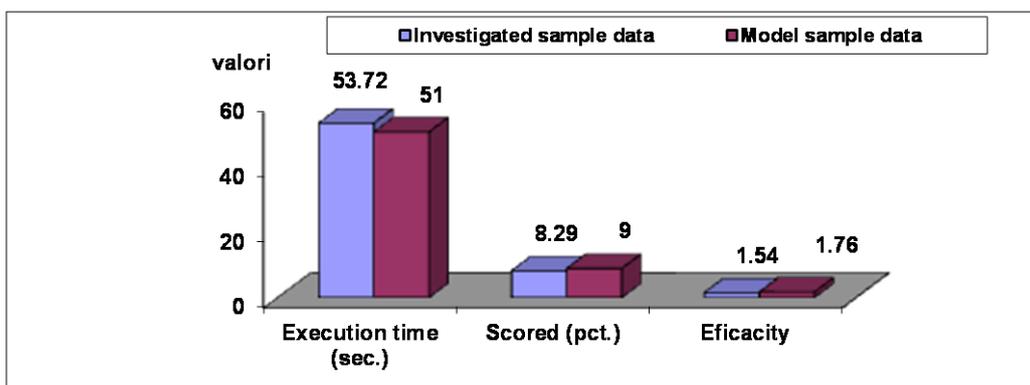


Fig. 4. Shooting from the dribble

Free throws (pct) (Table 1, Fig. 5).

When testing this indicator has investigated a sample average value of 4.88 points with an error of 0.27 points and the average model is 5-point specialist. Comparing the average values of the two note that the sample of free throws the score is lower by 0.12 points investigated.

Free throws are the easiest way to make, and during a basketball game can be very important to succeed in their advantage. Everything depends on the ability to concentrate and training of the player in adding a point in favor of his team. The performance of our experiment shows that under the quota contributors to this difference probă front is very specialized model magnitude, why have not insisted on this particular indicator preparing juniors.

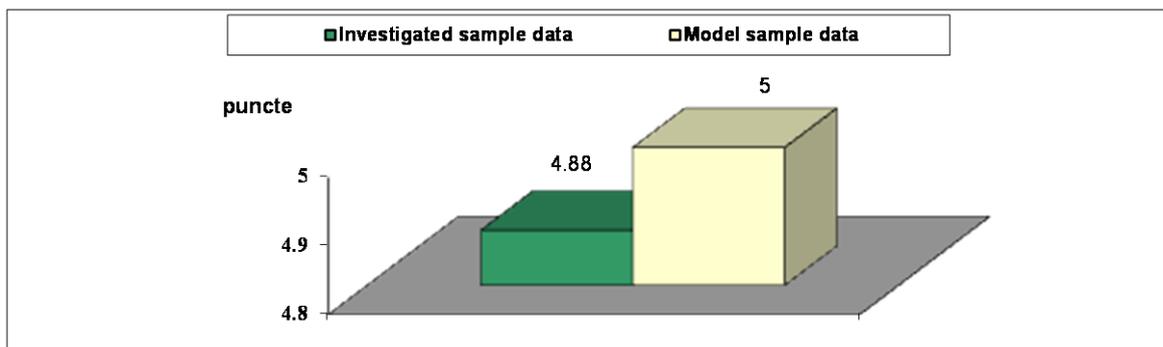


Fig. 5. Free Throws

Go with the added step (sec) (Table 1, Fig. 6).

Particularly important challenge in the technique of the player without the basketball ball-by-step movement is also included in the experiment to highlight the value of experimental groups compared with the model professional. Investigated sample average value is 25.7 seconds with an error of 0.41 sec and the average model in the specialized work of 23 seconds. We observe a difference of more than 2.7 seconds of the model. This difference makes us believe that great need for action of the basketball practice of beginners especially towards the perfecting elements without the ball technique to obtain results close to professional models.

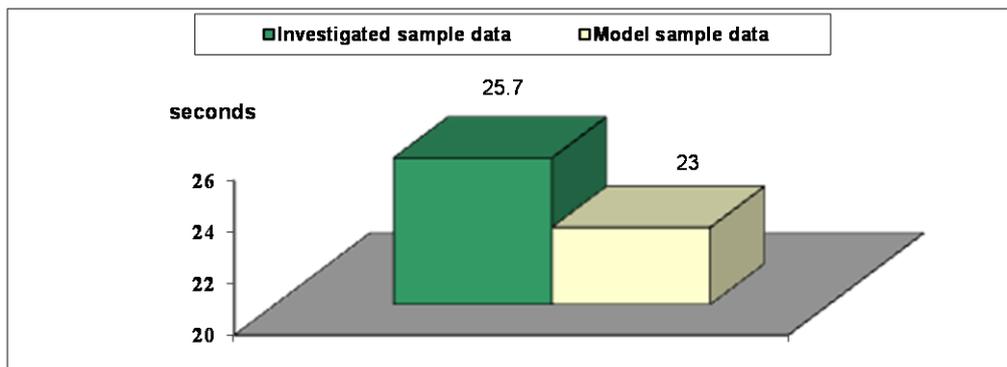


Fig. 6. Added step

Movement on all the court (seconds) (Table 1, Fig. 7).

Investigated sample has an average of 37.55 seconds, with an average error of 0.36 sec., unlike the specialized media model is 36.5 seconds. There is a difference of 1.05 seconds running time for specialized model.

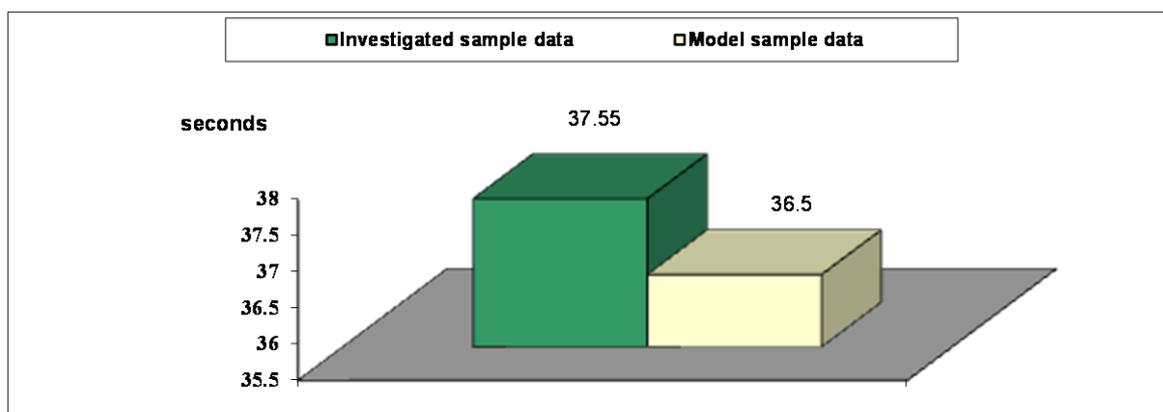


Fig. 7. Movement on all the court

Conclusions

1. Studying the evidence of specific motricity results can be seen, as in general physical training that the values obtained are below the model.
2. Insufficient development of general physical preparation adversely affects the motricity of the results of specific tests.
3. One can say that without proper training or general fitness training results will not have a technical optimum level.

References

- ALEXE, N., (1993), *Antrenamentul sportiv modern*. București: Editis, București.
- CIORBĂ, C., (2001), *Baschetul la 8-12 ani*. Chișinău: Editura Garuda Art, Chișinău.
- SAKIZLIAN, R., (2011), *Optimizarea capacității de efort a studenților Baschetbaliști*. Editura Universității din București, București.

ANALYSIS OF THE GAME PLAN PARAMETERS FOR THE WOMEN'S BASKETBALL REPRESENTATIVE TEAM OF THE UNIVERSITY OF BUCHAREST AND THE ESTABLISHMENT OF SMART OBJECTIVES IN ORDER TO IMPROVE PERFORMANCES

Analiza parametrilor modelului de joc al echipei reprezentative de baschet feminin a Universității din București și stabilirea obiectivelor smart în vederea îmbunătățirii performanțelor

ADRIANA STOICOVICIU

University of Bucharest, Romania

a.stoicoviciu@yahoo.com

Abstract

Background. Programming and planning is a multi-step process that generally begins with the definition of the problem and development of an evaluation plan. Although specific steps may vary, they usually include a feedback loop, with findings from program evaluation being used for program improvement.

Objectives. From the analysis of training activity evolution and the results recorded in recent years representative team basketball girls we have identified weaknesses that could be factors responsible for greater value and also setting goals designed to further improve outcomes. Our paper aims at identifying the causes that could represent the main factors susceptible to hinder the obtaining of better performances (to be ranked among the first 3 teams in the University National Championship), but also at finding some solutions meant to improve the results of the Bucharest University basketball team.)

Methods. We started with the SWOT analysis, as an efficient method used for the strategic planning oriented to the identification of potentials and priorities and to the creation of a common vision on the development strategy achievement. Following previous analysis, we have created a training plan that is to be focused on setting SMART goals, made correctly, and are intended to provide consistent benchmarks in evaluating of the results obtained in the process.

Results. We could notice a poor offensive performance caused by the lack in individual skills and a weak collaboration between players, scoring being achieved mostly by individual actions. Therefore, improving these aspects will be made by working on the aspects that the players lack the most.

Conclusion. Using SMART objectives in the programming and planning training is designed to lead to improved athletic performance in the shortest time possible, clear and focused on the general objectives of the training.

Keywords: programming and planning, smart goals, performance

Introduction

During sports training, the importance of design is crucial for reaching optimum performance by the scheduled date.

Sports performance is based in integrating the components ensuring the dynamics of generating body adaptations within a coherent, continuous and seamless process. In this regard, Jinga I., Negreț I. (1994, p 198) advanced the idea of a so-called “procedural algorithm” which directs the training-educative process, an algorithm also applicable to sports training and which consists of “what will I accomplish?”, “with what will I accomplish it?”, “how will I accomplish it?”, “how will I know if what needed to be accomplished was actually accomplished?”. Embodying the principles within sports training, Colibaba-Evulet, 1998 (p 117) believed that the process of teaching design requires the observance of five benchmarks representing the conditions which ensure the possibility of achieving sporting performance:

„a) the maximum performance achieved to date (who, when and what?) and the estimate of the increase thereof in the future;

- b) the conditions facilitating such performances (resources spent, availability, organization, management and control of the production process, etc.);
- c) production technology and strategy used;
- e) criteria for assessing the quality and efficiency of the production achieved”.

The artistry of the coach implies “making, determining” the athletes “to believe in themselves”, “to perform with conviction” that which they believe to be right, but also interlocking his beliefs with the athlete’s capability and desire. In this regard, the coach is provided with a number of tools, methodical procedures, so as to help encourage the participation of athletes in the assertion and promotion process.

The completion of each stage requires at one question and the formulation of at least one concrete and analytical answer.

Establishing objectives is the estimation and sizing stage for the final, intermediate and operational goals and objectives within the training and educational process, up to the basic level which ensures the translation into practice of activities, for the discipline/sporting trial practiced by the teams/athletes.

Starting from the evolution of the training activities and the results previously recorded, the trainer/coach, through an act of creation, designs the activity strategy. The activity design firstly implies the establishment of objectives regarding training indicators and the objectives regarding performance values. Performance values represent the result of adaptations recorded by each individual athlete, depending on the methods of involvement, motivation and the performance achieved, materialized from time to time, the distance, number of repetitions, score, weight, etc.

SMART is an acronym of features deemed essential in formulating the objectives, namely: specific, measurable, accessible, relevant and time-defined.

The aim of using the SMART objectives is to help achieve the results desired within the shortest possible time span, in a manner that is coherent and focused in the general objectives. At the same time, when done correctly, their role is to provide constant benchmarks for evaluating the results obtained along the way.

What each of them means and how they help hammer out the training plan:

Specific – provides information on the features specific to a certain objective. The objective pinpoints exactly what one desires to achieve and leaves no room for interpretation.

In order to check if an objective is Specific or not, use questions such as: Who is involved?; What exactly do we want to achieve?; When should it be done?; Where is it achieved?; What are the requirements and limitations?; Why are we required to do this?

An objective may not mandatory answer all the aforementioned questions at the same time.

For example, the fact that we intend to increase the efficiency of offensive technique procedures if a very ambiguous objective, as it does not provide the possibility of a form of assessment. In order to be specific, the objective must be formulated as follows: “Increasing the percentage of mid-ranged points scored within a 6 month interval by 10%.”

Measurable – provides the quantitative and qualitative features of an objective, which can be measured according to the units of measurement known. An objective without a means of quantification is like a football match where nobody keeps score: everybody is running, but nobody knows who has won.

Accessible – means that an objective can actually be achieved given the ability and resources available.

An objective that you want to achieve too soon will generate an immense amount of pressure on the team and will lead to demotivation when the objective is not achieved.

Relevant – Achieving an objective must fundamentally contribute to achieving a greater, more general goal. The relevance of the objective is assessed compared to this greater objective. In this regard, it must sight out a certain impact.

Time-defined – refers to a certain, clearly defined time interval, regarding the status of achieving the objective.

An example of a time-defined objective is: “Increasing the percentage of long-range and mid-range points scored during the October 1, 2015 – May 1, 2016 period.”

“Challenging” has replaced “Achievable” or “Realistic”. This is an essential difference and is crucial to the success of the goal. When we set goals for others, we aim too high, demotivating the

team. When we set goals for ourselves, our limiting beliefs, fear or lack of vision may come into play and it is sometimes difficult to admit what we really want.

Objectives

From the analysis of training activity evolution and the results recorded in recent years representative team basketball girls we have identified weaknesses that could be factors responsible for greater value and also setting goals designed to further improve outcomes. Our paper aims at identifying the causes that could represent the main factors susceptible to hinder the obtaining of better performances (to be ranked among the first 3 teams in the University National Championship), but also at finding some solutions meant to improve the results of the Bucharest University basketball team.

Method

The first step is the analysis of strengths and weaknesses, the objective framework and the conditions for carrying out activities, as well as the human resources available.

We started with the SWOT analysis, as an efficient method used for the strategic planning oriented to the identification of potentials and priorities and to the creation of a common vision on the development strategy achievement.

STRENGTHS

- the existence of a specialized teaching staff;
- students' desire to get involved in the competitive sports activity;
- students with a motor experience and an appropriate physical preparation;
- the existence of physical education within the curriculum;
- the presence in the sports hall time schedules of some optimum positions for the training sessions of the representative teams

WEAKNESSES

- inappropriate facilities;
- the charged curriculum;
- students' involvement in extracurricular activities;
- a competitive system with a small number of games;
- the reduced number of hours allocated to sports training;
- the insufficient popularization of the sports phenomenon;
- the lack of education and culture for physical and sports activities;
- the lack of efficiency in attracting funds from sponsorships.

OPPORTUNITIES

- the existence of a tradition in the University competitive activity;
- a large selection basis;
- student stimulation by awarding them grades and credits;
- the existence of a competitive system focused on the qualification for the national phase.
- the insufficient funds for the training and competitive activities;
- the institutional activity reorganization.

THREATS

- the insufficient funds for the training and competitive activities;
- the institutional activity reorganization.

The second stage implied the analysis of game plan parameters during the last 5 years within the Municipal University Woman's Basketball Championship.

As a result of studies conducted on the woman's representative basketball team, regarding the technical and tactical content of the game, generated by the recordings made during official games, we have constructed the game plan and training program for the following competitive year, in order to increase efficiency and to improve game plan parameters.

Table1. *Technical and tactical analysis of the game content*

<i>Offensive</i>	<i>Nr.*</i>	<i>Defensive</i>	<i>Nr.*</i>	<i>Shooting</i>	<i>Nr.*</i>	<i>%</i>
Pases	61	Still	3	Lay-up	41-16	39%
Ball fake	15	still	1	Mid-range	36-12	33%
Penetrations	21	Blocks	1	3 points	11-3	27%
Get by	10	Help side	2	Free-throws	22-12	54%
Rebounds	15	Rebounds	4			
Give and go	3	Switch	5			
Screen	4	Close out	3			
Turnovers	20					

Nr.- average of tehcnical and tactical actions in the game*

Results

The first step in achieving the objectives proposed was underlining the training of a new generation of active, educated youths, with social and economical integration skills, socialization abilities, from a healthy and vigorous population. It is what we call vision within our approach.

It was followed by the establishment of a strategy in order to achieve the vision, embodied in the demand for sports, increased interest in sporting activities, both as practitioners and as spreaders, the desire to be part of the representative team, increased sporting and self-esteem performances and the development of a competitive spirit.

Following the analysis of the technical and tactical content of the game and considering the training conditions and the human potential at our disposal, we have established the objectives for the current year.

Based on this data, we believe the issues that can be drastically improved during the available period, October 1st 2015 through May 30th 2016 are:

10% increase in the shooting percentage from the paint (lay-up drills);

10% increase in mid-range shooting percentage;

10% increase in three points shooting percentage;

10% increase in free-throw shooting percentage.

The other game components will be found within the 3x3 and 5x5 scrimmage on half and full court, drills for offense and defense which will target the following:

Improvement in accuracy and efficiency of all passes in the presence of an opponent, leading to a decrease in the number of turnovers;

Improvements of tactical combination “give-and-go”;

Improvement of tactical combination on and off the ball screens;

Perfecting the offense system against the 2-1-2 zone;

Perfecting the man-to-man defense and 1-3-1 zone defense.

Our goal will be achieved in the topics that will directly target the objective, the number being accompanied reps, pause. It is what we call action plan, if our case annual plan.

INDICATOR	OCTOBER	NOVEMBER	DECEMBER	JANUARY
	I II III IV V VI VII VIII	I II III IV V VI VII VIII IX	I II III IV V	I II III IV V VI
Min	50 50 50 50 50 50 50 50	50 50 50 50 50 50 50 50 50	50 50 50 50 50	50 50 50 50 50 50
a.a.1.	5 5 5 5	5 5 5 5 5	5 5	5 5
a.a.2.	5 5 5 5	5 5 5 5	5 5	5 5 10
a.a.3.	5 5 5 10 5	5 5 5 10 5	5 5	5 5
a.a.4.	5 5 5 5	5 5 5 5 10	10 5 5	10 5 5
a.a.5	5 5 5	5 5 5	10 5	10 5
a.a.6.	10 5	10 5 10	5 5	5 5 5
a.s.1.	10 10 10	10 10 10	10	10
a.s.2.	10 10 10	10 10 10 5	10 10 10	10 10 10
a.s.3.	10 10	10 10	10	10 10
a.s.4.	10 10 5	10 10 5	10	10

a.s.5.	10 10 10	10 10 10 5	10 10	10 10
a.s.6.	10 10 10	10 10 10 5	10	10 10
a.s.7.	10 10	10 10	5 10	5 10
a.d.1.	5 5 10	5 5 10	10	10
a.d.2.	5 5	5 5 5	10 10	10 10
a.d.3.	10 5	10 5	5	5 5
a.d.4.	5	5 10	10 5	10 5
a.d.5.	10 10	10 10	5	5 5
a.d.6.	10 10	10 10	10 5	10 5 5

INDICATOR	FEBRUARY	MARCH	APRIL
No. of lessons	I II III	I II III IV V VI VII VIII IX X	I II III IV V VI
DURATA(min)	50 50 50	50 50 50 50 50 50 50 50 50 50	50 50 50 50 50
a.a.1.	5	5 5 5 5 5	5 5
a.a.2.	5 5	5 5 5 5	5 5 10
a.a.3.	5	5 5 5 10 5	5 5
a.a.4.	10 5	5 5 5 5 10	10 5 5
a.a.5.	10	5 5 5	10 5
a.a.6.	5	10 5 10	5 5 5
a.s.1.		10 10 10	10
a.s.2.	10 10	10 10 10 5	10 10 10
a.s.3.	10	10 10	10 10
a.s.4.	10	10 10 5	10
a.s.5.	10	10 10 10 5	10 10
a.s.6.	10	10 10 10 5	10 10
a.s.7.	5	10 10	5 10
a.d.1.		5 5 10	10
a.d.2.	10	5 5 5	10 10
a.d.3.	5	10 5	5 5
a.d.4.	10	5 10	10 5
a.d.5.		10 10	5 5
a.d.6.	10	10 10	10 5 5

INDICATOR	OCTOBER	NOVEMBER	DECEMBER	JANUARY
No. of lessons	I II III IV V VI VII VIII	I II III IV V VI VII VIII IX	I II III IV V	I II III IV V VI
Duration (min)	50 50 50 50 50 50 50	50 50 50 50 50 50 50 50	50 50 50 50	50 50 50 50 50
3x3 with specific tasks	15 15 15 15 15 15 15	15 15 15 15 15 15 15 15	15 15 15 15	20 20 20 20 20
5x5 with specific tasks	35 35 35 35 35 35 35	15 15 15 15 15 15 15 15	15 15 15 15	
5x5		20 20 20 20 20 20 20	20 20 20 20	30 30 30 30 30

INDICATOR	FEBRUARY	MARCH	APRIL
No. of lessons	I II III	I II III IV V VI VII VIII IX X	I II III IV V VI
Duration (min)	50 50 50	50 50 50 50 50 50 50 50	50 50 50 50 50
3x3 with specific tasks	20 20 20	15 15 15 15 15 15 15 15	10 10 10 10 10
5x5 with specific tasks	20 20 20	35 35 35 35 35 35 35 35	20 20 20 20 20
5x5	10 10 10		20 20 20 20 20

Lay-up drills

a.a.1- lay-ups from the side of the rim

a.a.2- lay-ups from the middle of the lane

a.a.3- lay-ups with no dribble off the pass

a.a.4- the "non-stop" drill finishing with lay-ups

a.a.6- team competition drills

Both left and right hands will be used for finishing at the rim equally.

Mid-range shooting drills

a.s.1- working in pairs, both partners will shoot the ball from mid-range from different spots as following: be ready for the ball, jump stop, receive the ball, shoot, and move (3x20 reps)

a.s.2- working in pairs, the player will shoot the ball, will rebound his own ball and then pass it back to his partner who will do the same thing(3x20 reps)

a.s.3.- “non-stop” drill with mid-range shot(3x10 reps)

a.s.4.- “passing weave” - 4 players with two balls (3x10 reps)

a.s.5- 3 players will work with two balls: one player is shooting while the other two are rebounding and passing respectively while emphasizing the speed and the rhythm (3x20 reps)

a.s.6- mid-range shooting as following: getting open, jump stop, pump fake, jab step, dribble, stop and mid-range shot.

a.s.7 individual and team shooting competitions

The partner could also play dummy defense.

Drills for 3pt shooting

a.d.1- working in pairs, the players will shoot the ball from the 3pt line from different spots as following: be ready for the ball, jump stop, receive the ball, shoot, and move (3x20 reps)

a.d.2- working in pairs, the player will shoot the ball from the 3pt line, will rebound his own ball and then pass it back to his partner who will do the same thing (3x20 reps)

a.d.3- “non-stop” drill with 3pt shot(3x10 reps)

a.d.4- “passing weave” - 4 players with two balls (3x10 reps)

a.d.5- 3 players will work with two balls: one player is shooting three pointers while the other two are rebounding and passing respectively while emphasizing the speed and the rhythm (3x20 reps)

a.d.6- individual and team shooting competition

In between the series, players should shoot 10 free throws.

Conclusions

Using SMART objectives in the programming and planning training is designed to lead to improved athletic performance in the shortest time possible, clear and focused on the general objectives of the training.

We will follow the means aimed at achieving the objectives represent 50% of the time training lesson.

By official records in the game we can confirm or refute the hypothesis.

References

- COLIBABA E.D., BOTA, I., (1998), *Jocuri sportive. Teorie și metodică*. București, Ed. Aldin.
- JINGA, I., NEGREȚ, I., (1994), *Învățare eficientă*. București, Colecția Paideia, Editis.
- KEITH M, GREG K., (2008), *Survival guide for coaching youth basketball*. Human Kinetiks, Champaign IL, USA.
- PREDESCU T, GHITESCU G. BASCHET, (2001), *Pregătirea echipelor de performanta* . Ed. SEMNE, Bucuresti.
- STOICOVICIU A., (2010), *Jocuri sportive, Elemente de didactica in invatamantul superior*. Ed. Universitatii din Bucuresti.
- WILSON C., (2014), *Performance coaching a complete guide to best practice coaching and training*. Kogan Page.

**A STUDY ON THE SPORTS TRAINING AND INSTRUCTION IN TURKEY:
AN OVERVIEW OF HIGHER EDUCATION PROGRAMS
IN THE AREA OF SPORTS**

**Studiu privind formarea prin sport și instruirea în Turcia :
prezentare generală a programelor de învățământ superior în domeniul sportiv**

**EREN ULUÖZ^{1*}, CEM YOKSULER YILMAZ², İREM KAVASOĞLU³,
ANA MARIA GÜNSEL⁴, ZEYNEP FILİZ DİNÇ⁵**

^{1,2,3,5}*Çukurova Üniversitesi Beden Eğitimi ve Spor Yüksekokulu, Adana, Turkey*

⁴*Çukurova Üniversitesi Eğitim Fakültesi, Adana, Turkey*

* Corresponding author: proferde@hotmail.com

Abstract

Background. The higher education system in Turkey is governed by the Council of Higher Education (COHE). The higher education institutions providing training and instruction related to sports within this system are highly popular in Turkey.

Objectives. The purpose of this study is to analyze the programs of the higher education institutions providing training in the area of sports in Turkey. There are now 193 universities in Turkey which include 109 state universities, 73 private universities and eight private vocational colleges. Among these universities, the number of universities that provide training in the area of sports is 82, where 6 are private universities and 76 are state universities. All of these higher education institutions have been investigated in this study.

Methods. In this study, the document analysis method, which is one of the qualitative analysis methods, has been used. Documents related to the subject, available in the web sites of the COHE and the universities, have been used as the data source. General information pertaining to the total number of universities, types of universities and durations of training and instruction in Turkey have been accessed within the scope of the study.

Results. It has been noted as a result of the analysis that there are 82 higher education institutions and there are 54.449 students receiving training in these institutions. Graduate programs are available in 33 of these higher education institutions. In these graduate trainings, there are a total of 805 students where 656 students are enrolled in the M.A. programs and 159 are enrolled in doctorate programs. 1450 academic personnel, where 54 are professors, 143 are associate professors, 523 are assistant professors, 339 are instructors, 16 are specialists and 315 are research assistants, are employed.

Conclusion. It is thought that the physical conditions in the training environment and the number of academic staff per student are related to the quality of training. Therefore, it may be considered that the improvement of the training conditions in the existing training institutions may contribute to increasing the quality of training and instruction in these institutions. Furthermore, it may also be thought that the increased quality of training and instruction may contribute to resolving the employment problems of the graduates from these institutions of higher education. In addition, the success of the studies carried out in the area of sports education may provide opportunities to raise athletes who may be more successful in national and international competitions.

Keywords: Sports, Training, University, Turkey.

Introduction

The higher education system in Turkey is supervised by the COHE. The COHE is an autonomous institution which is responsible for the planning, coordination and governance of the higher education system in Turkey in accordance with the Turkish Constitution and the Higher Education Laws. Universities make their own academic calendars; the academic year generally starts in September and ends in June. There are winter and summer breaks. Summer school is also available at some universities. Turkish universities offer associate's degree programs, undergraduate degree programs, graduate programs, and post-graduate programs. Associate degree programs take two years.

Vocational high school graduates can qualify for the associate degree programs without taking any centralized entrance exams. Undergraduate degree programs generally take four years. Specialized undergraduate degree programs, such as medicine (six years), may be longer. Universities in Turkey offer a wide range of graduate programs. While graduate programs take about two years (non-thesis master's programs generally take 1.5 years), doctorate programs take about four years. Post-graduate opportunities are also available in universities in Turkey. Duration depends on the program and university. The National Qualifications Framework for Higher Education in Turkey (NQFHE/TYYÇ) developed with reference to the Qualifications Framework of the European Higher Education Area and the European Qualifications Framework for lifelong learning was adopted by the COHE in 2010. The levels of the NQFHE/TYYÇ with reference to the European overarching qualifications frameworks as well as that to ECTS (European Credit Transfer and Accumulation System) credits and student workload are shown below [1].

Universities in Turkey have been brought together under the roof a body called COHE with a Law passed in 1981. The Turkish university system has attained a united structure as of 1982 with 27 universities and the faculties, institutes, colleges, conservatories and vocational colleges under these universities. Having reached 2016, there are now 193 universities in Turkey which include 109 state universities, 73 private universities and eight private vocational colleges. Among these universities, the number of universities that provide training in the area of sports is 82, where 6 are private universities and 76 are state universities [2].

A system set up by the COHE is employed in accepting students to higher education institutions offering programs in the area of sports [3]. In this system the university entrance exam points, secondary education (senior high school) cumulative grade point averages and the points received in the special physical skill tests conducted by the higher education institutions within their own framework are calculated and a specified number of students are admitted by each institution of higher education. Although the special physical skill tests vary among higher education institutions, as a general principle, these tests test the candidates' basic motor skills and their skills that pertain to specific branches [4-6]. The basic motor skills that are generally tested in these tests are endurance, speed and skill coordination abilities. Endurance is tested by long-distance runs against time, speed is tested by short-distance sprints and skill coordination is tested by stations consisting of different components. While the testing of the basic motor skills of endurance, speed and skill coordination is considered adequate in the admission of students to the physical education instruction and recreation departments in the entrance examinations of many colleges, special tests, specific to the coaching branch applied for are conducted in addition to the test aimed at testing the basic motor skills of the candidates [5,6]. With regard to student admissions to the sports management departments however, although student admissions have been carried out on the basis of special skill tests for many years, there are applications on carrying out student admissions on the basis of centralized examinations to sports management departments in recent years and it is expected that all sports management departments will take up student admission procedures on the basis of a centralized system in the near future [4,7-10].

Methods

In this study, the document analysis method, which is one of the qualitative analysis methods, has been used. Document analysis covers the analysis of the written materials containing information on the phenomenon or events intended to be analyzed [11]. In this regard, the purpose of this study is to carry out a detailed examination of the programs of higher education institutions offering training and instruction in the area of sports in Turkey. Documents related to the subject, available in the web sites of the COHE and the universities, have been used as the data source. General information pertaining to the total number of universities, types of universities and durations of training and instruction in Turkey have been accessed within the scope of the study. In addition, information on the higher education programs in the area of sports at the universities in Turkey has been collected as well. Information regarding the types of higher education institutions in sports, student quotas, numbers of teaching staff, total numbers of student enrollment, numbers of new enrollments, in 2015, distribution of the number of students by sub-divisions and numerical values for sports related departments admitting students without physical skill examinations but on the basis of written examinations has been attained.

Furthermore, information pertaining to the graduate and doctorate programs related to sports has also been obtained within the scope of the study. The numbers of these graduate programs, the numbers of students enrolled for 2015 and the total numbers of students enrolled are among the main topics of information. Information on the numbers of teaching staff in these programs and the numbers of students per each academic staff member has been presented within the scope of the study.

Findings

It has been noted upon examining the results of the study that the units providing training in the area of sports at the universities in Turkey are grouped under three main headings. These are: “The Faculty of Sports Science”, “Academy of Sports Science and Technology” and “Vocational Schools of Physical Education and Sports” [2-10].

The sub-divisions providing training under these different higher education institutions are: “Physical Education Instruction Department”. “Coach Training Department” “Sport Management Department”, “Recreation Department”, “Department of Physical Education and Sports for the Handicapped” and “Department of Animation”. In 72 of the 82 higher education institutions providing training in the area of sports, there is a physical education instruction department in 74, a coach training department in 79, sports management department in 79, recreation department in 33, department of physical education for the handicapped in one and animation department in one [12]. Numerical values for these departments are given in Table 1.

Table 1. Number of students and teaching staff by educational institutions

INSTITUTION	STUDENTS (2015)			TEACHING STAFF(2015)						
	Newly Registered Students	Registered Students	TOTAL	Professor	Assoc. Prof.	Assist. Prof.	Instructor	Specialist	Research Assistant	TOTAL
THE FACULTY OF SPORTS SCIENCE	1073	4363	5436	16	29	81	89	1	68	284
ACADEMY OF SPORTS SCIENCES AND TECHNOLOGY	188	882	1070	2		9	3	2	5	21
VOCATIONAL SCHOOL OF PHYSICAL EDUCATION AND SPORTS	9568	38345	47913	36	114	433	307	13	242	1145
TOTAL -->	10829	43590	54419	54	143	523	399	16	315	1450

As noted in Table 1, the total number of students receiving instruction in the physical education and sport departments is 54,449 according to the 2015 data. 1450 academic staff members and other teaching staff, consisting of 54 professors, 143 associate professors, 523 assistant professors, 399 lecturers, 16 specialists and 315 research assistants are performing instruction duties. According to these data, the number of students per each academic staff member is 75 in the area of physical education and sports. The number of students per each member of the teaching staff however, is 37. On the other hand, the average in the higher education system in Turkey is 48 students per each academic staff member and 21 students per each teaching staff member. It is observed that the number of teaching staff per student and the number of academic staff members per student in the higher education institutions providing education in the area of sports are considerably below the average for Turkey. While there were physical education and sports departments and physical education and sports colleges in the 1990s, there is a tendency towards forming faculties of sports sciences as we approach the present. Colleges which are able to provide adequate academic staff and other required conditions are engaged in efforts to convert into the faculties of sports sciences. In 2016, there are still 14 faculties of sports sciences. In addition to these, there are three colleges of sports sciences and technologies [13].

Students who graduate from “faculties of sports sciences”, “colleges of sport sciences and technologies” and “colleges of physical education and sports” can attend graduate and doctorate programs in their areas. There are graduate training programs related to sports in 33 of higher education institutions connected to the higher education system in Turkey [14]. Numbers of graduate schools and doctorate students according to the data for 2015 are given in Table 2.

Table 2. *Number of Master and Doctorate Students*

	MASTER STUDENTS (2015)			DOCTORATE STUDENTS (2015)		
	Newly Registered Students	Registered Students	TOTAL	Newly Register	Registered Stud	TOTAL
SPORTS SCIENCES	106	550	656	18	141	159

As shown in Table 2, there are a total of 805 students enrolled in the graduate program in the area of sports sciences as of 2015. 656 of the 805 students are attending programs at the master's level and 159 are attending programs at the doctorate level [14].

Discussion

On the basis of the research conducted recently and the experience acquired in the area of sports training, an inclination has arisen to either reduce the weight of the skill tests or remove these tests completely in the admission of students to schools providing sports training and to install entrance examination systems, where sportive background or national/international successful sportive performances are assessed, instead. In this regard, numerous colleges are gradually also integrating the sportive successes and the successful performances attained in sportive branches, by students who are candidates for admission, into the relevant entrance examination systems. In entrance examinations of many colleges, considerable numbers of additional points are granted to athletes with a national team background or who have attained national/international success in their own branches. In fact, some colleges are holding entrance examinations by using the sportive background and sportive success points in addition to the central examination points and the senior high school cumulative grade points averages, fixed by the council of higher education, alone, without conducting skill tests at all. It is noticed upon examining the sports training policies followed and the student admission systems for institutions providing sports training in different countries, that there is not a standard procedure applied. Analysis of institutions providing sports training in the continents of Europe and America reveals that these institutions admit students on the basis of very different systems [15-19]. While some institutions provide sports training without setting any prerequisites at all, some prefer to admit students on the basis of theoretical examinations measuring sportive skills. The fact that a specific standard could not be established in the world, and similarly in Turkey, leads one to think that, this is due to the advantages and disadvantages the different systems bear and which are unique to each system. Institutions of higher education which fear that examination systems placing greater emphasis on sportive skills alone would include the students, whose academic formations are weak, in the systems, are inclined to increase the weight of the academic performance grade in their examinations. Some higher education institutions however, are applying examination systems that place greater emphasis on sportive skills as they believe that inclusion of only those students whose academic skills are high in the systems would create stress with regard to applying or getting others to apply these sportive aptitudes. Furthermore, some intuitions of higher education believe that student admission on the basis of academic success alone would involve certain drawbacks. Accordingly, the teaching of certain techniques by an instructor through actual demonstration in the field would either be highly difficult or impossible due to the lack of the physical skill required to demonstrate or perform a particular skill by the trainer himself. Although both points of view have advantages and disadvantages of their own, the general tendency is to place academic and sportive aptitudes in a balanced manner within the examination systems for student admission. Although there are different tendencies in Turkey as well, as it is the case in other countries, entrance examination systems aimed at testing sportive skills and academic performances in a balanced manner are applied [4-6]. High numbers of applications are made to higher education institutions providing training in the area of sports every year. In a study carried out, the response, given by %34.5 of the 730 students attending physical education and sports programs, to the question as to why they had preferred this department, was that because it was more active and pleasant [20].

In addition, another reason for the preference is that students who graduate from these programs will have many employment opportunities, is also a widespread opinion. There are nearly 12.000

students who graduate from these colleges in the country every year [12]. Students who graduate from Department of Physical Education and Sports can undertake jobs as instructors at the primary, secondary and higher education institutions, as administrators and trainers within the central and rural organizations of the “Sports General Directorate”, as trainers, monitors and conditioners at universities and sports clubs [3-6]. Students who graduate from the Departments of Sports Management can undertake jobs as managers at different levels in service units that suit their area of specialty within the central and rural organization of the “Sports General Directorate” and in sports clubs and sports establishments, and as administrators in private sports hall establishments, private and public establishments employing more than five hundred workers and civil servants and in the related body of staff of local governments [4-7,20]. Students who graduate from the Department of Recreation can undertake positions as leisure activity and recreation specialists in touristic establishments [5,6,10]. Students who graduate from the “Departments of Exercise and Sports Training for the Handicapped” programs however, can work at rehabilitation centers operating under public and private establishments and perform as trainers for the handicapped athletes [21].

Employment opportunities foreseen for the students who graduate from higher education institutions providing training in the area of sports are working in positions related to sports in the public institutions and private establishments. However, research projects investigating the employment profiles of the students who graduate from the existing programs of the Physical Education and Sports Colleges reveal that there are serious differences between the number of graduates and the number of individuals employed in the sports area. While nearly 12.000 students graduate from Physical Education and Sport Colleges every year, it is observed that the number of individuals employed in the sports sector is quite under these figures. The yearly average of the number of individuals employed in the last five years by government establishments alone is limited to nearly 1.100. Considering the number of graduates that could not be employed within the last fifteen years, it is estimated that 30.000 to 40.00 graduates of higher education institutions providing training and instruction in the area of sports, have been unable to find employment in their areas of specialty. It has been brought up in a considerable number of studies that many students who have encountered employment problems have worked in different sectors other than those in which they had received their training and furthermore, that students who were in their senior years of study were also inclined to take on jobs in sectors other than their own area of training [22,24].

Conclusion

In conclusion, it may be thought that although there are an adequate number of higher education institutions in Turkey, the physical conditions and the number of academic staff are inadequate in certain institutions. It is believed that physical conditions in the training environments and the number of academic staff members per student are related to the quality of training received. Therefore, it may be thought that the improvement of the training and instruction conditions in the present higher education institutions may contribute to raising the quality of training and instruction in the area of sports. It is proposed that, as a result of these improvements, sportive success especially in international competitions may be enhanced by also providing positive support to improved sports policies in the country.

References

- Higher Education System in Turkey. <http://www.yok.gov.tr/en/web/uluslararasi-iliskiler/turkiye-de-yuksekogretim-sistemi> (accessed 17 February 2016)
- List of Universities in Turkey. <http://www.yok.gov.tr/web/guest/universitelerimiz> (accessed 17 February 2016)
- Special Skill Test. <http://osym.gov.tr/dosya/1-28258/h/vuzoss.pdf> (accessed 18 February 2016)
- Çukurova University, School of Physical Education and Sports.
<http://besyo.cu.edu.tr/Dosyalar/OzelYetenekSinavi/2015/2015.Ozel.Yetenek.Sinavi.pdf> (accessed 19 February 2016)
- Marmara University, School of Physical Education and Sports.
http://dosya.marmara.edu.tr/besyo/duyuru_haber_resimler/2015_OYGS/2015_YGS_K_lavuz_Son.pdf (accessed 21 February 2016)
- Ankara University, Faculty of Sport Sciences. <http://sporbilimleri.ankara.edu.tr/files/2015/06/AU-SPORBF-2015-YETENEK-SINAV-KLAVUZU-1-HAZIRAN-2015.pdf> (accessed 21 February 2016)

- <http://dokuman.osym.gov.tr/pdfdokuman/2015/OSYS/OSYS2015YerlestirmeMinMaxTablo-423072015.pdf> (accessed 21 February 2016)
- Hasan Doğan School of Physical Education and Sports, Sport Management Department. <http://besyo.karabuk.edu.tr/index.aspx#> (accessed 21 February 2016)
- Sports Management Department of Faculty of Sport Sciences, Fırat University, Turkey. <http://sb.firat.edu.tr/tr/node/137> (accessed 21 February 2016)
- Sports Management Department of Faculty of Sport Sciences, Kırıkkale University, Turkey. http://besyo.kku.edu.tr/spy_bilgi_paket.php (accessed 22 February 2016)
- Şimşek, H., & Yıldırım, A., (2011). Sosyal Bilimlerde Nitel Araştırma Yöntemleri (Qualitative Research Methods in Social Sciences). S ekin Yayınları, İstanbul.
- OSYM ("Measuring, Selection and Placement Center" in Turkey). Higher Education Programs and Quotas in Turkey. <http://dokuman.osym.gov.tr/pdfdokuman/2015/OSYS/2015-OSYSKONTKILAVUZU01072015.pdf> (accessed 22 February 2016)
- Statistics of Higher Education System in Turkey. https://istatistik.yok.gov.tr/yuksekgretimIstatistikleri/2015/2015_T3_v2.pdf (accessed 22 February 2016)
- The Council of Higher Education (COHE). All Universities in Turkey. <http://www.yok.gov.tr/web/guest/universitelerimiz;jsessionid=D4C5E916840CA0F836A05C3AFC27579F> (accessed 22 February 2016)
- Sports and Recreation Management, Ashford University. <https://schools.collegedegrees.com/forms/ashford-university?lead%5Bprogram%5D=16499> (accessed 22 February 2016)
- Sport Management, Liberty University. <https://schools.collegedegrees.com/forms/liberty-university-online?lead%5Bprogram%5D=16841> (accessed 22 February 2016)
- Dickinson State University. <http://www.dsubluehawks.com/landing/index> (accessed 23 February 2016)
- Deutsche Sporthochschule Köln. <http://www.dshs-koeln.de/english/> (accessed 23 February 2016)
- Faculty of Sport Sciences, Paris-Sud University. <http://www.u-psud.fr/en/university/schools/faculty-of-sport-sciences.html> (accessed 24 February 2016)
- Yıldız S.M., Özdağ S., Yaman Ç (2008). Students' perceptions of the higher education institutions providing physical education and sports education and employment opportunities. *International Journal of Human Sciences*. 5:1
- School of Physical Education And Sports, İnönü University. <https://www.inonu.edu.tr/tr/cms/besyo/hakkinda/> (accessed 24 February 2016)
- Yıldız, S.M., 2006, An Investigation of Educational Supports, Opportunities of Career Development and Job Opportunities After Graduation at Schools of Physical Education and Sports. The 9th International Sports Sciences Congress, Mugla University, Turkey.
- Kılıc M. Physical Education Teachers are waiting for Appointment. <http://www.mebpersonel.com/beden-egitimi-ogretmenleri-atama-bekliyor-makale,961.html>
- Physical Education Teachers waiting for Appointment. <http://www.derszamani.net/brans-bazinda-atama-bekleyen-ogretmen-sayisi.html> (accessed 24 February 2016)

SPORT SECTION

EVALUATION COMMITTEE:

Professor Daniela Aducovschi PhD

Professor Marius Stoica PhD

Professor Ioan Neacșu PhD

Dan George Moise, Cristiana Neagoe

BASIC CONCEPTS ABOUT THE BIOMECHANICAL PRINCIPLES ON TECHNICAL AND TACTICAL PERFORMANCE TENNIS

Cristina Elena Moraru

LEARNING METHODS FOR ACQUIRING RHYTHMIC GYMNASTICS COMPETENCES

Natalia Reaboi

COGNITIVE FORMATION SKILLS TRAINING IN RHYTHMIC GYMNASTICS AT THE INCIPIENT STAGE OF SPORTS PREPARATION FOR CHILDREN 5-6 YEARS

Elena Sabău, Georgeta Niculescu

ATHLETES' NUTRITION

Alina-Mihaela Stoica

STUDY REGARDING THE DYNAMICS OF THE ROMANIAN SWIMMING RESULTS REGISTERED AT THE OLYMPIC GAMES IN THE WOMEN'S 200M BACKSTROKE SAMPLE

Marius Stoica

CONSIDERATION REGARDING THE ORIENTATION OF SELECTION AND PHYSICAL TRAINING IN YOUTH FOOTBALL

Cătălin Șerban, Bogdan Gozu

THE EVOLUTION OF COMPETITIVE PERFORMANCES FOR "10 m AIR RIFLE, MEN", DURING 2009-2012 OLYMPIC CYCLE

Vlad Al. Toma, Eduard Bucălie, Paul Ciolpan, Andreas Banu, Ioana Roman, Emilia F. Grosu,

Alina S. Rusu

AN INTERDISCIPLINARY MODEL FOR THE STUDY OF THE COMPETITION STRESS IN ALPINE SKIING: EMOTIONS, PERCEIVED STRESS AND SALIVARY STRESS HORMONES

BASIC CONCEPTS ABOUT THE BIOMECHANICAL PRINCIPLES ON TEHNICAL AND TACTICAL PERFORMANCE TENNIS

Noțiuni de bază cu privire la aplicațiile principiilor biomecanicii la tehnica și tactica tenisului de performanță

DAN GEORGE MOISE^{1, a*}, CRISTIANA NEAGOE²

^{1,2} *University of Bucharest, Romania*

Corresponding author: moisegeorgedan1971@yahoo.com

Abstract

Biomechanics its provisions by exact science, addresses the precise measure of the complexity of head movement and function throughout the body, which emphasize optimal capitalization of the geometry of the playing surface, with openings angles of attack (offensive) and use them to increase travel distances by the opponent, in a timely manner as for kicking the ball away.

Applying the principles of biomechanics in tactics and physical preparation technique helps to identify and get the most dominant genetic skills, the talent and those accumulated in the training and official game.

This paper is considered as a true research study or a collection of information in the field of biomechanics, plus the extension study specialist, harmoniously complete the development of several experimental scientific researches conducted us across several generations of children, juniors and seniors in the areas of performance and recordings from official during workouts and games.

Mechanisms activity neuromuscular specific diversity of techniques and forms of field trips are provided by movements of great complexity that is because the skeleton and joints of the body forming couples, instant muscular cinematic mobility, which allow different freedom degrees.

Keywords: biomechanics, skills, diversity of techniques, performance, workouts and games, technical or tactical game.

Introduction

The issue of training and competitive play in tennis performance permanently stood in attention of specialist and technicians in the field. While tennis joined other scientific fields, among which the outstanding contribution of biomechanics, with major implications for improving performance the dynamic performance of the segment body training and effective use of force-velocity vectors in the complex forms of travel in the field and hitting the ball define their timeliness and motivation.

This paper is considered as a true research study or a collection of information in the field of biomechanics, plus the extension study specialist, harmoniously complete the development of several experimental scientific researches conducted us across several generations of children, juniors and seniors in the areas of performance and recordings from official during workouts and games.

For improving arsenal technical of the game of tennis has become a necessity knowledge and applications principles of biomechanics to the structure and functionality of techniques or processes preparative (plugs, position, shape, placement on the ball and replacement field) and eight techniques Basic.

For starters, we need to say with certainty that the application of the principles of biomechanics technique tennis game has been and remains fundamental scientific way of training mechanisms to object hitting the ball in tennis.

Content. Actuality. Hypotheses

The main meaning of knowledge and applying principles in tennis technique and tactics, as stated Richard Schonborn (2011), which considered equally technique and tactics and the entire system of physical training and biomechanics applications that specialized means.

These reasons of great importance to scientific training and game performance of official targets, among others, some of the principles of biomechanics, which describes in sport in general and in this case in court. A.Sogea (2006) is known in scientific research published a number of main biomechanics, as follows:

A first principle of biomechanics refers to the fact that this Order structure and dynamics technique of play, issues the smooth functioning of the body segments coordinates and directions specified where it aims low power consumption muscle and maximum experience of the art game.

Another principle of biomechanics refers to dynamic mechanisms of technology and theories of play, spectator and physical preparation, all grades dead, which offers a beach complex and targeted to specific movements for virtues areas dynamic effort and identification and avoidance of errors of execution.

Biomechanics its provisions by exact science, addresses the precise measure of the complexity of head movement and function throughout the body, which emphasize optimal capitalization of the geometry of the playing surface, with openings angles of attack (offensive) and use them to increase travel distances by the opponent, in a timely manner as for kicking the ball away.

Applying the principles of biomechanics in tactics and physical preparation technique helps to identify and get the most dominant genetic skills, the talent and those accumulated in the pregame and official game.

Harnessing scientific works in the field of biomechanics, we help to remove empiricism practice without object, removal or capping tennis players with real opportunities for performance, and on the other to find ways easy to make the technique and tactic to have dynamism, constant precision, and addressability, rational and individual character.

The present research on the application of the principles of biomechanics aims to emphasize the philosophical sense of the tallest about movement, which in the present moment there is not a novelty, though putting it out as an attribute of mechanics with multiple stages in dynamic lifting methodology in actual performance. Moving in tennis involve are: the skeleton, joints, muscles and the whole physiology of the body that respond to physical and mental efforts, the individual features of the tennis player, referring in particular to the specific effort of modern tennis.

Mechanisms for practicing the technique and tactics with the particularities of the eight methods of play and tactics with four phases (phase gaming fix, rally alternatives rally decisively and rally the land), offers a wound complex and to the point of application of biomechanical principles for identifying and highlighting the areas of travel and hitting the ball as effectively.

The principle helps us capitalize biomechanics technique and tactics with high efficiency over the entire geometry of the playing highlights the complexity of movement in land displacement and technical specific targeting in diagonal ball over the net, long line or median, and player placement on biostructure angle formed by the opponent the opportunity to open up and exploit areas of achievement perimeter game.

Another principle other biomechanics refers to the rules for applying the technique of the game, to be effective, it requires automatism technical processes specific game, have unique character, rationality, adaptability size and virtues peculiarity biological, psychical and performant experience.

Biomechanical principles aimed among other things, issues of space, time, movement and types of exercise, such as muscular effort, static, dynamic, active, passive, concentric and eccentric contractions nature aspects which add ballistic trajectory.

Also these biomechanical principles a series of moves aimed at simple or complex amplitude joints: pronation and supination movements, flexion, extension, internal and external rotation, acceleration and deceleration.

It mentioned that all these forms of movement are composed and diversifies muscle groups or chains that ultimately ensure the success of simple or complex actions of proportion and hitting the ball. D.D. Donskoi (1959) believes the principles of biomechanics as a major source of quality improvement exercise, theory and practice of sport performance, as follows: the study and application of the principles of biomechanics reveal the development aspect of the practice of effective practice; evaluation study modern technology as required by the principles of biomechanics leads to generalization and fundamental functioning. Biomechanical theory with its application leads to functional study of body cues; principles of biomechanics in sport applications and enrich leading anatomy and physiology, morphology musculoskeletal creating ties with the dynamic functioning of nerve-making processes.

Biomechanical principles known and applied correctly in sport in general and in this case in tennis, help us in the selection and exploitation techniques of modern game improvement performance and correct selection of the system of specialized means, both technical, tactical and physical training, general and specific.

All mechanical tennis specific movements are highlighted by the principles of biomechanics, such as gripping movements, hitting movements, throwing and impulse, translational, depreciation, balancing and rebalancing.

R. Schonborn (2011) brings to our attention a number of current research data and tennis specific, stating these principles of biomechanics:

- Principle of initial force, with reference to muscle elongation motor before performing the act, where it may shrink.
- Principal corresponding reaction time of contact refers to the racket (stringing) with a game ball or fall ball bounce on the ground and grow.
- Temporal pulse and partial coordination principle, which refers to the striking force (space and time) and acceleration of body segments of hitting the ball in the end.
- The principle of principal moment conservation, referring to the impact of racket-ball, demanding the moment as the ball hit to change its original state, gaining specific directions and speeds.
- The principle of optimal route, describing the action of hitting the ball in the final phase of the action wrist racket, checks all the techniques of the game, besides the arrest technique.

Presenting in detail the principles of biomechanics with major implications in technical playing tennis, developed by the three authors mentioned, were the subject of this paper, which can add our modest contribution to, reconsideration and updating these principles to technical game, modern practiced at sea level performing application of the principles of biomechanics in tennis have a fundamental role in conducting competitions sport, being an adjunct earnest tactics, which can be fixed requirements and specific rules based on nervous activity superior biomechanics and biology of the sense of offensive achieve maximum efficiency in game actions.

In the following we present the most obvious features of modern technology, biomechanics applications due to the structure and functioning of the mechanism of hitting the ball. Technical tennis game has evolved constantly from one generation to another great champions, which led to the emergence of new technical options to increase efficiency in official games, following the application of biomechanics in preparing tennis player.

Technical or tactical game of tennis has gone longer attention sciences of biomechanics, physics, anatomy, biology and methodology advanced by laboratory studies and field, aiming at high levels of muscular and articular capacity the tennis player, who adds opportunities on the strength and speed of preparation and kicking the ball away.

Technical and tactical tennis game has two basic components namely athletic component, which has contained all forms of preparation (start, run and stop) and specific component of the eight technical processes with tactical content on the four phases of the game.

Next, we will present the main identifying characteristics of the current game:

1. Accelerate racket in the game of hitting the ball.
2. Hitting the ball bounce preceded the lateral coup;
3. Hitting the ball with the specific effects (flat-lift, cut-side-topspin and flat).
4. Modern ballistics trajectory ball tactics depending on conditions and the game adversity, the playing surface defining a problem in the game of tennis.
5. Ability high concentration and positive reaction in conditions of adversity in official games, the whole dynamic unfolded in the game (travel and hitting the ball) with temporal control exceptional performed during and after kicking the ball away.
6. Increased ability to adapt and readapt body segment achieved through an automatic gesture, accompanied by superior physical effort, which marks the offensive game without defensive moments.

Biomechanical studies of physics, biology and superior training methodology performed by teams of experts having led to the great champions, become real models of maturity and mindset of professionals in the sphere of performance in tennis, and tennis players: R. Federer, N. Djokovic, R. Nadal, A. Murray, M. Raonic, D. Federer.

Mechanics of hitting the tennis ball in detrone the fore the role of trunk rotation, correct and timely placement, control racquet tip, the strong momentum at lower segment etc.

Efficient use of all the moments of hair balls in the field and return of the ball in the opponent's court on favorable terms in their own, as a condition of permanent control over the geometry of the court (the line behind the field, middle and fillets).

Gestures entire field of great champions, to prove the availability of superior risk-taking effort to overcome the difficulties of their own physical, mental, physiological and stakes of the game.

Conclusions

Identification, knowledge and applications of biomechanics in tennis performance even at lower levels is the way scientific preparation, the consolidation of data principles of biomechanics at the structure and functioning mechanisms of movement and hitting the ball, meaning submission vectors of strength-speed sequencing body segments in specific actions.

Tennis coaches and technicians would be needed to enrich their knowledge of functional anatomy and to deepen their data on the biomechanical principles that help them to widen the field of technical information.

There can be coach, technician or physical coach in tennis without knowing the diversity of forms of movement of the human body and the specific mechanisms of hitting the ball with maximum efficiency.

Thorough knowledge about the game of tennis biomechanics technique opens the door to understanding and other essential disciplines such as functional anatomy, physiology, biochemistry and medical physics effort.

Mechanisms activity neuromuscular specific diversity of techniques and forms of field trips are provided by movements of great complexity that is because the skeleton and joints of the body forming couples Instant muscular cinematic phones, which to allow different degrees of freedom.

All the information given by specialized technicians tennis tournament in the process of preparing for official games, have given rise to great personalities who devote every effort to personal prestige and superior performance.

Bibliography

- ANTONESCU, D., MOISE, D. G., (1993), *Basic principles of the art of the game of tennis*, ANEFS Magazine No. 2.
- BACIU C., (1967), *Functional anatomy of the musculoskeletal system*, CNEFS Edition.
- BARBIERI, R., (1992), *Il's tennis pair*, Colderini Edizioni, S.R.L.
- DAVE, M., (2005), *Advanced Coaches Manual'*, it I.T.F.
- DONOKOI, D.D., (1959), *Exercise biomechanics*, Youth Publishing House, C.F.S.
- EPURAN, M., (1990), *Shaping sporting behavior*, Publisher Oltenia.
- GAGEA, A., (2002), *Biomechanics theoretical*, Publisher Gorgean.
- GAGEA, A., (2006), *Biomechanics analytical*, Publishing Gorgean
- ILIESCU, A., et al, (1968), *Exercise biomechanics*, Publishing CNEFS.
- MOISE, D. G., (2002), *Theory of modern tennis*, Yes Publisher, vol. I.
- MOISE, D. G., (2002), *Theory of modern tennis*, Yes Publisher, vol. II.
- MOISE, D. G., (2006), *The role in the category of specialized training in tennis performance*, Journal Discobolul ANEFS.
- MOISE, D. G., (2008), *Study on anatomical and functional structures, with implications for physical training, technical and tactical level segments of prime importance to hit the ball in tennis performance*, Brochure Scientific Session, Cluj-Napoca.
- MOISE, D. G., (2008), *Contributions to the implementation of scientific and methodological characteristics, priorities and current trends in modern training and game official and high-performance tennis"*, International Conference Brochure Sports, Chişinău.

LEARNING METHODS FOR ACQUIRING RHYTHMIC GYMNASTICS COMPETENCES

Metode de învățare pentru însușirea unor competențe specifice gimnasticii ritmice

CRISTINA ELENA MORARU¹

¹"Alexandru Ioan Cuza" University of Iasi

gimcristinamoraru@yahoo.com

Abstract

Background. The objectives of physical education and sport in school can be attained by understanding and assessing the contents of rhythmic gymnastics in all its dimensions. Teachers, coaches, researchers and students make up a group of competent persons who contribute, through their professionalism, to the development of this sports branch. This paper focuses on a didactic approach to rhythmic gymnastics and on highlighting the competences that students can acquire practicing it.

The purpose of this paper is to outline several learning methods, based on passing from "acting" to "knowing how to act" in concrete situations. In this sense, we aim to grant students the occasion to create and elaborate their own solutions, thus becoming the initiator of their artistic transformations.

Material and method. The approach to technical and artistic dialectics, the learning methods and the competences outlines concern acting upon the manner of acquiring rhythmic gymnastics contents and of formulating operational solutions.

Conclusions. The paper proposes – to both teachers and coaches – reference points and learning methods necessary for practicing rhythmic gymnastics. The objective of learning the contents of this discipline in school is to enable the passage from previous motor skills to new abilities, because this passage should be performed considering the resources and rhythm of each student. In order to acquire these competences, teachers must provide a favourable environment for students, which favours their achievements.

Keywords: learning, methods, competences, sport.

Background

Rhythmic gymnastics is an artistic and aesthetic discipline that requires a particular training process. The practice of female gymnasts involves specific theoretical and practical knowledge (Bobo-Arce M., Méndez-Rial B., 2013). This sports branch became increasingly popular worldwide with its inclusion in the 1984 Olympic Games in Los Angeles. Rhythmic gymnastics is based on precision, grace, originality and coordination. It combines the movements of dance with the use of five small hand apparatuses: hoop, ball, clubs, ribbon and rope (Zetaruk M. *et al.*, 2006).

Rhythmic gymnastics is a gymnic and artistic activity definable as the interaction between bodily movement and manipulation of hand apparatuses. It is performed individually or in a group setting, within a defined space and a music-limited amount of time. Naturally, the synchronization of tempo with movement or the concordance between movement and music does not represent the only criterion in the assessment of artistic aspects within rhythmic gymnastics, because choreographic creativity plays an equally important role (Rumba O., 2013). Each sport has specific requirements, helping athletes achieve performances, if these requirements are met. In rhythmic gymnastics, young gymnasts must develop physical components such as flexibility, balance, speed, strength, endurance, as well as artistic components such as elegance of movements, postural sense, etc. (Rumba O., 2013). However, unlike many other artistic sports, rhythmic gymnastics is an event that includes the challenge of presenting the difficulties of technical movements such as turns and pirouettes, while handling apparatuses, following a specific rhythm and music (Loo Fung C, Loo Fung Y., 2012). Rhythmic gymnastics is a means of training students on many levels, and the learning methods we propose do not focus only on conveying gestural techniques. In this paper, we aim to develop the idea of a learning system organized around and technical and artistic dialectics.

Teaching rhythmic gymnastics in school determined us to appraise that the essential motivation of students is to create and bring along their own solutions. The initial attribution made by

students to the act is artistic: they want to deliver a beautiful, spectacular and unexpected routine. Before becoming technical, their project is essentially choreographic. In school or in sporting clubs or associations, this activity must lead to a progress, thus allowing the students to express themselves in different manners.

Technique specific to rhythmic gymnastics

Pierre Parlebas defines rhythmic gymnastics as the system of judicious features of a motor situation and of consequences it entails in the execution of a corresponding motor action (Parlebas P., 1987).

In the practice of this discipline, students must benefit from double dynamics, because they use their body while handling the apparatus. According to the Code of Points, technical body movements are accepted only if they are performed in concordance with apparatus handling, which requires a more complex and demanding process from female gymnasts (Ávila-Carvalho L., Klentrou P, Lebre E, 2014).

Therefore, students must be skilled enough not to lose the apparatus and to always be set on the “meeting” between body and apparatus. The purpose is to enchant the viewers with an aesthetic, virtuous and original routine. Thus, we discover the specificity of this discipline, by viewing it as an expressive project aiming to trigger an emotion. This art of the composition/execution couple is achievable by integrating the actuating principles of body technique and apparatus technique (continuity, amplitude, rhythmicity, apparatus hold) which lead to a harmony called concordance between body and apparatus.

It is well known that female gymnasts have a firm control of their body and that this aspect is reflected in efficient regulation and postural adaptation (Lavalée D, Robinson H.K., 2007). They seem to depend on a multimodal perception (Gautier G, Thouvarecq R, Larue J., 2008). Female gymnasts are able to use various sources of information to regulate or adjust their posture. A series of studies report that female gymnasts are able to use the remaining sensory modalities to compensate for the lack of vision in unstable postures (Vuillerme N. *et al.* 2001). These characteristics are useful to gymnasts, because their routines are difficult, reason for which they need optimal body control.

Scientific literature shows that rhythmic gymnastics has recorded a growing number of athletes; this lead to an increase in the number of studies based on anthropometric measurements, motor abilities and visual-motor skills as performance predictor for this sport (Di Cagno A. *et al.*, 2009).

In rhythmic gymnastics, body technique and apparatus-handling technique are defined by two directions: elaborating and then executing technical elements. The performing students set in motion the apparatus in space by using various coordination movements, because they must assume the performance before their peers. The observing students learn to analyze and assess an execution in order to improve it. In addition, students learn to appraise objectively an execution in order to classify it; such students act as referees. Hence, in order to propose learning methods for an activity, it is necessary to conduct a preliminary analysis for determining the bases of specific technique and of the resources required. (Table 1)

Table 1. *Technique specific to rhythmic gymnastics in correlation with the resources demanded*

Technique in rhythmic gymnastics	Resources demanded
<ul style="list-style-type: none"> - concordance between body movements and music; - execution of specific coordination and complex coordination performed individually or in group; - general and specific skills; 	<i>Bio-informational</i> Tactile, visual, kinaesthetic, auditory
<ul style="list-style-type: none"> - control of force and speed; - control of vertical axis and alignment of segments; - actuation and handling of apparatus; 	<i>Biomechanical</i>
<ul style="list-style-type: none"> - creating, imagining, organizing individual and collective space; - combining the elements; - reflecting upon the cause/effect relationship; 	<i>Cognitive and mental</i>
<ul style="list-style-type: none"> • assuming the performance (individual or in group); • assuming physical appearance; • expressing, understanding and co-operating; 	<i>Affective and relational</i>
<ul style="list-style-type: none"> - observing the performance of others: to appraise, improve, criticize; to classify, arbitrate and ascribe a value. 	<i>Cognitive and affective</i>

In the current context of physical education and sport programs, it would be wise not to consider rhythmic gymnastics as belonging exclusively to gymnastic activities, but as pertaining to artistic activities, too.

Material and methods

Learning methods for rhythmic gymnastics contents

The objective of learning is to help students go beyond their knowledge and possibilities in order to develop new competences. To make them progress, teachers must provide new possibilities of transforming the real. These possibilities are based on personal resources and they are elaborated considering the individuals' rhythm and strategy. The teacher's responsibility is to offer a rich and varied teaching environment for each student to progress.

The methods outlined below are not exclusive but they show the multitude of learning situations that a teacher may provide. Hence, individual or collective learning methods may include *situations with obstacles* (imitation, repetition, practice, improvisation, discovery, play) or *authentic situations*.

An authentic situation is one where the student must present a certain segment of the routine before his/her peers. This situation is usually a demonstration, because it represents the outcome of rehearsals. Therefore, it should be included in each lesson and it should be paid due attention.

Authentic situation is different from the situation of reference because it cannot be objective in an activity such as rhythmic gymnastics, in the sense that one cannot compare the first to the last lesson. It constitutes the outcome of successive progress throughout lessons: students learn and they progress; thus, authentic situations may evolve.

The situation of reference is a stability instance that can bear comparison and that can mark the progress achieved. In this sense, it is better to use work tasks that include an obstacle for students; thus, the others become a support to stabilize the students' acquisitions. Because they create premises for self-overcoming and they involve students in a personal strategy of constructing a unique response, tasks that include an obstacle are favourable to the elaboration of new acquisitions. This aspect is organized around the idea that students must follow a personal project, with a focus on the artistic side. Students begin such task with a purpose in mind and they try to attain it by searching for a solution adapted to their resources. Technical solutions become an indispensable support for finishing an artistic project. In this sense, we develop a technical-artistic dialectics.

In an activity like rhythmic gymnastics, which combines technical artistry with artistic project, technical and artistic aspects stimulate each other. However, in order to progress, artistic support must become a priority. Students understand technique when they need it. They understand its needs and principles and they are able to transfer them. In real life, a task makes more sense to students when it has a choreographic purpose than when it has a technical purpose. Their project comes to life when they have to show it to spectators. However, in order to progress, students need to oscillate between these two parameters: technical and artistic.

When an obstacle arises, students must now how to choose the best solution to finish the action. These are the interruptions (the ribbon gets stuck, they let the hoop slip, etc) that determine students to find a way out. This passage required by the relationship dynamic between body and apparatus allow students to get the occasion to act in the right way. The organizing principle of practical action emerges only when subjects need it. Only in such instances do students ask questions and make decisions. The certainty of one solution leads students to knowing how to act.

Within this learning strategy, teachers are initiators of the learning method, observers of students' activity and guides for the success plan. However, progresses do not depend only of the students' characteristics, but also on the opportunities and facilitations provided along the way. This is why we need good teachers, proper training spaces and persons who support students to becoming their best (Louer L, Elferink-Gemser M, Visscher C., 2011). Therefore, learning the rhythmic gymnastics contents means acknowledging the possibilities of students, their creativity in handling an apparatus or in their relationships with working partners, their possibilities of mobilizing their bodies and the way in which they observe the particularities of music background.

In conclusion, if learning means being the actors of their own transformations along a personalized path, we posit the idea that students are the object and the subject of their initiation concomitantly. They are possessors of their possibilities, creators of their knowledge and, in rhythmic gymnastics, technicians, choreographers and interpreters of their performances.

Competences specific to rhythmic gymnastics

In order to approach the issue of learning contents in rhythmic gymnastics, we must formulate the competences and define the activity we involve the student in and the methods used by teachers.

According to Guy Le Boterf, competence is defined as the mobilization and activation of several notions within a given context and situation. It is the “science of moving”, which requires theoretical knowledge and abilities (Le Boterf G., 2008).

It is organized around general competences (cognitive, attitudinal and methodological), group competences (technique specific to rhythmic gymnastics, choreographic design, relation with music) and specific competences (handling the apparatus).

The science of moving in rhythmic gymnastics has the following meaning:

- mastering the movements of an apparatus using your own body: the in motion the apparatus, setting in motion the body, coordinating apparatus and body actuation;
- elaborating a sequence of choreographic elements: combining individual elements (body and apparatus handling technique), combining elements with one or several students (structures designed depending on the logic of combining action and on choreographic logic), coordinating these elements with music, triggering various types of emotions (aesthetic, mental);
- presenting a choreographic project meant to mesmerize spectators;
- observing an individual or collective performance, by modifying the product in such a way as to include several choreographic effects and to be ascribed an objective value (by referees).

Students – gymnasts or observers, alternatively – will manage to acquire such knowledge gradually. Determining students to assimilate these competences involves introducing them within an activity where they are the authors and actors of their own transformations.

Discussions

In the past few years, the teaching of contents specific to physical educations has made the object of research focusing on two scientific programs. One, in North America, concerned primarily with pedagogical content knowledge; the other, in France, studies the didactics of physical education. Researchers in both fields have reached a consensus regarding the following: contents are domain-specific to the activity being taught; they fall within an analysis of the situated-action; they undergo long-term evolution in connection with professional competence; and they depend on constraints inherent in the system (Amade-Escot C., 2000). Certain specialists in the field posit that each student arrives to school with certain competences; the purpose is to stimulate students to develop these competences, not to teach competences that are of less interest for students. We have to assess what the student learns, and not what has to be learned. The personal interest of students should guide assessment; hence, each student should be able to get a certificate/diploma based on his or her competencies. Assessment thus has to be very personalized (Baartman L., 2007).

Physical education and sport comprise various approaches to learning or acquiring a new motor skill. For instance, a learner can generate a best approximation of the correct action and evaluate its effectiveness through outcome feedback in an attempt to discover the correct decision/movement. Alternatively, a learner can be guided to the correct movement via instruction from a coach, for example. Discovery, guidance and other ways of practicing movement skills will lead to different levels of performance (Raab M., 2009).

Conclusions

Discovery learning is believed to be an effective method for learning motor and cognitive skills, but the mechanisms leading to improvements are not that well understood in the context of real-life decisions in sports. There is no agreement on whether implicit or explicit learning processes underlie discovery learning. Hence, we need to better understand the mechanisms that underlie discovery learning and the conditions under which discovery instructions perform well or poorly.

Based on the state of the art, it seems warranted to pay more attention to the kind of instructions given, because a number of research fields have demonstrated that small changes in instruction can change the focus of attention, the amount of cognitive processing and the contributions from implicit and explicit processes that discovery learning relies on (Wulf G., 2007; Poolton, J.M, *et. al.*, 2006).

As a general conclusion, it can be stated that the objective of learning is to ensure the passage from previous possibilities to new possibilities; this passage is done depending on the resources of each student and on individual rhythm.

Students are not required to make a gesture per se, but they must understand how to perform it, why they succeed or why they fail. To allow such passages, it is mandatory for the teacher to provide students with a favourable didactic environment, by using the most effective means and methods.

References

- BOBO-ARCE, M., & MÉNDEZ-RIAL B., (2013), *Determinants of competitive performance in rhythmic gymnastics. A review*. Journal of human sport & exercise, 8(3): 711.
- ZETARUK, M., VIOLAN, M., ZURAKOWSKI, D., MITCHELL, W., & MICHELI L., (2006), *Injuries and training recommendations in elite rhythmic gymnastics*. Apunts. Medicina De L'esport, 151: 100-106.
- RUMBA, O., (2013) *Improving the quality of the rhythmic female gymnasts' feet performance by the means of traditional choreography*. Science of Gymnastics Journal, 5(3): 19-29.
- LOO FUNG, C., & LOO FUNG, Y., (2012), *Importance of Music Learning and Musicality in Rhythmic Gymnastics*. Procedia - Social and Behavioral Sciences. 46: 3202-3208.
- PARLEBAS, P., (1987), *Contribution à un lexique commenté en sciences de l'action motrice*. Paris: Publications INSEP.
- ÁVILA-CARVALHO, L., KLENTROU, P., & LEBRE E., (2014), *Handling, throws, catches and collaborations in elite group rhythmic gymnastics*. Science of Gymnastics Journal, 4(3): 37- 47.
- LAVALLEE, D., & ROBINSON H. K., (2007), *In pursuit of an identity: A qualitative exploration of retirement from women's artistic gymnastics*. Psychology of Sport and Exercise, 8(1): 119-141.
- GAUTIER, G., THOUVARECQ, R., & LARUE, J., (2008), *Influence of experience on postural control: Effect of expertise in gymnastics*. Journal of Motor Behavior, 40(5): 400-408.
- VUILLERME, N., et al., (2001), *The effect of expertise in gymnastics on postural control*. Neuroscience Letters - Procedia Elsevier, 303(2): 83-86.
- Di CAGNO, A., et al., (2009), *Factors influencing performance of competitive and amateur rhythmic gymnastics-Gender differences*. Journal of Science and Medicine in Sport, 12(3): 411-416.
- LOUER, L., ELFERINK-GEMSER, M., & VISSCHER, C., (2011), *The perfect elite gymnast, does he exist? A systematic review*. Annals of research in sport and physical activity, 3: 42- 59.
- Le BOTERF, G., (2008), *Repenser la compétence*. Paris: Eyrolles, 15 p.
- AMADE-ESCOT, C., (2000), *The contribution of two research programs on teaching content: "Pedagogical Content Knowledge" and "Didactics of Physical Education"*. Journal of Teaching Physical Education, 20(1): 78-101.
- BAARTMAN, L., et al., (2007), *Teachers' opinions on quality criteria for competency assessment programs, teaching and teacher education*, 23(6): 857-867.
- RAAB, M., et. al., (2009), *Discovery learning in sports: implicit or explicit processes?* International Journal of Sport and Exercise Psychology, 7(4): 413-430.
- WULF, G., (2007), *Attentional focus and motor learning: a review of 10 years of research*. E - Journal Bewegung und Training: 1-11.
- POOLTON, J.M., MAXWELL, J.P., MASTERS, R.S., & RAAB, M., (2006), *Benefits of an external focus of attention: Common coding or conscious processing?* Journal of Sports Sciences, 24(1): 89-99.

COGNITIVE FORMATION SKILLS TRAINING IN RHYTHMIC GYMNASTICS AT THE INCIPIENT STAGE OF SPORTS PREPARATION FOR CHILDREN 5-6 YEARS

Formarea competențelor cognitive în gimnastica ritmică la etapa incipientă de pregătire sportivă a copiilor de 5-6 ani

NATALIA REABOI

State University of Physical Education and Sport, Chisinau, Moldova

e-mail: borisrisneac@yahoo.com

Abstract

Formation of artistic knowledge at the initial stage of sports preparation is a complex among which is part of cognitive skills: language interpretation, the identification movements and capabilities creative application of knowledge in children of 5-6 years in rhythmic gymnastics.

Key words: capacity, knowledge, skills, skills training, cognitive skills, sports training, children 5-6 year's rhythmic gymnastics.

The actuality

Contemporary sport is characterized by a rigorous dosing volume and intensity of exercise and by early specialization. Rhythmic gymnastics sport belongs to the category which highlights these modern trends [4,5,6,7]. Jurisdiction of a gymnast covers his training and the results demonstrated in a competition in terms of continuity. These participatory activities of competence causes gymnast wants to learn be able to operationalize and be active participants in their own development.

Cognitive skills training represents the products of knowledge obtained during the athlete's training. Knowledge as a product of the process of knowledge, is an intelligent tool for children who are functioning in different situations

At this stage, formed and developed At this stage, formed and developed body schema, expressing representation about own body gymnast gymnastics and serves as a landmark space in the simplest movements and self-image. It outlines recognition control and organization skills. Reasoning appears as a form of thought and mental act that thinking, from a series of data knowledge, acquires new knowledge of them [8].

The theory of Russian psychologist P. J. Galperin, action learning consists of two components: *indicative and effectors* [2, p. 169]. *Indicative* component represents an early stage in competitive activity. *Effectors* component is the activity under the command of the central nervous system to external stimuli [1, p.331], the following steps are considered, however, and levels of artistic achievement capabilities:

- step materialize, materialize, which consists of familiarization with objects gymnasts – gymnastics rope, ball, circle, with action to be implemented. This step marks the generalization based on concrete sensory elements absolutely necessary for carrying out the action, developing visual-spatial power. Young gymnasts get acquainted with elements of artistic forms and develop their artistic image.

- training stage operations of verbal expression, language active and in writing, in terms of representation shares learned and assessing the degree of appropriation for research purposes of any difficulties of application on whether to express quickly, accurately and subtly pronounced minutes of rhythmic gymnastics terminology. Didactic training tasks are performed communicative competence verbal / linguistic ability to speak, communicate and write correctly.

- step integration structure of elementary operations involved in artistic compositions, already consolidated at the level of a dynamic stereotype, to incorporate elements artistic image and presentation incipient artistic image.

- step systematization of action based on the overall purpose and type of activity sports training is performed regulation and self-regulation of behavior to know, know, understand, perceive, learn exercises, to discover and to think in terms of developing artistic compositions elementary rhythmic gymnastics based on studying symbols, so developing logical-mathematical competence of their use, including knowledge of methods of transmitting knowledge formats, informative and formative.

- step action automation integration and assimilation perfecting her more subtle and complex adaptive sports training dimensions, with its selective and structural aspects.

Gymnasts get also information on technical execution and artistic difficulties. Preliminary representation is made as to pregnancy. The purpose of learning is the fact that small age gymnasts to be able to know understand and analyze the concepts and phenomena drawn by peeling the support points and the conditions for solving them.

The object of research is the educational process cognitive skills training in rhythmic gymnastics at the age of 5-6 years.

The research hypothesis It was surmised that the development and practical application of the methodology of training cognitive skills in children 5-6 years of training lesson will essentially contribute to the continuity of the level of sports training.

Purpose of research is to improve and implement research methodology cognitive skills training in rhythmic gymnastics incipient sports training.

Objectives of research:

1. Studying theory and practice incipient sports training for children of 5-6 years.
2. Analysis of the concept of knowledge in psycho pedagogical competence formation incipient sports training.
3. Develop a methodology and rationale cognitive skills training in rhythmic gymnastics incipient sports training.

The methods used in pedagogical research. For research tasks following scientific methods were used: theoretical analysis and generalization of literature data; accounting and control in sport training; teaching observation; **Survey Quiz**; tabular method; teaching experiment; mathematical and statistical methods of processing and interpretation of data recorded.

As the research in question aims to increase efficiency in the educational process training lesson from the level of training in rhythmic gymnastics early in the course of the academic year 2014-2015 pedagogical experiment was conducted at Sports School of Olympic Reserve mun. Chişinău.

Gymnasts are familiar with the task of learning model gymnast, behavior, clothing, specific description of the elements of rhythmic gymnastics artistic symbols and actions basic classical ballet and processuality them acquire specific terms.

In the experiment, we decided to check the cognitive component of image elements artistic gymnasts 5-6 years. Knowledge assessment criteria used in the evaluation was carried small gymnasts form of rhythmic gymnastics specific questions by analyzing responses of experts to several questions that are presented in Table 1. These assessment gymnasts 5-6 years aimed at acquiring a higher level of the penalties provided for artistic execution.

In the research, the experimental group received 5-6 mild cognitive tasks to be solved so that representation, as well as difficult experiments in the form of verbal messages, written and practical. At the same time, it was appropriate to limit as much as possible the influence of external factors in order to measure, evaluate and objectively interpret the action as on the success of the experimental - cognitive competence.

Cognitive performance achieved by gymnasts aged 5-6 in the final examinations for solving the tasks of general and special knowledge in the two experimental situations are presented in Table 1.

Table 1. Share of cognitive behavioral performance of the experimental group 5-6 years (n = 8)

Nr. crt.	Evaluation criteria	The degree of readiness									Maxim %	Rang
		n/%	N o t e									
			5 level sufficient	6	7	8	9	10 high level				
1	Representation	n	-	1	4	2	1	-	-	50,00	I	
<i>1.1</i>	Describe sports rhythmic gymnastics.	%	-	12,50	50,00	25,00	12,50	-	-			
<i>1.2</i>	Describes and explains the choice of equipment suitable for training.	n	-	-	3	3	2	-	-	37,50	II	
		%	-	-	37,50	37,50	25,00	-	-			
<i>1.3</i>	Recognize portable objects with symbols and appropriate clothing	n	-	1	1	4	2	-	-	50,00	I	
		%	-	12,50	12,50	50,00	25,00	-	-			
<i>1.4</i>	Enumerates 4 positions of the arms of classical ballet.	n	-	-	1	3	4	-	-	50,00	I	
		%	-	-	12,50	37,50	50,00	-	-			
<i>1.5</i>	Enumerates 6 positions of classical ballet leg.	n	-	1	2	1	4	-	-	50,00	I	
		%	-	12,50	25,00	12,50	50,00	-	-			
<i>1.6</i>	Demonstrate competences in relation contest exercises.	n	-	1	4	2	1	-	-	50,00	I	
		%	-	12,50	50,00	25,00	12,50	-	-			
<i>1.7</i>	Names taken from classical ballet exercises.	n	-	-	1	4	2	1	-	50,00	I	
		%	-	-	12,50	50,00	25,00	12,50	-			
2	Must to shows the movement of classical ballet positions arms.	n	-	-	1	3	3	1	-	37,50	II	
		%	-	-	12,50	37,50	37,50	12,50	-			
3	Must to shows the movement of classical ballet positions legs.	n	-	-	-	2	3	3	-	37,50	II	
		%	-	-	-	25,00	37,50	37,50	-			
4	Name and show 2-3 elements of classical ballet	n	-	-	1	4	3	-	-	50,00	I	
		%	-	-	12,50	50,00	37,50	-	-			
5	Describe in writing the main symbols of artistic composition.	n	-	2	2	3	1	-	-	37,50	II	
		%	-	25,00	25,00	37,50	12,50	-	-			
-X notes (knowledge)						8,045 points						

To achieve learning outcomes assessment, was developed and used a rigorous scale, the notes express sufficient levels 5-6 7-8 - 9-10 and an average level - a high level of performance. The results obtained under control conditions were recorded in absolute and percentage.

The marks obtained by gymnasts 5-6 years reflect an average level, are grades 7-8 (Figure 1).

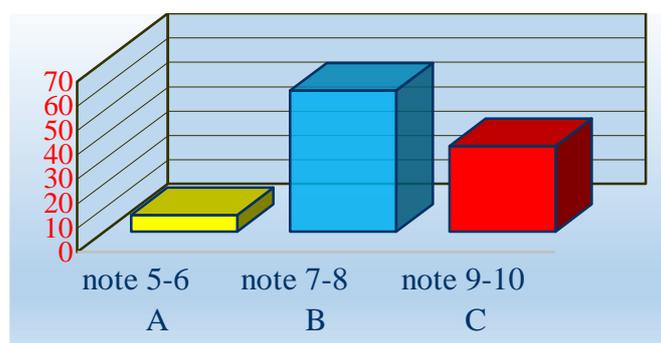


Fig. 1. Levels of cognitive skills of the gymnasts 5-6 years.
A - sufficient; B - medium; C - High Level

Notes ten obtained 5.68% of the total number of gymnasts, scores of new 29.54%, 35.22% were rated gymnasts with scores of 8 (eight), seven (7) - 22.72% and 6.81% achieved grades six (6) (Figure 2).

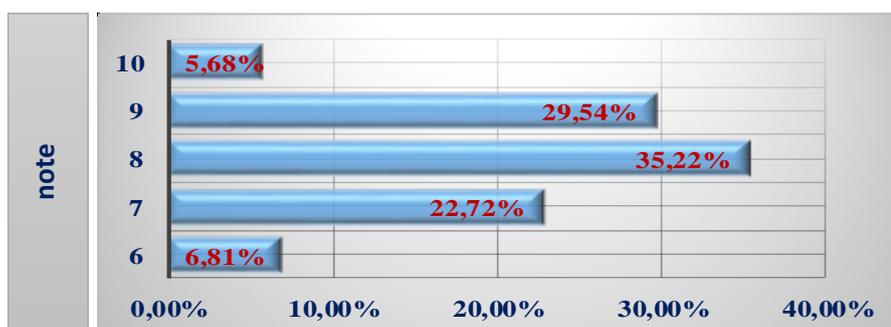


Fig. 2. The results of cognitive skills training gymnasts 5-6 years

For children 5-6 years showed interest "ABC of small gymnasts competence", a manual prepared by the author based on which studied and analyzed the material proposed for primary skills training, the effects of adaptation. In this sense, the visual representation, hearing, moving objects without portable objects, in particular compositions involved in training every sports training, have asymmetrical forms of development (dominant) every gymnast. In rhythmic gymnastics, the representation shall be established based on the perceptions - imagination and creativity.

If our experiment was gymnasts were asked to present by moving the arms of classical ballet positions; to present the movement of classical ballet feet positions; enumerate and present creative elements of classical ballet 2-3; describe in writing the basic symbols of artistic composition. Representing imagination at the age of 5-6 years is prospective and productive.

Mechanisms skills training gymnast's aged 5-6 behaviors are not well pronounced. In the sports training, assimilates and recreates experience, it is the general space activity specific tensions related to its individual characteristics gymnast, but also the situation in training early habituation, knowledge, capacity development learning.

The general conclusions:

1. As a result of analysis and synthesis of theoretical and methodological research on the issue of fundamental cognitive skills training, nascent sports training in rhythmic gymnastics, it can be concluded that the methodology organize and conduct this process, both nationally and internationally it is the beginning of a path and not quite explored.

2. Points out that the existing practice has not been considered how the gymnasts aged 5-6 develop their cognitive attitudes from nascent sports training.

3. Baseline artistic gymnast's skills training 5-6 years nascent sports training is not high. Notes ten obtained 5.68%, 29.54% new notes, 35% were rated gymnasts with scores of 8 (eight), seven (7) 22.72% and 6.81% achieved grades 6 (six).

4. Based on literary studies and experimental research. Nascent sports training at the age of 5-6 years was discovered weight training structure and content of cognitive (knowledge) through the following goals: language (speak, write, communicate); interpretation (comment, explain); to identify movements and enforcement capabilities cognitive and artistic capabilities.

References

- IORGU, JORDAN, eds., (1996), *Explanatory Dictionary of the Romanian language*, Bucharest: Encyclopedic Universe, p. 203, 331.
- GALPERIN, IP., (1975), *Learning psychology studies*. Bucharest: didactic and pedagogical, p. 169.
- PIAGET, J., (2011), *Child Psychology*. Publisher: Cartier, p 160 .
- VINER, I.A., (2003), *Preparation of highly skilled athletes in rhythmic gymnastics*: Author. Dis. cand. ped. Sciences. St. Petersburg: GAFK them. Lesgafta, 25.
- Materials. International scientific conference devoted to the 75 – anniversary of gymnastics November 6, (2009). Lesgaft National State University of Physical Education, Sport and Health, St. - Petersburg, 2010, p. 90 .
- NAZAROVA, O.M., (2001). *Methodology of training in rhythmic gymnastics with children 5-6 years*. Methodical development for trainers (under the general editorship of EP Averkovich), Moscow: OOO "Multiprint", p 38 .
- NACLONOV Y.I, BYSTROVA I.V., KUDASHOV, V.F., (2003). *Directing sports and artistic performances and festivals*. Gymnastics. Moscow: Russian Gymnastics Federation, p. 267-281.
- Key competencies (2002). *A concept in general compulsory Developing Education Eurydice*. The Information Network on Education in Europe, p. 182.

ATHLETES' NUTRITION

Alimentația sportivilor

ELENA SABĂU^{1a}, GEORGETA NICULESCU¹

¹*Spiru Haret University, Bucharest, Romania*

Corresponding author: elenasabau20@yahoo.com

Abstract

Background. The special literature developed a great understanding of biochemical and physiological factors that influence the exercise training. Biological preparation is part of training management. This deals with athletes' nutrition. Nutrient intake before, during, and after training will influence the response to the training stimulus. The total amount of protein intake should be sufficient to support the increase of anabolism exercise.

Objectives. The goal of this article is underline the nutritional requirements for daily athletes training.

Methods. The study of relevant scientific literature. The literature contains information on training and nutritional demands in athletes training.

Results. Many variables require assimilation when formulating the optimal athletes diet. The majority of scientific studies on macronutrient requirements of athletes have been undertaken on male, less than in female.

Conclusion. Dietary protein and carbohydrate intake for athletes must include food with high biological value. *The best way to increase strength is to practice resistance exercise with the support of macronutrients as carbohydrate and protein.*

Keywords: diet, carbohydrate, protein, fat

Introduction

The improvement of the athletes' performance is the goal of training. Coaches deal with the effort and the preparing process according to the sport-specific. Nutrition is an important element in athletes training and depends on specific-sport.

Exercise training induce important adaptation in organs and tissues. Adaptation to training are specific to the nature of the effort, that means volume, intensity duration, frequency.

In basketball the effort is complex and diversified. So the specific effort in basketball means careful preparation and recovery (Popescu, 2003).

The effort paid in handball calls neuromuscular, neuropsychiatric and metabolic system. Therefore it is necessary to have good assessment of the players' effort (Catuna & Alupoie, 2014).

In volleyball training effort is a physical and mental activity through a conscious process that responses to training requirements (Cojocaru & Cojocaru, 2009).

Recovery is an essential condition for the progress in sports training. A good recovery means better background for training. It is well know that nowadays the athletes spend about 8-10 hours training on high level of intensity. After hard efforts the natural, spontaneous recovery is not enough to put the athletes in optimal conditions for training.

Athletes diet purpose is to complement and maximize reserves in certain food in the body, depending on the nature of the effort.

Nutritional requirements vary from individual to individual, depending on the features determined by age, gender, type of work performed physical and mental, season, climate, height, body weight.

Athletes need to understand the role of food intake in support of the effort and biological recovery after exercise and to respect diet. It should cover all essential macronutrients in certain proportions, to maintain the necessary balance and consumption balance.

Diet restores the body after exercise, by restoring homeostasis of internal environment, repel fatigue, restore and ensure efficient working of the body.

The goal of this article is underline the nutritional requirements for daily athletes training. The study of the metabolic response to exercise and the nutrition may provide value exercise, concurrent ingestion of other nutrients with protein, and the type of exercise training.

Methods. The article is based on the study of relevant scientific literature. The literature contains information on training and nutritional demands in athletes training.

Dietary

The fundamental difference in dietary intake between an athlete and non-athletes is that athletes must consume adequate energy to meet the demands of intense training and competitions (Tarnoplosky & Gibala, 2005).

The components of energy expenditure are grouped in three categories (Board & Cox, 2008):

- basal metabolic rate, which is largely related to a person's active tissue mass, and accounts for 60-80% of daily energy expenditure;

- thermic effect of feeding, which is essentially the metabolic cost of the body dealing with the consumption of food;

- the energy in normal and exercise activities.

Athletes must optimize their intake to support training and competition effort and a flexible approach towards food.

Burke *et al.*, (2003) studies' underline that athletes tend to eat several times a day, most commonly on 5-9 times. They found a positive relationship between energy intake and the number of eating occasions each day male and female athletes.

The sport-specific and periodized training, optimal nutrition intake, genetic factors, and equipment are te main determinants of athletic performance ((Tarnopolsky, 2008).

Carbohydrate

Carbohydrates are compounds that have in their structure elements as: C, O, H and N, S, P.

Energy and carbohydrate intake are two of the most important influence on protein requirements.

It is well know that carbohydrate from blood glucose and muscle glycogen store, is an important fuel for exercising muscles, especially higher exercise intensities. Carbohydrate is the essential fuel for most athletes and the daily consumption must maintain adequate levels, because the ability to store glycogen is limited.

Carbohydrate intakes greater than $7.0 \text{ g} \cdot \text{kg}^{-1} \cdot \text{day}^{-1}$ for women and greater than $8.0 \text{ g} \cdot \text{kg}^{-1} \cdot \text{day}^{-1}$ for men is probably sufficient for the maintenance of carbohydrate store during repetitive training sessions (Burke, Loucks & Board, 2006).

The daily intake for athletes is about of $10\text{-}11 \text{ g} \cdot \text{kg}^{-1} \cdot \text{h}^{-1}$ (Vajjala, 2004; Ionescu&Anton, 2004).

Burke et al (2004) suggest the carbohydrate everyday intake in the recovery period for the athletes which are training at least once a day, and practice exercises that need muscular glycogen stores:

Table 1 *Guidelines for carbohydrate intakes daily training*

Activities	Carbohidrate intake
Immediate recovery after exercises (0-4 ore)	$1.0\text{-}1.2 \text{ g} \cdot \text{kg}^{-1} \cdot \text{h}^{-1}$
Daily recovery: moderate-duration/ low-intensity training	$5.0\text{-}7.0 \text{ g} \cdot \text{kg}^{-1} \cdot \text{day}^{-1}$
Daily recovery: moderate to heavy endurance training	$7.0\text{-}12.0 \text{ g} \cdot \text{kg}^{-1} \cdot \text{day}^{-1}$
Daily recovery: extreme exercises programme	$10.0\text{-}12.0+ \text{ g} \cdot \text{kg}^{-1} \cdot \text{day}^{-1}$

A methodological issue regards to higher carbohydrate diets which is the effect of consuming the additional carbohydrate during the daily training programme.

Broad & Cox opinion is that maintaining an adequate carbohydrate intake about 8.5 versus 5.4 g · kg⁻¹ · day⁻¹ helps maintain running speed and reduce symptom of stress during heavy exercises. When carbohydrate needs are high refined carbohydrate source is beneficial so as not to calm the appetite excessively. It is important to have a faster muscular glycogen replenishment rates in the first 1-2 hours after heavy training.

Protein

The determination of an optimal protein intake for any athletes is an extremely complex integration of multiple variables. There are many opinions about the optimal protein intake.

Most country have dietary protein needs about 0.8-1.0 g · kg⁻¹ · day⁻¹ (McKenzie *et al.*, 2000).

The non-athletes need is about 0.8 g · kg⁻¹ · day⁻¹. The general consensus appears to be 1.2-1.7 g · kg⁻¹ · day⁻¹ (Tipton & Wolfe, 2004).

For moderately trained athletes the estimated protein requirements are in order of 1.0-1.2 g · kg⁻¹ · day⁻¹ (Phyllips et al, 1993).

Protein intake higher than recommended may be consumed as part of high-energy diet.

For athletes who are training high intensive efforts Ionescu & Anton (2004), Vajjala, (2004) suggest about 1.5-1.8 g · kg⁻¹ · day⁻¹. More than this the athletes which practice exercises that need power the protein intake is about 2.3-2.5 g · kg⁻¹ · day⁻¹.

Some experiments that compared the bodybuilders and football players versus sedentary people protein requirements the results underline that bodybuilders needs are more than the sedentary about 1.1. g · kg⁻¹ · day⁻¹ and the football players needs were 1.76 g · kg⁻¹ · day⁻¹ (Tarnopolsky, 2008).

Athletes must avoid high protein sources rich in saturated fatty acids. When protein rate exceeds tolerable amount muscle efficiency decreases, because muscular fiber get intoxicate with protein catabolic produces.

Dietary protein has a role in recovery after training and optimizing muscular hypertrophy (Tarnopolsky, 2008).

Dietary fat is also a source of essential fatty acids and fat (McArdle, Katch, & Katch, 1999). Fat is an abundant source of fuel stored in human body, and can be utilized by by exercising musculure, with maximal rates of fat oxidation occurring at exercise of ~ 60% VO_{2max} (Romijn *et al.*, 1993).

Resistance exercise training leads to an increase of muscle mass over time and protein requirements. Some special studies have demonstrated that there is an increase in muscular protein synthesis rate that starts as early as 3 h after an exercise bout and which can persist for up 48 h (Hasten *et al.*, 2000).

It is important for the top athletes to consume carbohydrate and protein to meet energy and glycogen replenishments needs.

Fat

Athletes consume more than the recommended levels of dietary fat intake (20-25% of total energy intake). Lower dietary fat may be used for cultural reasons or in order to maintain low body fat, especially in endurance or aesthetic sports (Loucks, 2007).

Nowaday researches highlight the role of intramuscular triglyceride stores as a source of fuel for effort, and could contribute up to 50% of total fatty acid fuel (Stellingwerff *et al.*, 2007).

Some studies show that females used more fat, and less carbohydrate, as fuel at the same relative exercise intensity as males, and have stores high intramuscular triglyceride than males (Carter, Rennie & Tarnopolsky, 2001).

Conclusions

Many variables require assimilation when formulating the optimal diet for athletes. The diet must fit to sport-specific, each athlete. The daily food is different according to the season training, metabolic adaptation, in males and females.

Carbohydrate intake can improve endurance and performance capacity. The active muscle mass becomes more dependent on carbohydrate as source of energy, by increasing exercise intensity. Endurance athletes are focused on carbohydrate intake, but recently protein has been touted to be critical during and after endurance exercise (Tipton, K.D, 2008).

Most top athletes consume adequate energy from foods that provide adequate amount of protein to meet oxidation requirements, for heavy training and muscle increase.

Protein is a nutrient for muscle hypertrophy with training, but there is a little support for the need for very high intakes.

References

- BOARD, E.M. & COX, R.G., (2008), What is the optimal composition of athlete's diet? *European Journal of Sport Science*, 8(2): 57-65.
- BURKE, L.M., LOUCKS, A.B. & BOARD, E.M., (2006), Energy and carbohydrate for training and recovery. *Journal of Sports Science*, 24, 675-685.
- BURKE, L.M., SLATER, G., BOARD, E.M., HAULKA, J., MODULON, S. & HOPKINS, W.G., (2003), Eating pattern and meal frequency of elite Australian athletes. *International Journal of Sport and Exercise Metabolism*, 13, 1-19.
- CARTER, S.L., RENNIE, C. & TARNOPOLSKY, M.A., (2001), Substrate utilization during endurance exercise in men and women after endurance training. *American Journal of Physiology: Endocrinology and Metabolism*, 280, E898-E907.
- CĂTUNĂ, C.G. & ALUPOAIE, M., (2014), Handbal Curs în tehnologie IFR. București: Editura Fundației România de Măine, 52.
- COJOCARU, A. & COJOCARU, M., (2009), *Volei, antrenament și performanță*, București: Editura Bren, 75-76.
- IONESCU, A. & ANTON, B., (2004), *Dirijarea medicală a efortului*. Centrul National de Formare și Perfectionare a Antrenorilor, 101, 134.
- LOUCKS, A.B., (2007), Low energy availability in the marathon and other endurance sports. *Sport Medicine*, 37, 348-352.
- McARDLE, W.D., KATCH, F.I. & KATCH, V.L., (1999). *Sports and exercise nutrition*. Baltimore, MD: Lippincott Williams & Wilkins.
- McKENZIE, S. *et al.*, (2000), Endurance exercise training attenuates leucine oxidation and BCOAD activation during exercise in humans. *American Journal of Physiology: Endocrinology and Metabolism*, 278, E580-E587.
- PHYLLIPS *et al.*, (1993). Gender difference in leucine kinetics and nitrogen balance in endurance athletes. *Journal of Applied Physiology*, 75, 2134-2141.
- POPESCU, F., (2003), *Metodologia învățării tehnicii jocurilor sportive*. București: Editura Fundației România de Măine, 32-34.
- ROMIJN *et al.*, (1993), Regulation of endogenous fat and carbohydrate metabolism in relation to exercise intensity and duration. *American Journal of Physiology: Endocrinology and Metabolism*, 265, E380-E391.
- STELLINGWERFF *et al.*, (2007), Significant intramyocellular lipid used during prolonged cycling in endurance-trained males as assessed by three different methodologies. *American Journal of Physiology: Endocrinology and Metabolism*, 292, E1715-E1723.
- TARNOPOLSKY, M.A. & GIBALA, M., (2005), Nutritional needs of elite endurance athletes. Part 1: carbohydrate and fluid requirements. *European Journal of Sport Science*, 5, 3-14.
- TARNOPOLSKY, M.A., (2008), Building muscle: nutrition to maximize bulk and strength adaptations to resistance exercise training. *European Journal of Sport Science*, 8 (2), 67-76
- TARNOPOLSKY, M.A., (2008), Building muscle: nutrition to maximize bulk and strength adaptations to resistance exercise training. *European Journal of Sport Science*, 8, 67-76.
- TIPON K.D. & WOLFE, R.R., (2004), Proteins and amino acids for athletes. *Journal of Sport Science*, 22, 65-79.
- TIPTON, K.D., (2008), Protein for adaptation to exercise training. *European Journal of Sport Science*, 8 (2), 107-118.
- VAJIALA, E. G., (2004), *Igienă și evaluare biologică*. Editura Fundației România de Măine, 113, 109.

**STUDY REGARDING THE DYNAMICS OF THE ROMANIAN SWIMMING
RESULTS REGISTERED AT THE OLYMPIC GAMES
IN THE WOMEN'S 200 M BACKSTROKE SAMPLE**

**Studiu privind dinamica rezultatelor înregistrate la Jocurile Olimpice la înot
în proba feminină de 200 m spate**

ALINA-MIHAELA STOICA^{1,a*}

¹*University of Bucharest, Romania*

* Corresponding author: alina.stoica@g.unibuc.ro

Abstract

At the Olympics, swimming plays an important role since the first edition of the Ancient Olympic Games. The first Romanian female participation in swimming is registered at the Olympic Games in Munich 1972. The first Olympic bronze medal won by Romania in women's 200m Backstroke sample was at Olympic Games in Los Angeles 1984. Romania won the first gold medal in the same sample at Olympics in Sydney 2000. We were interested in the women's 200m backstroke sample, because we obtained the first notable result at the Olympic Games, remarking also a constant participation in this sample during 20 years.

Keywords: Olympic Games, Romanian swimming, women's 200m backstroke event, evolution, results.

Introduction

The Olympic movement as a whole has an important role in the development of world sport and, of course, its expression – the Olympic Games.

Giving evidence of the perseverance and a spirit of organizing, Pierre de Coubertain began broadly what was to become the Olympic movement. Thus, the proposal of the International Olympic Committee is hereby established in the year 1894, being entrusted with the development of the Olympic movement and the organization of the first edition of the Olympic Games in Athens-1896 (Postolache, 1995).

As a result of significant organizational structures of sport, like sport clubs and associations, as well as a schedule of internal and international competitions, Romanian swimmers' performance has increased quantitatively and qualitatively. The most convincing expression of them is the participation and achievement of notable results at the Olympic Games (COR, 2002).

At the Olympics, swimming plays an important role since the first edition of the Ancient Olympic Games. Along the time, the samples are completed the contest within the Modern Olympic Games, with a total of 32 (Postolache, 1995).

The first Romanian female participation in swimming is registered at the Olympic Games in Munich 1972, where the swimmer Anca Groza participated in the 200m butterfly sample, making national record with 2.30.3.

The first result in the women's 200m backstroke is recorded in 1980 at the Olympics in Moscow, where the Romanian swimmer Carmen Bunaciu occupied the fourth place with 2.15.20. The same swimmer registered worse result in the next edition of the Olympic Games in Los Angeles 1984 in the same sample (02.16.15). But it is the first Olympic Games where Romania won the first bronze medal, by Anca Pătrășcoiu, in the 200m backstroke final, with time of 02.13.29 (www.frnfm.ro).

The Romanian swimmer Diana Mocanu brought the first gold medal by amazing result obtained at the Olympics in Sydney 2000 in the 200m backstroke sample, recording the best time in her country of all times – 2.08.15, this swimmer also winning one gold medal in the 100m backstroke sample (1.00.21) at the same edition of Olympic Games (www.olympics.org).

The outstanding achievements of swimming team were classified Romania on the seventh place in the hierarchy of nations in this sport, the highest ranking until now.

The problems and the results

We were interested in the women's 200m backstroke sample, because in this sample were obtained the first notable result at the Olympic Games, remarking also a constant participation in this sample during 20 years.

We present below the statistical evolution of Romanian swimmers at the Olympic Games:

Table 1. Dynamics of the Olympic performance of the Romanian female swimmers

YEAR Olympic Games	MEDALS			PLACES			TOTAL	200m Backstroke sample
	GOLD	SILVER	BRONZE	4 th PLACE	5 th PLACE	6 th PLACE		
1980				2			2	1
1984			1	1	1	1	4	1
1988		1	1	1		1	4	
1992					1		1	
1996						1	1	
2000	2	1	1	1			5	1
2004	1			1			2	
2008				1	1	1	3	
2012								
Total	3	2	3	7	3	4	22	
200m Backstroke	1	0	1	1	0	0	3	3
%	33,3	0	33,3	14,3	0	0	13,7	

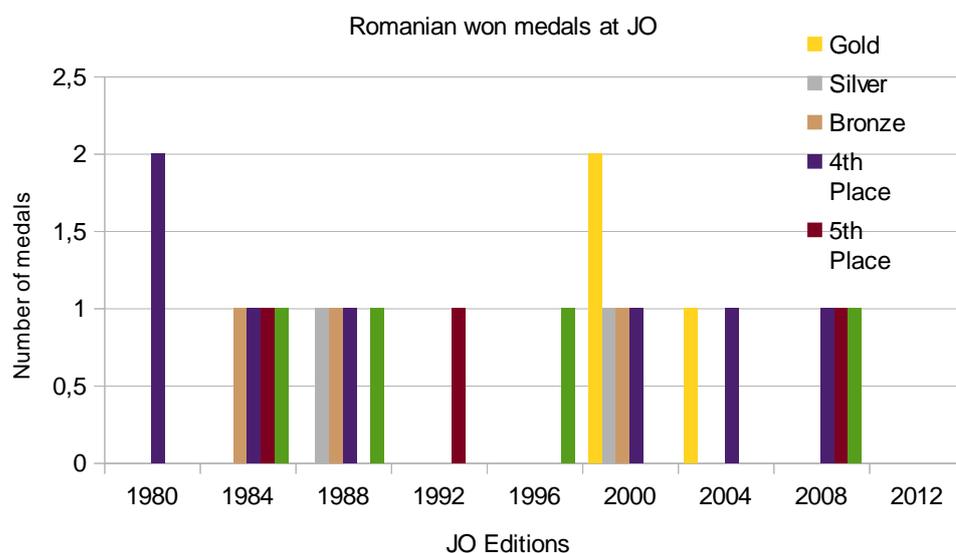


Fig. 1. The dynamics of the Romanian swimming performance at the Olympic Games in the women's 200 m backstroke sample

Looking at the table and figure above, there is a relatively balanced dynamics of performance during the studied period (1980-2012), but prevail the results on 4th, 5th and 6th place at the expense of won medals.

However, it highlighted the 8 medals won by Romanian women swimmers between 1984-2004, two prolific decades for Romanian sport in general and women swimming in particular. Of these medals, 3 are gold: 2 medals won by Diana Mocanu at the Olympic Games in Sydney (2000) and one won by Camelia Potec at the Olympics in Athens (2004).

Regarding the 200m Backstroke, according to the table 1, this sample represents 13.7% of all results obtained by Romanian women swimmers in all Olympics Games during 20 years (1984-2004). Of these, we mention 1 gold medal in 2000, 1 bronze medal in 1984 and a 4th place in 1980.

It should be noted that in each edition of the Olympic Games were participated in the women's 200m Backstroke sample, Romania obtained notable results, even winning the Olympic title. Have been obtained more modest places too, like 10th place at the Olympic Games in Seoul (1988) and 12th place in Atlanta (1996).

We must note that before and after this period, Romania did not have any participation in the Olympic women's 200m Backstroke sample.

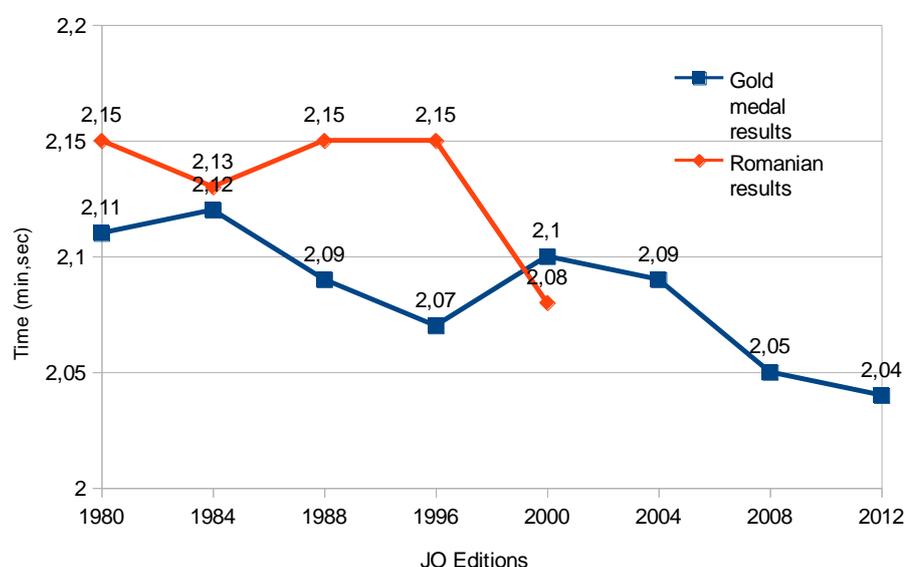


Fig. 2. Performance in the women's 200m Backstroke sample compared to gold medal in the Olympic Games

Looking at Fig. 2, it highlights the constant results of Romanian women swimmers as compared to the gold medal results obtained at the Olympic Games during 1980 - 2012. The exception is Diana Mocanu's performance of the Olympic Games in Sydney (2000), Romanian swimmer who won the gold medal, with 3 sec. better than the silver medal winner and also with approx 1 sec. better than the result obtained by the gold medalist at the next Olympic Games in Athens (2004).

On the other hand, the Olympic performance characteristic of the first place shows an improvement from the 1980 to the 2012 edition, the difference is significant, of around 7 sec., which represents a remarkable evolution of women swimmer performance in this sample.

Conclusions

On the basis of these data for total medals – the results obtained by Romanian women swimmers – we can say that Romania has an active presence at the Olympics in this century.

Comparing the Romanian swimming results at the Olympic Games with those from other sports, in terms of quantity (number of won medals), these are not spectacular. The lack of sport facilities at the highest standards, and the lack of rigorous selection and methodology of the appropriate training, obstruct swimming to become a sport with a competitive strength similar to the disciplines with tradition in Romania (athletics, gymnastics, kayaking, fencing etc).

Considering these data and estimates may be developed strategy and tactics of selection and training and settle part of our country's team for the upcoming Olympic Games, to improve their performance, but also for the visibility of Romania in the Olympic rankings.

Proposals

By participating the Romanian swim team in major competitions, it aims to:

- knowing and promoting the country's image by valuable athletes;
- promoting ideas of peace, friendship, fair play and communication between athletes and nations;
- enriching the knowledge on the possibilities of the human being, providing important data for scientific research;
- assessing individual effort that swimmers are able to make.

Swimming and sport performance in general must take into account that training is conducted under the guidance of a complex team, made up of swimmer - coach - physical trainer - physician - biochemist - psychologist - researcher - nutritionist - physical therapist, meaning an interdisciplinary team that it is crucial in achieving world-class performance.

Also, improving the sport facilities will directly contribute to the increase of athletic performance by adapting training methods to the requirements of competitions concerned and the quality and quantity of international sports performance.

Regarding the women's 200m Backstroke sample, scientific planning of training must take into account the typology of effort, that type of anaerobic-aerobic effort specific to this sample (the lack of oxygen reaching the 8 to 11 liters in 2 minutes necessary to travel along this distance) (Marinescu, 2008).

References

- ALEXE, N., (2006), *Istoria exercițiilor fizice*. Editura Fundației România de Măine, București.
- COLWIN, C.M., (2002), *Breakthrough swimming*, Ed. Human Kinetics, Champaign, Illinois.
- C.O.R., (2002), *România la Jocurile Olimpice*. Ediția a III-a revizuită și actualizată. Regia Autonomă „Monitorul Oficial”, București.
- FINA, (2000), *Manual de Natație* (Swimming Natation Canada).
- HANNULA, D., (2003), *Coaching swimming successfully*, Edition Human Kinetics, Champaign, Illinois.
- MARINESCU, GH., BĂLAN, V., (2008), *MDS Natație și nautice*. București, ANEFS.
- PLĂSTOI, C., (2008), *Natație*. Editura Academica Brâncuși, Târgu-Jiu.
- POSTOLACHE, N., (1995), *Istoria sportului în România. Date cronologice*. Editura Profexim, București.
- STOICA, A.M., (2013), *Înot. Fundamente teoretice și practico-metodice pentru studenții Universității din București*. Editura Universității din București.

www.cosr.ro

www.frnfm.ro

www.olympic.org

COSIDERATION REGARDING THE ORIENTATION OF SELECTION AND PHYSICAL TRAINING IN YOUTH FOOTBALL

Considerații privind orientarea selecției și pregătirii fizice în fotbalul juvenil

MARIUS STOICA *

National University of Physical Education and Sport Bucharest, Romania

*Corresponding author: mariusstoica08@yahoo.com

Abstract

From the point of view of evolution, selection recorded major changes and the results have created the foundations for the development of the junior selection systems in the football game.

In preparation approach to maximize the performance potential of football players during training levels and age groups, it necessarily requires systematisation of factors that determine and developing predictions about the dynamics of it.

These concerns are highlighted by national and international research results, regarding the criteria and factors that determine the selection and athletic performance in the football game.

Keywords: selection, physical training, football, juniors.

Introduction

The complexity of relations established between the selection values, the manifestation parameters of physical training components and efficiency in the development of players in official games is evidenced by the following comments (Stoica, M., 2002):

- the selection value is crucial in achieving training models optimized for each subsequent level of training, which conditions and substantiates the performance levels achieved;
- any time of preparation, a player show his full potential of the possibilities in relation to the reference time, which can be detected by checking result in training, in checking games and in official games;
- between the time when a player can show its full potential and its potential in the official game must produce a report of incidence;
- taking into account the period between a certain time of preparation and the official place is required, necessarily, increase the potential of manifestation of each player, whose objectifying enable the establishment the dynamic necessary in the ratio of incidence between the maximum value thereof and value of evolution in official games.

The main factors involved in determining the level of expression of performance potential are the following (Colibaba, D., Bota, I., 1998):

- the age, the psychosomatic peculiarities, the level of training and the objective value of competition evolution;
- the professionalism of coaches and trainers, the motivation of them and the juniors;
- national and international competition schedule;
- the volume of training;
- the methodology used in preparation;
- the training and competition conditions;
- the nutrition of players (special medication);
- the recovery after exercise;
- the medical care, psychological support, information technology support.

The main difficulties in solving problems related to the selection, training and performance potential objectifying of junior football players stand out through limiting trends in the particular aspects of the components, requirements and factors that determine the performance value of them.

Problems

The act of the selection is achieved by using (Motroc, I., Motroc, F., 1999):

- an empirically system based on spontaneous checking of children, estimating their potential according to the requirements of any particular sport branches;
- a scientific system based on the and organization of the scheduled selection implemented by the number of standardized tests and differentiated structures of these tests. Thus, by ranking the results and their classification within certain limits of the requirements already established, is coordinated the appreciative-subjective component with the evaluative-objective one in optimizing the efficiency of selection.

To achieve a performance is required a training period scheduled for about 10 years. The formative aspect of training is a priority in all its sides. This allows a maximum capitalizing of the performance capacity along a period of 10-12 years.

Following several researches at Fellow Institute from USA, it has developed a scale that determines the relationship between stature to a certain age and definitive stature, based on a growth forecast.

Table 1. *The relationship between a certain age stature and definitive stature*

Age	% from the definitive stature	Age	% from the definitive stature
7 years old	69.0 %	13 years old	87.1 %
8 years old	72.2 %	14 years old	92.0 %
9 aniyears old	75.4 %	15 years old	96.6 %
10 years old	78.3%	16 years old	98.8 %
11 years old	81.3 %	17 years old	99.8 %
12 years old	84.1 %	18 years old	100 %

To optimize the relations between selection and performance shall be established the requirements of the selection and the main factors of performance represented by: *somatic capacity, motor capacity, mental capacity.*

Analysis of the values of manifestation of somatic, motor, functional and psychological parameters highlighted in the progress and performance of major players in world football and guidelines on selection of international football and have determined specialists to systematize a set of requirements and criteria on optimizing the selection, namely:

a. Requirements for selection:

Table 2. *Requirements for selection*

Features	%
Somatic type	30%
Stature	40%
Relation stature/weight	60%
Motor capacity	50%
Skill	35%
Strength	10%
Speed	35%
Endurance	20%
Mental capacity	20%
Analysis of situations	35%
Combativity	35%
Initiative	30%

b. Criteria for selection:

- Somatic criteria – the guidance values of the players stature on posts:

Table 2. *The guidance values of the players stature on posts:*

Nr.	Postul în echipă	Valorile de statură în succesiunea vârstelor	
		14-16 ani	16-18 ani
1	goalkeepers	174 cm	180 cm
2	Lateral defenders	166 cm	175 cm
3	Central defenders	175 cm	180 cm
4	Midfielders	166 cm	175 cm
5	Strikers	166-174 cm	175-18 cm

- Motor criteria - by the results recorded in the control samples (for 10-16 years old):
 - speed running 50 m;
 - resistance running 600 m for 10-12 years old and 2000 m for 13-16 years old;
 - long jump from standstill;
 - the sense of ball and the its control;
 - maintained hanging in flexion at the fixed bar for 13-16 years old;
 - shuttle;
 - lifting trunk;
 - coxo-femoral mobility;
 - squats on each leg;
 - throwing medicinal ball ahead, overhead;
 - hits at two gates;
 - hit the hanging ball;
 - complex sample;
 - the race in the penalty area.

Conclusions

Entering and highlighting some juniors in the senior teams is an certification of performance capacity that can be achieved on the basis of special values of the trainers and physicians who objectified the model of the selection and a streamlined preparation by applying the optimized patterns of training throughout the training levels and competitive age groups during junior period.

The dynamics of promoting the players from one competitive category to another is determined by the initial selection value and the efficiency of training achieved in each level of training.

Given the specificity of the football game, modeling of the selection and training of the youth players in any country in the world is performed by considering their specialized posts.

Through their evolution will increase the overall effectiveness of the game in offensive and defensive phases performed by the team. From this point of view (Pradet, 2000), worldwide:

- the initial selection is performed in accordance with the requirements which maximizes selection in the vertical plane and ensures attainment that optimizes the model of the team structure on posts in sequence of the training levels and the competition categories;
- the preparation successively adapts to somatic and psycho-motor peculiarities specific to each educational level and competitive category in general and meet the requirements on achieving specialization on posts in particular, so that at the end of youth period many players meet the standard of the high performance footballer.

References

- BOLLINI, R., (2011), *Il core training per l'allenamento funzionale nel calcio*, Calzatti Mariucci.
- COLIBABA-EVULEȚ, D., BOTA, I., (1998), *Jocuri sportive. Teorie și metodică*. București, Editura Aladin.
- MOTROC, I., MOTROC, F., (1999), *Fotbal la copii și juniori*. București, Editura Didactică și Pedagogică.
- PETRIGNAN, R., (2008), *La preparazione atletica annuale di una squadra professionistica*, www.allenatore.net
- PRADET, M., (2000), *Pregătire fizică*. București, MTS, CCPS.
- STOICA, M., (2002), *Conceptul de pregătire fizică la copii și juniori*. Simpozionul științific internațional: „Tendințe și orientări în pregătirea fizică în fotbalul de mare performanță”, F.C. Dinamo București.

THE EVOLUTION OF COMPETITIVE PERFORMANCES FOR “10 m AIR RIFLE, MEN”, DURING 2009-2012 OLYMPIC CYCLE

Evoluția performanțelor competiționale la proba pușcă aer comprimat 10 m masculin, în cadrul ciclului olimpic 2009-2012

CĂTĂLIN ȘERBAN^{1*}, BOGDAN GOZU²

¹University of Bucharest, 36-46 Blvd. M. Kogălniceanu, Bucharest, Romania

²University of Bucharest, 36-46 Blvd. M. Kogălniceanu, Bucharest, Romania

* Corresponding author: serban_i_catalin@yahoo.com

Abstract

This research paper is a case study to analyze the evolution of the performances obtained internationally by the shooter Moldoveanu Alin George (M.A.G.), the Olympic champion in London 2012, for the “10 m Air Rifle, 60 shots men” event, during the 2009-2012 Olympic cycle. It is known that, at the first participation in the Olympic Games (OG) of Beijing 2008, the shooter occupied the 4th place, and at the second participation, in London 2012, he won the Olympic title. This paper, through its content and way of approach, aims to highlight the importance of knowing the particular aspects of high performance training specific to the shooting sport. The data presented are of undoubted theoretical and practical value, due to the fact that they are related to the model of reigning Olympic champion.

Keywords: shooting sport, rifle, result, champion.

Introduction

“The current language considers performance as a result of an activity, such as the completion of a task or action successfully achieved”. Performance can be seen as the (individual or collective) result obtained following an assessment (expressed in absolute figures, considering the official scale system or the place in the ranking) (Epuran, Holdevici and Tonița, 2001).

The interest to reach optimal sports performance in a short time, with high efficiency and minimum biological risks, has led to a huge development of scientific research in sports, but also to an increased reaction for the knowledge transfer and implementation in other areas (Gagea, 2007:7).

Sports performance is defined (according to Dragnea, 1996: 61) as “a bio-psycho-social value achieved in an official competition, as a result of a capacity with multiple determinations and appreciated on the basis of rigorous criteria or scales”. It can be a valuable individual or collective result obtained in a sports competition and expressed in absolute figures, considering the official scale system or the place in the ranking. This means both the process and outcome of an action which, in specialized terms, represents craftsmanship, a task accomplished as well as possible, being dependent on the interrelationship of endogenous factors (predispositions, skills) with exogenous (environmental) factors expressed in the quality of training, motor conditions, motility and influence of social factors”.

Shooting sport is a sports area with significant results achieved both nationally and internationally, where the performance is determined by a number of conceptual educational, organizational, psychosocial and economic-financial factors. During the two Olympic cycles, a lot of modifications in the shooting equipment and weapons appeared and put their mark on the results in high level competitions.

The 10 m Air Rifle is an event included in the International Shooting Sport Federation (ISSF) competition calendar since 1966, when the first World Championships were held in Germany, Wiesbaden, and starting from 1984, in Los Angeles, it has been integrated into the circuit of Olympic

Games. In addition, this event is part of competitions such as World Championships, World Cups, World Cup Finals, continental championships and other national and international competitions (10-meter air rifle, 2015).

The air rifles used are considered non-lethal, as they are using compressed air to propel the projectile (pellet/diabolou) at a distance of 10m. These weapons are 4.5mm caliber and weigh about 5.5 kg. They have evolved from arming weapons by means of lever weapons using compressed air bottles/tanks (about 220 bars).



Image 1. *The air rifle (<http://iwtsa.org.uk/wp-content/uploads/2013/08/fw700.jpg>)*

Projectiles used (pellets) are made of an alloy of lead with a diameter of 4.5 mm (0.177 inch). These pellets have flat ends to leave on a paper target perfectly round holes and to achieve a more accurate and easier scoring. Manufacturers of these pellets are packing their products in special boxes which prevent deformation that would damage the result of shooting.

The targets used may be paper or electronic.

Size: diameter of circle 1 = 45.5mm; diameter of circle 4 = 30.5 mm; diameter of circle 9 = 5.5 mm and diameter of circle 10 = 0.5 mm.

The target is placed at a distance of 10 m and a height of 1.4m from the location of the shooter.

With changing regulations in 2013, in terms of calculating the score, the targets of paper are increasingly less used, this giving way to the electronic ones, which are recording in real time the value of shots with decimals (10.9), total score and more.

The shooter's clothing is of a particular importance to improve its stability in the firing position and to prevent excessive deformation of the spine because of the weight of the weapon supported in an asymmetric position.

The jackets and pants were initially sewed from natural leather, but nowadays synthetic materials are used, especially designed to meet the ISSF rules regarding elasticity (jacket) and dimensions of certain areas (upper trousers). These two pieces are made on order, respecting the anatomical particularities of the shooter.

The boots are especially designed with flat soles and high up above the ankle to ensure better stability. The sole of these shoes must comply with a certain degree of bending requested by the ISSF regulations.

The gloves worn on the hand which manipulates the gun and is made of a very sticky material that offers the shooter a clean contact with the gun's groove.

The tripod is a device used by shooters to support the weapon between the shots (rest and recharge) and for stacking the pellets boxes in the especially designed place. This allows the shooter to limit the magnitude and number of movements between the shots.

Operational and methodological framework

The purpose of research: highlighting the fact that the change of shooting equipment (clothes and air rifle) of an international shooter in the 10m air rifle event will cause a drop in

performance. The shooter needs a long time to accommodate with the new equipment and obtain notable international results.

In an article on the website, *Povestea extraordinară a lui Alin Moldoveanu și a tirului, sport în care milimetrul se împarte în zece – blestemul perfect* (The extraordinary story of Alin Moldoveanu and of shooting sport, where the millimeter is split in ten – the perfect curse), the athlete M.A.G. completes the reporter’s statement:

“-After Beijing, you had a lower performance for a long time”.

“- Yes, we changed many things, including the rifle. A coach told me, when I was a kid, that the weapon becomes part of the body for a shooter. It took me three years, three years of poor results, to reconnect with the rifle and recover also the calculation that mind and body do instinctively. I will not change the rifle anymore, unless I give up shooting. I cannot stand a new calibration of my body, my eyes, respiration, hand and mind...”

Goals: theoretical analysis of the specialty literature; analysis, processing and interpretation of data using graphics.

Assumption: it is known that, in most of shooting sport events and especially in 10m Air Rifle event, the connection built over time between the shooter and the equipment has a significant importance in obtaining performance at the highest level.

Hypothesis: in the 10m Air Rifle event, changing the shooting equipment (clothing and weapon) will require a long period of adjustment, which will be reflected in results at high-level competitions.

Research Methods

Observation method: through its content and many forms of presentation, observation is one of the most appropriate methods to explore the natural environment. As a scientific method of research, it consists in “tracking deliberately, carefully and methodically the aspects of facts, processes, events and the accurate and systematic recording of their various manifestations, as they behave in natural, normal conditions, in order to present them in their essential aspects in an existing situational context” (Niculescu, 2002. pag. 316).

Analyzing the results, apart from the year 2010, in the Olympic cycle 2009-2012 (finalized with winning the Olympic title) we see an increase in the average performance, respectively 592/600 to 594/600 points (table 1).

Table 1. Results obtained at international competitions in the 2009-2012 Olympic cycle

Age	2009	2010	2011	2012
results international competitions	591	584	590	590
	592	594	593	592
	592	591	586	593
			598	599
			595	597
average/age	592	590	592	594
average/ Olympic cycle	592			

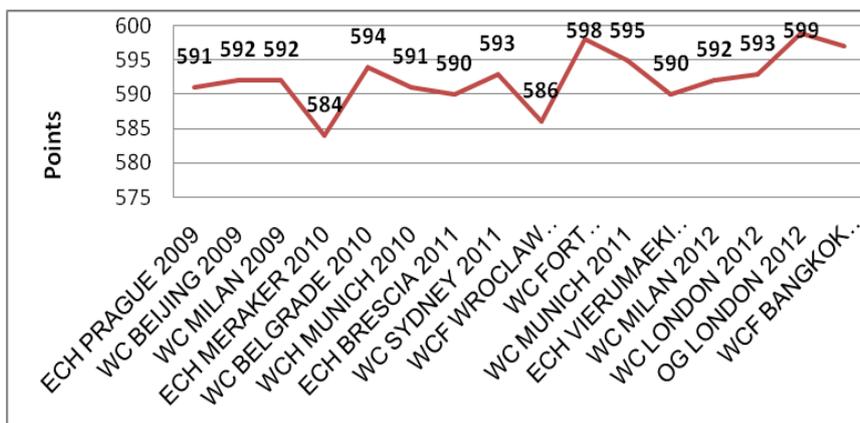


Fig. 1. Evolution of results obtained in international competitions in the Olympic cycle 2009-2012

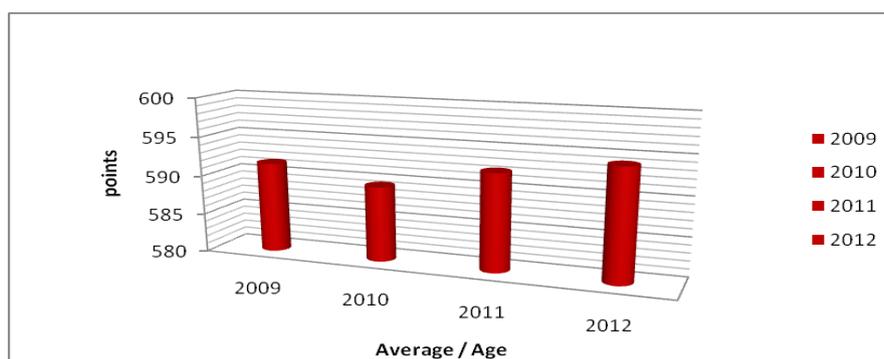


Fig. 2. Average of the results in international competitions during the 2009-2012 Olympic cycle

Conclusion

Although at the Olympic Games – London 2012 the shooter M.A.G. won the Olympic champion title (equaling the Olympic record of 599 out of 600 points possible), the 2009-2012 Olympic cycle shows a number of changes from the previous Olympic cycle, like fewer competitions planned in the competition calendar and weaker results (fig. 1, 2). This is explained by the fact that, in 2009, the shooter had made a number of changes on the shooting equipment (clothing and air rifle), which required a longer period of accommodation to the new equipment and getting in the proper shape. Therefore, the performance achieved is even greater as it assumed a permanent adjustment of training tasks and keeping them consistent with the established operational, intermediate and overall objectives.

References

- DRAGNEA, A., (1996), *Antrenamentul sportiv*. Editura Didactică și Pedagogică, București.
- EPURAN, M., HOLDEVICI, I., &TONIȚA, F., (2001), *Psihologia sportului de performanță. Teorie și practică*. FEST, București.
- GAGEA, A., (coord.), (2007), *Cercetări interdisciplinare în sportul de performanță*. Editura Ministerului Internelor și Reformei Administrative, București.
- NICULESCU, M., (2002), *Metodologia cercetării științifice în educație fizică și sport*. București: ANEFS. pag. 316.
- <http://www.tolo.ro/2012/07/17/povestea-extraordinara-a-lui-alin-moldoveanu-si-a-tirului-sport-in-care-milimetrul-se-imparte-in-zece-blestemul-perfect/>
- http://en.wikipedia.org/wiki/10_metre_air_rifle 10-meter air rifle. (2015).
- <http://iwtsa.org.uk/wp-content/uploads/2013/08/fwb700>. The air rifle. jpg

AN INTERDISCIPLINARY MODEL FOR THE STUDY OF THE COMPETITION STRESS IN ALPINE SKIING: EMOTIONS, PERCEIVED STRESS AND SALIVARY STRESS HORMONES

Model interdisciplinar al studiului stresului competițional în schiul alpin: emoții, stres perceput și hormoni de stres salivari

VLAD AL. TOMA^{1,2,3}, EDUARD BUCĂLIE⁴, PAUL CIOLPAN⁴, ANDREAS BANU⁴,
IOANA ROMAN², EMILIA F. GROSU⁴, ALINA S. RUSU^{5,*}

¹*Doctoral School of Integrative Biology, Babeș-Bolyai University, Cluj-Napoca, România*

²*Biological Research Institute, Republicii Street No. 48, Cluj-Napoca, România*

³*NIRD for Isotopic and Molecular Technologies, Cluj-Napoca, Romania*

⁴*Faculty of Physical Education and Sport, Babeș-Bolyai University, Cluj-Napoca, România*

⁵*Faculty of Psychology and Educational Sciences, Babeș-Bolyai University, Cluj-Napoca, România*

* Corresponding author: alina.rusu@ubbcluj.ro

Abstract

Background. Alpine skiing is a winter sport that includes descent of the snow-slopes through specified gates using skis with fixed heel ties. Organization of the instructive and educational activities within alpine skiing is based on the necessities and interest of individuals for practical experience, as well as on natural conditions and material resources of the skiers. Although physical activity is associated with psychological, motoric and anagenic effects, preparation for and the competition itself might be associated with psychological and physiological stress, which can be visible at level of endocrine functions (i.e. changes in salivary cortisol concentrations) and at levels of negative, positive emotions and the general level of perceived stress. A pertinent question is whether the physiological and psychological indicators targeted by us are parts of the same coping mechanism or are they parts of distinctive coping strategies, one related to the physical readiness of the body for the specific context of the competition (i.e. salivary cortisol) and the other one related to the general emotion regulation abilities of the individual (i.e. general level of the perceived stress, profile of emotional distress).

Objectives. The aim of our research is to investigate the dynamics of the salivary cortisol concentrations, general level of perceived stress and the level of negative functional and dysfunctional emotions in skiers during an alpine skiing competition.

Methods. Saliva will be individually collected in a standardised non-invasive manner in three distinctive moments: (T1) before the individual performance, (T2) immediately after the slope descending and (T3) after the pannel results. Standardised questionnaires (perceived stress, profile of emotional distress) will be individually filled in before and after the alpine skiing competition.

Results. Results on the psychological and physiological variables will be discussed while taking into account the individual expectancies regarding the performance and the real results at the competition.

Conclusion. The salivary concentrations of cortisol might show a time-dependent variation according to competition phases, in relation to several psychological variables (general level of perceived stress, expectancies related to the competition, etc.). However, stress evaluation by biochemical assay and questionnaires might point to the direction that skiing actually modulates the stress reactivity of the organism. Further, these observations may be used in the workout planning and psychological preparation of the skiers.

Keywords: competition stress, functional and dysfunctional negative emotions, salivary biomarkers of stress.

Introduction

Competition stress is generally considered an ongoing transaction between the competition-related environmental demands and the individual physical and psychological (cognitions, emotions) resources (Lazarus, 2000; Neil *et al.*, 2011), which translates into behavioral responses as part of individual coping strategies. There are several studies on sport research focusing on the concept of competition stress and emotions experienced by athletes in relation to their upcoming performance,

especially on the significance of negative emotions as facilitative or debilitating factors of the competition performance (Neil *et al.*, 2011; Fletcher & Hanton, 2003; Mellalieu *et al.*, 2009). An impressive body of literature exists on the coping strategies in relation to perceived competition stress used by sport performers before and during the competition, such as cognitive strategies (i.e. blocking distractions) and emotion-focused techniques (e.g. use of humor, religious routines, social support, self-reflection, etc.; Neil *et al.*, 2011).

Although physical activity is associated with psychological, motric and sanogen effects, preparation for and the competition itself might be associated with psychological and physiological stress, which can be visible at level of endocrine functions (i.e. changes in salivary cortisol concentrations) and at levels of negative, positive emotions and the general level of perceived stress. A pertinent question is whether the psychological and physiological indicators targeted by us are parts of the same coping mechanism or are they parts of distinctive coping strategies, one related to the physical readiness of the body for the specific context of the competition (i.e. salivary cortisol) and the other one related to the general emotion regulation abilities of the individual (i.e. general level of the perceived stress, profile of emotional distress).

Psychological component of competition stress: Levels of negative functional and dysfunctional emotions and perceived stress

A recent qualitative investigation of the emotions experienced by athletes (Neil *et al.*, 2011) indicates that the interpretation of the negative emotions (e.g. anxiety) was related to other competition-related demands. On most of the occasions, sport performers positively interpreted their own emotions to increase their levels of motivation to perform well (i.e. increase in the levels of effort and concentration). These results point out the functional potential of negative emotions in different conditions, such as the competition stress. Therefore, based on the previous results on the sport research literature, we consider that emotions, especially the negative ones (i.e. as component elements of the competition stress), should be investigated from the perspective of their functional/dysfunctional significance.

An empirical analysis of the distinction between functional and dysfunctional negative emotions, as well as the construction of a psychometric instrument that classifies emotions on these two categories (i.e. the Profile of Emotional Distress) can be found in the study of Opris & Macavei (2005). The authors emphasized that the categorization of negative emotions as functional or dysfunctional is based on the binary model of distress (Ellis, 1962; 1994; David, Schnur & Belloiu, 2002). From the perspective of the binary stress model, the functionality of negative emotions is given by several factors, such as the subjective experiences and cognitions associated with the emotions and the behavioral consequences of these emotions (Ellis & DiGiuseppe, 1993; Opris & Macavei, 2005). Hence, the *dysfunctional negative emotions* can lead to experiencing pain and mental unease, can motivate a person to perform behaviors in contradiction to his/her goals or can prevent from engaging in goal-related behaviors; on the other hand, *functional negative emotions can* motivate a person to perform goal-related behaviors, which lead to personal growth); c) encourage the effective use of behaviors necessary to reach the personal goals (Dryden & DiGiuseppe, 2003; Opris & Macavei, 2005).

Several studies in the field of sport research indicate the impact of negative emotions in the motivational process of reaching the performance-related goals. Therefore we suggest that the negative emotions related to the competition stress should be addressed from the perspective of the two categories of functionality, i.e. dysfunctional negative emotions, which might debilitate the upcoming performance, while the functional negative emotions might facilitate the upcoming performance.

Generally, stress refers to the perceived or actual threat on physical and/or psychological homeostasis of the human body (Cohen & Williamson, 1988). The assessment of stress at individual level, including the competition stress, is usually approached in a multidimensional way: (1) the environmental approach referring to the occurrence of demanding events (stressors), (2) the psychological approach meaning the perceived by the individual stressfulness of an event or a particular stressor and (3) the biological approach that focuses on the biological elements of the stress response (Cohen & Kessler, 1997; Andreou *et al.*, 2011). The first two approaches are based on questionnaires and interviews. The most widely used questionnaire in studies measuring the general individual perception of the level of stressfulness of events is the Perceived Stress Scale (Cohen &

Williamson, 1988). This scale allows the assessment of the perception of stressful experiences (i.e. feelings and thoughts) over the previous periods of time (days, month). Most important, high global PSS scores have been correlated with high levels of biomarkers of stress, such as salivary cortisol in academic performance situations and in daily life situations (Malarkey *et al.*, 1995; Andreou *et al.*, 2011).

Physiological component of competition stress: Neurophysiological explanations and salivary biological markers

As already stated above, stress is a concept which can be seen as an adaptive mechanism to specific events and situations and is most often used to describe an unpleasant emotional state or condition which is characterized by subjective feelings of tension, apprehension and worry. In biopsychology, stress is generally considered a factor which bolsters coping mechanisms to environmental conditions. In sports-related context, stress is commonly known as competition stress or competition anxiety (Jhon *et al.*, 2010). Several studies indicate that acute and chronic competition stress induces hypothalamic-pituitary-adrenal (HPA) axis activation (Christian *et al.*, 2011), which can be associated with a remodeling of apical dendrites of CA3 neurons (Magariños *et al.*, 1998) and rate-modulator of adult neurogenesis (Magariños & McEwen, 1995, Magariños *et al.*, 1996).

The activation of HPA axis is demonstrated by increased levels of cortisol in individuals with high levels of competition stress. Overstimulation of the HPA axis induces adrenal activation followed by high blood (and salivary) concentrations of cortisol as a coping mechanism, which can lead to pathological status if the stressors are persisting. In other words, competition stress is a hippocampal-hipotalamyc-pituitary-adrenal (HHPA) axis stimulus, which leads to increases in stress-hormone concentrations (e.g. corticotropin-releasing hormone, adrenocorticotrop hormone, epinephrine, norepinephrine and glucocorticoids) in plasma and saliva (Grissom & Bhatnagar, 2009; Grundmann *et al.*, 2010). Glucocorticoids accelerate cellular metabolism to increase available energy resources, which consequently increases free radical formation in nervous system (Spiers *et al.*, 2013). Also, some investigations in sport research indicate that athletes produce higher levels of cortisol before games than before non-competition situations (Salvador *et al.*, 2003; Filaire *et al.*, 2007; Haneishi *et al.*, 2007). The results support previous findings of Filaire *et al.* (2009), where athletes were more anxious before the games than during off days. In this context, cortisol is secreted by adrenals as a result of a threatening stimulus and sports competition is considered an anxiety arousing situation (Jhon *et al.*, 2010).

The HHPA axis-response in competition stress involves two neuropsychological aspects: (i) the adaptation to environment conditions of the exhausted organism and (ii) integration of physiological stress and emotions in order to maintain a proper performance of the individuals in the upcoming competition. Having in mind these two aspects, we aim to investigate whether alpine skiing modulates cortisol concentrations in saliva samples in several moments of the competition. Specifically, we aim to collect saliva in the following three stages of an alpine skiing competition: (T1) before the individual slope descending, (T2) immediately after the slope descending and (T3) at the end of the skiing competition, when the final results are available to all the performers (Fig.1). Salivary cortisol level will be determined by ELISA method (Salimetrics, Cortisol ELISA Kit). According to Hasegawa *et al.* (2008) the salivary cortisol is a reliable indicator of the stress response to competition situation and it can be used to determine which performers are more capable of handling stress in a competitive environment.

Alpine skiing is a winter sport that includes individual descent of the snow-slopes through specified gates using skis with fixed hell ties. During alpine skiing competition, the participants find out the final results only at the end of the panel. Therefore, we consider that this type of sport competition is an excellent proxy for distinctively assessing the stress components (psychological and physiological components) related to the individual performance and to the competition as a whole event. In this light, we propose a comprehensive and multidimensional model of data collection in alpine skiing competition, as it is presented in Figure 1: (1) psychological data collection on general level of the perceived stress and functional/dysfunctional negative emotions (pre- and post-competition) and (2) biological data collection (salivary cortisol), i.e. saliva collected before the individual descent (T1), after the individual descent (T2) and after the panel results (T3).

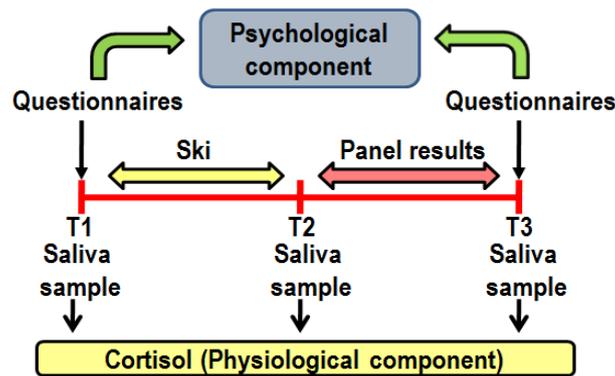


Fig. 1. Experimental design proposed for the assessment of the psychological (general level of perceived stress, functional/dysfunctional negative emotions) and physiological (salivary cortisol) components of the competition stress in alpine skiers

Conclusions

We consider that, besides the assessment of the functional and dysfunctional negative emotions as important psychological component of the competition stress, the general level of perceived stress should be also taken into consideration when addressing the perception of a sport competition as a whole. It is important to mention that in several sport competitions, such as alpine skiing, one can assume that the competition stress diminishes only after the panel results are communicated, not when the individual finishes his/her individual performance. Even though the salivary concentrations of cortisol might show a time-dependent variation according to competition phases, in relation to several psychological variables (general level of perceived stress, expectancies related to the competition etc.). However, stress evaluation by biochemical assay and questionnaires might point to the direction that skiing actually modulates the stress reactivity of the organism. Further, these observations may be used in the workout planning and psychological preparation of the skiers.

Acknowledgment: This research project was supported by an Excellence Fellowship awarded to E.B., A.B. and P.C. by the Student College of Academic Performance of Babes-Bolyai University, Cluj-Napoca, Romania.

References

- ANDREOU, E.C., ALEXOPOULOS, C., LIONIS, L., VARVOGLI, C., GNARDELLIS, G.P., CHROUSOS, G.P., & DARVIRI, C., (2011), *Perceived stress scale: Reliability and validity study in Greece*. International Journal of Environmental Research and Public Health, 8:3287-3298.
- CHRISTIAN, K.M., MIRACLE, A.D., WELLMAN, C.I., & NAKAZAWA K., (2011), *Chronic stress-induced hippocampal dendritic retraction requires CA3 NMDA receptors*. Neuroscience, 174, 26-36.
- COHEN, S., WILLIAMSON, G., (1988), *Perceived Stress in a Probability Sample of the United States*. In: Spacapan S, Oskamp S, editors. The Social Psychology of Health: Claremont Symposium on Applied Social Psychology. Sage; Newbury Park, CA, USA.
- COHEN, S., KESSLER, R.C., (1997), *Measuring Stress: A Guide for Health and Social Scientists*. Oxford University Press; New York, NY, USA.
- DAVID, D., SCHNUR, J., & BELLOIU, A., (2002), *Another search for the "hot" cognitions: Appraisal, irrational beliefs, attributions, and their relation to emotion*. Journal of Rational-Emotive and Cognitive-Behavior Therapy, 2:93-131.
- ELLIS, A., (1962), *Reason and emotion in psychotherapy*. New York: Lyle Stuart.
- ELLIS, A., DIGIUSEPPE, R., (1993), *Are inappropriate or dysfunctional feelings in rational-emotive therapy qualitative or quantitative?* Cognitive Therapy and Research, 17:471-477.
- FILAIRE, E., ALIX, D., ROUVEIX, M., & Le SCANFF, C., (2007), *Motivation, stress, anxiety and cortisol responses in elite paragliders*. Perception and Motor Skills, 104:1271-1281
- FILAIRE, E., SAGNOL, M., FERRAND, C., MASO, F., & LAC, G., (2009), *Psychophysiological stress in judo athletes during competitions*. Journal of Sports Medicine and Physical Fitness, 41:263-268.

- FLETCHER, D., HANTON, S., (2003), *Sources of organizational stress in elite sports performers*. The Sport Psychologist, 17:175-195.
- GRISSOM, N., BHATNAGAR, S., (2009), *Habituation to repeated stress: get used to it*. Neurobiology of Learning and Memory, 92(2): 215-224.
- GRUNDMANN, O., LV, Y., KELBER, O., & BUTTERWECK, V., (2010), *Mechanism of St. John's wort extract (STW3-VI) during chronic restraint stress is mediated by the interrelationship of the immune, oxidative defense, and neuroendocrine system*. Neuropharmacology, 58:767-773.
- HANEISHI, K., FRY, A.C, MOORE, C.A., SCHILLING, B.K., & Li, Y., (2007), *Cortisol and stress responses during a game and practice in female collegiate soccer players*. Journal of Stress Research, 21:583-588.
- HASEGAWA, M., TODA, M., MORIMOTO, K., (2008), *Changes in salivary physiological stress markers associated with winning and losing*. Biomedical Research, 29(1):43-46.
- JOHN, S., VERMA, S.K., & KHANNA, G.L., (2010), *The effect of music therapy on salivary cortisol as a reliable marker of pre competition stress in shooting performance*. Journal of Exercise Science and Physiotherapy, 6(2):70-77.
- MAGARIÑOS, A.M., MCEWEN, B.S., FLÜGGE, G., & FUCHS, E., (1996), *Chronic psychosocial stress causes apical dendritic atrophy of hippocampal CA3 pyramidal neurons in subordinate tree shrews*. Journal of Neurosciences, 6(10):3534-3540.
- MAGARIÑOS, A.M., MCEWEN, B.S., (1995), *Stress-induced atrophy of apical dendrites of hippocampal CA3c neurons: Involvement of glucocorticoids secretion and excitatory amino acid receptors*. Neuroscience, 69(1):89-98.
- MAGARIÑOS, A.M., ORCHINIK, M., & MCEWEN, B.S., (1998), *Morphological changes in the hippocampal CA3 region induced by non-invasive glucocorticoid administration: a paradox*. Brain Research, 809:314-318.
- MALARKEY, W.B., PEARL, D.K., DEMERS, L.M., KIECOLT-GLASER, J.K., & GLASER, R., (1995), *Influence of academic stress and season on 24-hour mean concentrations of ACTH, cortisol, and beta-endorphin*. Psychoneuroendocrinology, 20:499-508.
- MELLALIEU, S. D., NEIL, R., HANTON, S., & FLETCHER, D., (2009), *Competition stress in sport performers: stressors experienced in the competition environment*. Journal of Sports Sciences, 27:729-744.
- NEIL, R., HANTON, S., MELLALIEU, S.D., & FLETCHER, D., (2011), *Competition stress and emotions in sport performers: The role of further appraisals*. Psychology of Sport and Exercise, 12:460-470.
- OPRIS, D., MACAVEI, B., (2005), *The distinction between functional and dysfunctional negative emotions. An empirical analysis*. Journal of Cognitive and Behavioral Psychotherapies, 5 (2):181-195.
- SALVADOR, A., SUAY, F., GONZALEZ-BONO, E., & SERRANO, M.A., (2003), *Anticipatory cortisol, testosterone and psychological responses to judo competition in young men*. Psychoneuroendocrinology, 28:264-375.
- SPIERS, J.G., CHEN, H.J., BRADLEY, A.J., ANDERSON, S.T., SERNIA, C., & LAVIDIS, N.A., (2013), *Acute restraint stress induces rapid and prolonged changes in erythrocyte and hippocampal redox status*. Psychoneuroendocrinology, 38:2511-2519.

KINETOTHERAPY SECTION

EVALUATION COMMITTEE:

Professor Alina-Mihaela Stoica PhD

Professor Ioan Lador PhD

Oana Maria Ganciu

MEDICAL GYMNASTICS AND THERAPEUTIC SWIMMING, WAYS TO IMPROVE THE
QUALITY OF LIFE

Daniela Pirvulescu Popa, Mircea Neamțu

OPTIMUM RECOVERY FROM CERTAIN TRAUMAS THROUGH AQUAGYM

Mircea Slăvilă

PROPHYLACTIC STRATEGIES FOR OVERWEIGHT PATIENTS

Mircea Slăvilă, Alexandra Slăvilă

STUDY ON PARTICULAR RECOVERY METHODS FOR OSTEOARTHRITIS, SPECIFIC TO
THIRD AGE PEOPLE

MEDICAL GYMNASTICS AND THERAPEUTIC SWIMMING, WAYS TO IMPROVE THE QUALITY OF LIFE

Gimnastica medicală și înotul terapeutic, modalități de ameliorare a calității vieții

OANA MARIA GANCIU^{1, a*}

University of Bucharest, Romania

Corresponding author: * ganciuoana@yahoo.com

Abstract

Introduction. The research purpose is to highlight the impact of the specific means of medical gymnastics, the quality of life of students of the University of Bucharest and to follow certain parameters of quality of life that can be influenced as a result of the implementation of programs of kinesiology.

Methods. An experiment was used ameliorative. A group of 30 subjects, aged 18-25 years participated weekly for 8 months to 2 sessions of and medical gymnastics and therapeutic swimming one session lasting 50 minutes.

Results. As a result of the specific systematically physical therapy exercises, there were changes in the mobility of the spine, the differences between measurements at the start and after 8 months is statistically significant at a threshold of $p < 0.001$.

Keywords: students, kinetotherapy, quality of life.

Introduction

Having a healthy life is a quality of life. It is well-known that a good health condition is one of the components of quality of life, that ensure self-confidence, safety and resources for social and professional demands, but not the personal ones. (Grigore, V., 2007).

This paper is part of a larger study that wants to investigate the influence of physical activity (different forms) on the quality of life in students (subjective indicators).

The paper revives the problem of static spine disorders, addressed for the first time in our country by the famous prof. dr. A. Ionescu, at a time when statistics show an alarming increase of these physical disabilities at all ages, but especially in children and adolescents.

Therefore, early detection and appropriate therapy are able to stop the evolution towards structural shapes and gain correction.

Among the disorders of static postural or spinal cord, we mention: scoliosis, kyphosis, kyphoscoliosis, hyperlordosis and possible combinations of these.

The basic method to correct physical deficiencies is a corrective exercise. It should tone the muscles that provide the necessary force to maintain the position of the affected segment and the right attitude, while acting on the nervous system at which recovery is achieved stereotyping and automation movement and correct posture.

Methods of research used were:

- Documenting by studying specialized material.
- Experimental method. The purpose of the experiment carried out is to relieve symptoms, so that is aimed at increasing efficiency of the process advisory-educational.
- Measurement Method and testing was needed to objectiveness of all processes, and other variables subject to scientific research.
- The method statistico-mathematics. Data obtained by tests and measurements were analysed and interpreted using this method. (Tudor, V.).
- The method for charting purposes allowed me expression of processed data to the findings and results. I used graphs too as forms of analysis of the research results.

Hypothesis

Hypothesis by treating therapist combination of gymnastics and swimming therapeutic efficiency of recovery will be higher and there would be an improvement (correction) of posture and functional parameters, contributing to improved quality of life.

Research organization

The research was carried out in the sports halls of the University of Bucharest, with 30 young entered in the course of decades, during the period October 2014 - May 2015, broken down into three stages: in the first step, somatomotor assessment, second step, the progress of the program of work kinetoterapeutica, the last stage has been processed test data and have interpreted the results obtained.

The subjects of the experimental group attended weekly for 8 months to 2 sessions of physiotherapy and therapeutics wimming one session, lasting 50 minutes.

To determine effectiveness of the work of the differentiated group carried out experimental (20 young), we used a control group (20 young), which chose the lesson decades traditional, by the course.

Training project developed under the issued assumption comprises medical gymnastics and therapeutic swimming programs.

Functional assessment tests were following the table of contents for measuring and evaluating posture. and amplitude of movement .

At the beginning and the end of the recovery period were carried out the same tests:

Examination of the lumbar spine mobility included the following tests:

- the sign of Ott, (via maximum of the trunk flexia distance between the two marks is increased by 3-3.5 cm).
- the sign Schober; (via maximum of the trunk flexia distance between the two marks is increased by 5 cm).

Kinetotherapeutic program has three parts as starting points:

- Local postural re-education;
- Restoring suppleness;
- Regaining strength.

The kinetotherapist programme has as starting points three marks:

- recovery treatment in addition to labor classic, charged on land, in physical shortcomings, either globally, or segmentation, it is recommended that, due to its valentelor multiple aquatic, and recovery.

The results

For the purposes of the review results obtained has been calculated the arithmetic mean of parameter values subjects. As a result of the application of experiment have been following changes:

Table 1. Average values of Schober test

Schober Test	T1	T2	T. dependent	P value
Experimental Group	2,68	4,65	2,86	< 0,05
Witness group	2,70	3,43	1,06	> 0,05

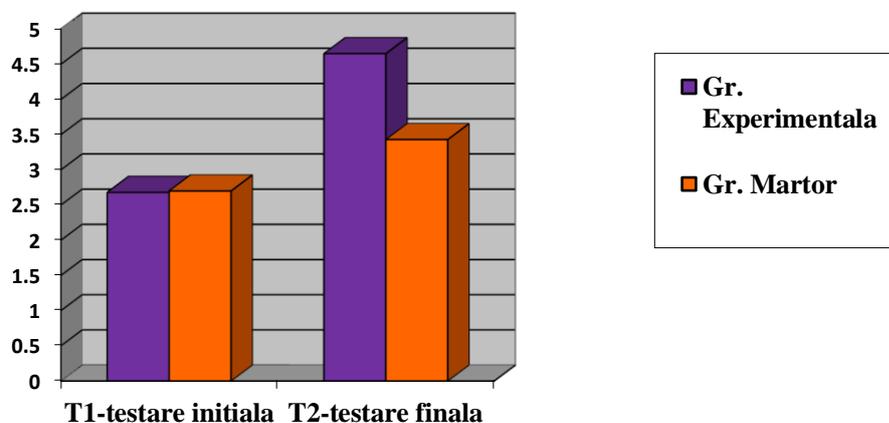


Fig. 1. Average values of Schober test

Average Values initial – very similar in both groups; the final typing is observed in significant differences between the two groups: 4.65 in front of experimental group by great group warning. The degree of homogeneity is high in both groups. The experimental group showed a significant increase between the final testing and initial (p 0,05). It is accepted a hypothesis of zero for both groups.

Table 2. Average values of Ott test

Ott Test	T1	T2	T. dependent	P value
Experimental group	2,52	4,70	2,79	< 0,05
Witness group	2,48	3,83	1,12	> 0,05

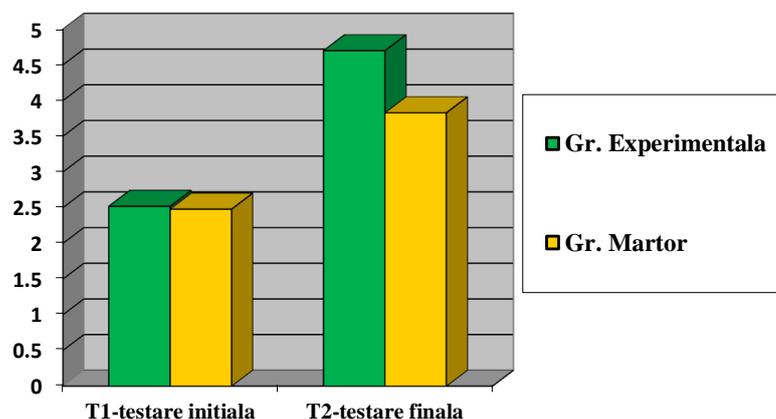


Fig. 2. Average values of Ott test

The initial testing average values are similar in both groups; the final typing is observed significant differences between the two groups: 4.70 in experimental group compared to \$4.58 per test group. Degree of homogeneity is high in both groups. The experimental group is found a significant increase between the final testing and initial (p 0,05). It is accepted hypothesis of zero for both groups.

Conclusions

Conclusions can be drawn from the results obtained from the execution of experiment, highlight following conclusions:

Means of kinetherapeutics used contribute to maintaining functional parameters to limits close to normal.

Due influences which they exert on body, swimming is considered one of the most important means of achieving the objectives of the physical education and sports, but also of the kinetherapy.

The selection of the most efficient means of corrective gymnastics (in their various forms) and swimming in lessons of physical education and sport in higher education, as well as judicious and dosage for their conduct toward achieving higher levels of perception of the quality of life.

References

- CORDUN M., (1999), *Kinetologie Medicală*, Editura AXA, București.
- CIRLA L., (1997), *Înotul – mijloc asociat al kinetoterapiei*, Editura Caritas, București.
- CLARANCE D., (1999), *Hidroterapia*, Ed. Viață și sănătate, București.
- DUMITRU, D., (1984), *Reducerea funcțională în afecțiunile coloanei vertebrale*, Ed. Sport-Turism, București.
- FOZZA, C.A., (2000), *Îndrumar pentru corectarea deficiențelor fizice*, Ed. Fundației România de mâine, București.
- GRIGORE, V. (coord), (2007), *Exercițiul fizic – factor activ pentru prevenirea îmbătrânirii și instalării bolilor degenerative*, Editura Didactică și Pedagogică, București.
- POPOVICI, A., DRĂGAN, I., (1982), *Dezvoltarea fizică și deficiențele fizice în medicina sportivă*, Ed. Sport-Turism, București.
- SBENGHE, T., (2005), *Kinesiologie știința mișcării*, Ed. Medicală, București.
- SIDENCO, E.L., (2005), *Coloana vertebrală și membrul inferior*, Ed. Fundației România de mâine, București.
- TUDOR, V., (2005), *Măsurare și evaluare în cultura fizică și sport*, Ed. Alpha, București.

OPTIMUM RECOVERY FROM CERTAIN TRAUMAS THROUGH AQUAGYM

Optimizarea refacerii și recuperării unor traumatisme prin activitatea Aquagym

DANIELA POPA PÎRVULESCU¹, MIRCEA NEAMȚU^{2A*}

^{1,2} *University Transilvania of Brasov, Romania*

* Corresponding author: mircea.neamtu@unitbv.ro

Keywords: gymnastics in water; effort; effort typology.

Introduction

Aquagym (gymnastic in water) represents an innovating method of the motility education technology that can be applied and adapted to age related particularities, trauma typology and to the level of training. Gymnastics in water can be considered as the sum of varied exercises implying very precise and efficient movements in a reduced gravity environment where ample movements can be executed more easily. Furthermore, by executing the exercises to the rhythm of background music we can enhance our psychic comfort.

Contents

The activity studied in the research process refers to the use of exercises for recovery from traumas studied by students majoring in Physiotherapy in various recovery centers and the use of the said exercises adapted to the aquatic environment. Executing the exercises on the students' bodies and on the bodies of patients is a better way to understand the effects of the means used.

The Objectives

The objectives of these programs should aim at ensuring autonomy in aquatic environments the search for a way to shape activity structures for enhancing or improving the physical condition of humans, for securing self-esteem and better relations with the people around us. At this age (students' age) it is permitted to use a utilitarian learning approach construed as a set of working techniques in an aquatic environment adapted to different exercising periods (short, long) depending on the characteristics of the recovery process. The complexity of the means used, judiciously combining intensity and volume, the amplitude of the movement ensure adequate execution with demanding effort (Delgado, C.; Delgado, S., 2001). As regards the recovery (biological, trophic rebalancing) it is an important aspect of the evolution of performances either in the field of sports or in the recovery process after physical traumas. I. Dragan 2001 defined recovery as « the energetic preparation of the body short of fuel either after a physical effort or under the influence of biological agents». Guided recovery comes as a supplement to the natural, spontaneous recovery.

The study dealt with both recovery and recuperating means used in the aquatic environment (swimming pool). Aquagym using a variety of means borrowed from gymnastics, swimming, stretching, various games all performed in shallow water pools ensures comfort and stability while the musical background offers a touch of entertainment (Macovei, S.; Visan, A., 2003). The mechanism of aquagym can be compared with a giant cushion which reduces muscle and joint wear this minimizing the risk of injuries.

Experiment

The two month activity was carried out by a batch of 12 3rd grade students in Physiotherapy who worked in a shallow water pool using a set of means structured on the various afflictions or on props necessary in the recuperating process after long and difficult effort. After familiarizing the students with the structures and after performing a few corrections in the selection of the means the study was actually started on patients (athletes and patients undergoing post trauma recovery) (Rosdriquez, A., 2004; Sova, R., 1993). The students worked in parallel (actual work in the swimming pool) with the patients assigned to them using the applied structures.

The duration of the activity was established by the physician and there were subjects who, acknowledging the benefits of the exercises, expressed their wish to continue the exercises after the recovery process completion date. The activity was scheduled over a period of three months (December, January, February). Differentiated working systems were used for a number of 36 patients in recovery programs and 8 highly performing athletes.

Result interpretation

More than 64% of the patients which entered the study program presented a faster and more ample recovery in the treated joints, and less than 36 % - recovery was slower.

Table 1. *Patients who participated in the study for Recovery*

Values Obtained	Patients who participated in the study for Recovery
64%	Recovery was faster
36%	Recovery was slower

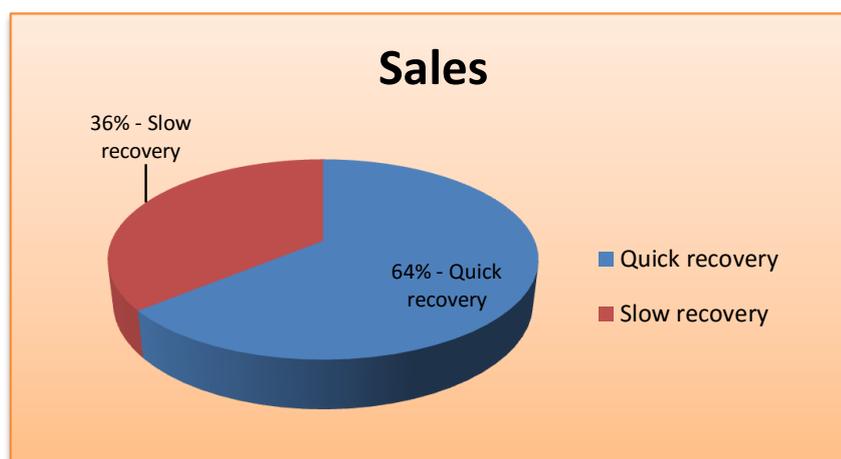


Fig. 1. *Patients who participated in the study for Recovery*

From the 8 patients who were treated for shoulder problems caused by various traumas, 7 have resumed percentage 87% of the mobility allowing them to go trouble free about their daily routine 1 case - has not returned to work.

Table 2. *Shoulder Recovery after various injuries*

Values Obtained	Shoulder Recovery after various injuries
7 cases	They return to the activity in percentage off 87%
1 case	They didn't return to the activity



Fig. 2. *Shoulder Recovery after various injuries*

The patients that were treated for wrist problems stated 100% recovery although most cases were complicated fractures. The participation in the activities was conscientious and active and 78% of the persons asserted their wish to continue the Aquagym activities, the other 22 % lack of time , could not continue the action.

Table 3. *Participation in activities was more active and conscious*

Values Obtained	Participation in activities was more active and conscious
44%	Interested to work performance and in-depth study
44%	Eager to continue action
12%	They could not continue the action

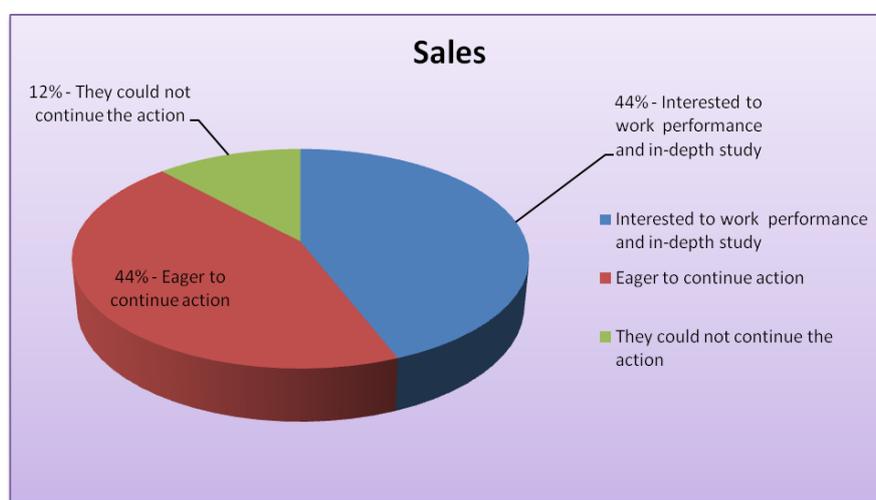


Fig. 3. *Participation in activities was more active and conscious*

At least 32% of the participants showed their satisfaction with the developed team spirit and declared that they have made good friends. 92% of the subjects stated that they have perceived the activities easily and appreciated the short duration of the treatment, 8% expressed no opinion.

Table 4. *Participants were satisfied with the activity Aquaggym*

Values Obtained	Participants were satisfied with the activity Aquaggym
92%	The activity was perceived easier and shorter time charged
8%	No expressed opinion

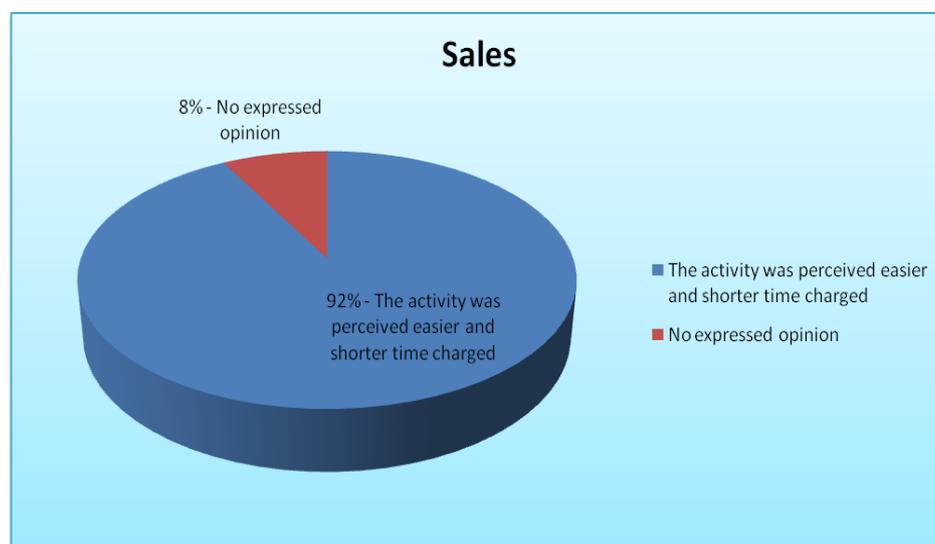


Fig. 4. *Participants were satisfied with the activity Aquaggym*

Through their respective levels of performance the athletes demonstrated the beneficial effect of the proposed Aquagym activities. The footballers also showed a better muscle mobility.

No assessment tests were performed on the athletes. The results were appreciated only by comparison with the way they carried out their training (degree of response to effort).

Conclusions

- the students, at the same time subjects and doers, benefitted from a practical activity which yielded valuable data for the future patients;
- the patients benefitted from an easy, shorter and more efficient recovery procedure;
- the work with the patients was more pleasant both for the specialists and for the patients.

References

- ADAMI, R., (2004), *Aquafitness*. Ed.Tehniche Nuove, Milano.
- BARBOSA, T.M., QUEIROS, T., (2005), *Manual practica de Actividades Aquaticas e Hidrogimnastica*. Lisabona, Publicatioes Deportivas.
- DELGADO, C., DELGADO, S., (2001), *A practica da Hidroginastica*. Ed.Sprint, Rio de Janeiro.
- MACOVEI S, VISAN A., (2003), *Gimnastica aerobica de intretinere*. Ed. Afir București.
- SOVA, R., (1993), *Ejercicios acuaticos Barcelona*, Ed. Paidotribo.

PROPHYLACTIC STRATEGIES FOR OVERWEIGHT PATIENTS

Strategii-profilactice-pentru-pacienții-supraponderali

MIRCEA SLĂVILĂ

„Sf. Luca” Hospital of Chronical Disease, Romania

e-mail: mirceaslavila@yahoo.com

Keywords: prophylactic concept, overweight patients, rational nutrition

Introduction

The means the sum of all medical and other measures required to prevent the appearance of obesity. The prophylactic strategies in obesity addressed in this paper, make reference to kinetoprofilaxy trough physical exercise harmonised with rational nutrition and psychopedagogical procedures.

Rational nutrition combined with physical exercise prevents not only obesity, but also other more serious diseases.

The current levels reflected in specialised papers

Nowadays, 66% of US population and 50% of romanian population are overweighed and obese.

World Health Organization is concerned with this problem and states that the most feared 21st century killer is obesity. Nowadays, for the first time in the history of humanity, the frequency of obesity is greater than the one of malnutrition. The World Health Organization has provided data that shows that 40-60% of the people with second type of diabetes have arterial hypertension. 60-90% of the people who have second type of diabetes are or they were obese and the arterial hypertension contributes in a greater way to the cardiovascular morbidity and mortality (Campbell T.C.2007).

The World Health Organization also shows that, due to the increase in sugar and animal fats consumption, corroborated with a decrease in physical exercices, in the years 1980-2002, the frequency of obesity has increased more than three times in North America, England, Western Europe, Australia, China and South Asia.

Obesity, arterial hypertension and cardiovascular diseases form a vicious triangle. We must take into consideration that every kilogram gained shortes one’s life with 2 months, so a surplus of 30 kilograms costs at least 5 years of life (Balaceanu-Stolnici C. 1998).

The paradox of the 21st Century with respect to health is the fact that meanwhile millions of persons are deprived of the necessary food in order to survive, a billion persons are overweight and over three hundred millions are obese, showing different types of diseases caused by abundant diet.

This is the result of economic inequality, corruption and war (Campbell T.2014).

Issues addressed

The medical science is changing continuously.

„The medical science changes in the same time as the citchen.” (Montesquieu).

The obesity is a nutritional-metabolic disease characterized by an excess in weight greater than 20% of the ideal weight. Specialists have reached the conclusion that nowadays the main problem is obesity. In the past, obesity was a rare problem, found only at persons with a high genetic susceptibility or who had access to abundant food.

The 3 greatest deficiencies that lead to obesity are: over diet, sedentary life and over exertion. The computer and the TV caused lot of hours of sedentary life daily and the existence of possibility to communicate over the internet spares us even from the effort of talking.

Causes of obesity:

- Genetic causes.
- Environmental factors.
- Diet Factors.
- Medication.

Treatment of obesity must be done taking into consideration the standards with respect to severe affections.

Obesity can be prevented and treated taking into consideration the Triangle of Health:

1. Vegetarian Diet.
2. Physical Exercise-kinetotherapy.
3. Psychological Exercise.

The first important element in the treatment of the obesity is the diet. One must reduce the intake of fats and elements like sugar, honey, sweets, food which contain wheaten flour and chocolate.

Alcohol in any form must be avoided, because 1 gram of alcohol contains 7 calories, wich is somewhat fewer than 1 gram of fat.

Only by modifying one's diet, one cannot obtain a sufficient decrease in weight.

I. Vegetarian Diet. Vegetables, fruits and integral cereals must be consumed raw or prepared without adding fats. This is the most efficient method of fighting with obesity and maintaining a strong health. (Bojor O.2004). The training of will represents a very important factor in approaching such a diet, because the gustative papilla adjust with the new diet after approximately 10 days.

The same quantity of food consumed in the morning doesn't lead to the same increase in weight as in the case of the same consumption in the evening, because during the day the activity of the sympathetic nervous system favors burning of fats, catabolism and energy consumption. During night the activity of the parasympathetic nervous system is predominant, which favors anabolism, building of organism or energy deposits.

The perseverance is the key of the success.

II. The second most important element in treating obesity is physical activity, without wich success cannot be reached. Kinetotherapy is a valuable method of both prevention and treatment of psychical depression. Kinetotherapy is in fact a catalyst for the reheabilitation process(Sbenghe T. 1981).

Kinetotherapy leads to:

1. Muscle Strengthening
2. Articulation mobility
3. Learning correct breathing
4. Rectifying the secondary

It is recommended that the Kinetotherapy program respect certain rules:

1. The Kinetotherapy programs must be tailor-made.
2. The Kinetotherapy programs must take into consideration other possible deficiencies.
3. In order to strengthen and increase the muscular mass there must not be used hard weights (the weights must be adjusted with concern to sex, age and weight).
4. Endurance exercices will alternate with easy exercices in order to increase the mobility of all the segments.
5. During breaks, patients must be subject to exercices of relaxation and respiration.
6. After finishing the Kinetotherapy session it is recommended that the patient relaxes with psychopedagogical methods, like sauna, massage, hydrotherapy, Mel therapy, and so on.
7. The continuity of the program.

Kinotherapy goals:

1. The improvement of the general movement capacity and the improvement of the great functions.
2. The prevention of the deficient compensatory behavior.
3. Stimulation of the physical condition.
4. Normal weight.

Applied physical exercises:

1. Exercises with decreasing endurance.
2. Exercises with increasing endurance.

Indication:

1. Total or progressive regaining of normal weight.
2. Increasing articulation mobility.
3. Muscular relaxation.
4. Partial or total retraining of effort.

Contra indications:

1. Arterial hypertension
2. Breathing deficiencies corroborated with a low vital capacity
3. Tuberculoses
4. Infected wounds, skin contagious diseases.

III. The third element is the psychological factor. Taking into consideration that „the human being is considered a complex cybernetic system, characterized by the capacity of self-adjustment and self-organization; the adjustment mechanisms of the psychological conditions are very important in both the theoretic-applicable level and practical-applicable level.” (Holdevici, I. 1993), we can assert that the maximum productivity and the optimum behaviour in athletic activity cannot exist without enhancing the value of physical and psychological resources. Adjustment and self-adjustment of the psychological moods implies a series of complex and interrelated processes, which lead to (Slavila M. 2005).

- a. the control of emotions and implicitly education of the mental stability.
- b. the control and mobilization of the intellectual capacity.
- c. the capacity of maximum volitional engagement in a certain activity.
- d. the general motivational and energetic mobilization of the organism in order to respond to the demands of the situation.
- e. the kinesthetic mobilization according to the proposed requirements.

In order to train the psychic factor there are used psychopedagogical methods:

- Mental training.
- Suggestion – autosuggestion.
- Positive thinking.
- Relaxation.
- Breathing and relaxation.
- Hypnosis.
- Autohypnosis.
- Visualization and so on.

Conclusion

Using the triangle of health, we can overcome the premature decrease of the muscular mass and force and the premature appearance of obesity.

References

- BOJOR, O., (2004), *Fitoterapie tradițională și modernă*, Ed. Fiat Lux.
- BĂLĂCEANU-STOLNICI, C., (1998), *Geriatrică practică*, Ed. Medicală Amaltea, București.
- CAMPBELL, C. , CAMPBELL II, T., (2007), *Studiul China*, Casa de Editură Advent, Râmnicu-Vâlcea.
- SBENGHE, T., (1981), *Kinetologie profilactică, terapeutică și de recuperare*, Ed. Medicală, București.
- HOLDEVICI, I., (1999), *Gândirea pozitivă – Ghid practic de psihoterapie rațional-emotională și cognitiv-comportamentală*, Ed. Știință și Tehnică, București.
- HOLDEVICI, I., (1995), *Sugestiologie și psihoterapie*, Ed. Victor.
- SLAVILA, M., (2005), *Autosugestia, metoda psihopedagogică utilizată în recuperarea diferitelor traumatisme din artele marțiale* //American-Romanian Academy of Arts and Sciences; The 26-th annual ARA Congress; Chisinau, Rep. Moldova.
- DUMITRESCU, R., ADUCOVSCI, D., SAKIZLIAN, R., SAKIZLIAN M., SLĂVILĂ, M., (2013), *Starea de bine=sanatate, combinația ideală între nutriție, refacere și activități fizice*, vol I-II, Ed. Universității din București.

STUDY ON PARTICULAR RECOVERY METHODS FOR OSTEOARTHRITIS, SPECIFIC TO THIRD AGE PEOPLE

Studiu privind metode de recuperare speciale pentru osteoartrită, specifice persoanelor de vârstă a treia

MIRCEA SLĂVILĂ^{1*}, ALEXANDRA SLĂVILĂ²

¹„Sf. Luca” Hospital of Chronical Disease, Romania

²Statistics

*Corresponding author: mirceaslavila@yahoo.com

Abstract

Background. The physical therapy is essential for the articular functionality, in cases like knee arthritis disease. In the knee recovery I have been using methods like physical exercise, electrotherapy and massage.

Objectives. In osteoarthritis, the cartilage in the knee joint gradually wears away. As the cartilage wears away, it becomes frayed and rough, and the protective space between the bones decreases. This can result in bone rubbing on bone, and produce painful bone spurs. Osteoarthritis develops slowly and the pain it causes worsens over time.

Methods. The main goal of any therapy for patients with knee osteoarthritis in most cases is to reduce pain and improve the physical functioning.

Results. In the process of recovery it can be used medicamentation, thermotherapy, electrotherapy, physiotherapy, balneoteraphy, hydrotherapy, ergotherapy.

Conclusion. Physical therapy can help to reduce the pain, swelling, and stiffness of knee osteoarthritis, and it can help improve knee joint function. Working out muscles in the leg can help make the knee joints stronger. Strengthening these muscles alone can help decrease the pain of knee osteoarthritis. Because knee osteoarthritis often makes it hard to move, flexibility exercises are very important. Doing them regularly can help increase range of motion, make the knees more flexible.

Keywords: physical therapy, physiotherapy, massage, osteoarthritis.

Introduction

Osteoarthritis is a degenerative affection localized at the knee joint level, without being an invalidated arthrosis as cox-arthritis. If it is not treated, it ends up producing serious injuries in an alert pace, evolving to a partial or total blocking of articular movements. When it comes to gender, osteoarthritis affects both women and men, but for women the percentage is higher, of roughly 64%, the disease beginning especially after menopause, meaning between the ages 40-70. Epidemiologic studies show that over 80% of the persons above the age of 60 present degenerative modification in one or more of the joints, which reduces their daily activities, more exactly reduced work ability.

Three main joints are localized at leg level: hip joint, knee joint and ankle joint. The knee has the largest intermediary joint, having multiple roles. Being involved in several diverse daily activities, the knee offers stability during walking, offers balance and support while standing and helps in rising the leg. It also supports going up and down the stairs, sitting down and lifting objects (Baciu C. 1977).

The installation of the degenerative process at knee level takes place when an imbalance exists between the resistance of the structures which compose the articulation and the degree at which the structures are used. More exactly, when a predisposition exists, the degradation of the joint is directly proportional with the level at which these structures are used.

With respect to the third age persons, the stage of the osteoarthritis can be evolved, the joint being significantly affected (Constantin B. 1997).

Being the largest in the human body, the knee joint is composed of two joints, the femoral-tibia and the patellar-femoral, which acts as one. The joint extremities of the knee are represented by the surfaces of the articular joints of the femoral condyles and femoral trochlea, upper tibia epiphysis -

tibia plateau with the two joint faces of tibia condyle slightly concave and oval, inter-condylar eminence unites them (Ifrim M 1977). At the knee level the fibrocartilaginous menisci appear, at the edge of the articular surfaces of the tibia condyles, to achieve congruence in extremity joints. There are two menisci intraarticular – an external one shaped as the letter O and internal one shaped as the letter C. The menisci are mobile in articulation, being movable together with the femoral condyles on the articular surfaces of the tibia condyles. The exterior of the meniscus is vascularized, the internal surface being avascular. At the knee level, there are both passive as well as active bonding means. By means of passive union we understand: the joint capsule, patellar tendon, ligament (arcuate popliteal, oblique popliteal, fibular collateral, collateral tibia, posterior crossed anterior extern and posterior intern), synovial fluid. The synovial fluid plays a crucial role in all joints, being produced mainly by movement: feeding the articular cartilage, cleansing of cellular debris, lubrication of articular surfaces, i.e. hyaline cartilage that covers them, favoring sliding joint surfaces to each other, without causing injuries. The means of active union are represented by musculature: abductor, adductors, flexors, extensors. Speaking strictly in the knee region, the quadriceps muscle consists of 4 beams: right femoral, medial vast, lateral vast, intermediate vast, ensures extension of the leg on the thigh and stabilizes the knee in extension. In osteoarthritis, one of the recovery objectives is to achieve full extension of the leg on the thigh, to secure the knee in motion, quadriceps muscle being the one that locks the knee during active movement.

The emergence of primary osteoarthritis is related to a number of endocrine factors (ovarian failure, menopause), metabolic - two out of three patients are overweight (obesity alters the articular cartilage through overloading), vascular - varices, while the emergence of secondary osteoarthritis is linked to various joint misalignments like genu varum or genu valgus (misalignment of axis femoral-tibia axis with consecutive requests in varum or valgus constitutes a mechanical stress which can initiate arthritis, osteoarthritis being four times more common in those with genu varum or valgus than in those with a normal femoral-tibia axis), ligament instability (forces acting on surfaces extremity joints are no longer evenly distributed), previous injury where the bone was targeted, damage to the meniscus, misalignment of the patellar device (patellar dysplasia, dislocations, patellar subluxations), inflammatory joint chronic arthritis: for example poli-arthritis. Another determining factor would be the biomechanical changes caused by flat feet, dislocations or subluxations of hip. The emergence of osteoarthritis can be also attributed to genetic factors triggers (fragile articular cartilage, prone to degradation).

The two knee joints can be affected separately or together (most frequently at the third age), when articular cartilage lesions appear. The onset of the disease is insidious, pain being the main symptom of mechanic type, which occurs during daily activities of every kind, calming itself at rest (the pain does not stop in terminal stage and the patient is found in joint functional incapacity, when the lead role is attributed to orthopedic surgery through applying a prosthetic knee). The pain is felt in the front or internal anterior knee, posterior in the popliteal space, or with radiation from the knee to the calf (Cretu A. 2003).

The functional deficit which appears is represented by: joint instability, joint mobility and limiting pathological mobility. In case of joint instability of muscular cause, increase strength through physical therapy is essential. In case of joint instability with articular incongruity, physical therapy is not efficient. For geriatric patients in osteoarthritis stage 2 evolved, limiting the mobility of the knee is imminent. Flexion can reach up to 90 degrees, associated with a flex of the knee. Hypotrophy and hypotrophy of the quadriceps femora causing instability in walking and other activities appears, requiring active mobilization of the knee. Crepitus intensifies, radiographic being able to notice pinching of the articular interlining, surfaces osteo-sclerosis of the bone extremities. The patient will cross geriatric chronic periods, alternated with bouts of acute inflammation that occurs with exacerbated pain and a marked limitation of joint amplitude. In these outbursts, the hypersecretion of inflammatory synovial fluid is present, which deforms the knee (Constantin B. 1997).

Research objectives

1. Increase the amplitude of the knee joint
2. Pain relief

Recovery methods:

Physiotherapy

In relieving symptoms of osteoarthritis using physiotherapy, procedures such as laser, ultrasound, shortwave, diadynamic, TENS are used (Radulescu A. 1989).

The laser is a device with optical device that generates light beam. It has painkiller effect, edematous, bio stimulatory and vasodilator. The laser is applied to the painful area, irradiating the affected area.

Mechanical ultrasound emits frequencies higher than 20,000 Hz .The commonly used frequency in physiotherapy is 0.8 to 3 MHz. By vibrating of the emission head, the beam is transmitted into the tissue using ultrasonic gel. Ultrasound has the following effects: analgesic, muscle relaxant, hyperemia or vasculo-trophic. The main physiological effects are associated with derivatives ones such as fibrolite and anti-inflammatory.

Ultrasound can be used in the continuous field, producing the so-called micro endo tissue massage effect (in the depth of tissue), or by using the ultrasound with pulses.

Short waves are high frequency currents, which allow therapy to be performed through the condenser field and through the electromagnetic field both in continuous operation mode and in the pulsed.

The use of high-frequency power allows greater permeability in the joint. They are used to reduce pain, inflammation, spasms and for muscle relaxation (Slavila M. 2013).

Diadynamic is a low-frequency current, which is painkiller, anti-inflammatory, edematous effects. The electrodes are applied to the painful area.

Through TENS, a cutaneous electrical nerve stimulation is produced, having analgesic effect, the electrodes being applied as in the case of diadynamic, to the painful area.

The purpose of this research is physical therapy program associated with physiotherapy and massage, aimed at increasing joint mobility, increase muscle strength and reducing pain.

Massage

In osteoarthritis, the massage is important for toning the muscles that stabilize the joint, has a sedative effect on neuralgic, muscle or joint pains and has a hyperemia action on the massaged the region.

Moreover, a vasodilation occurs in skin capillary vessels by blood circulation. With skin hyperemia, the skin heating occurs, removing the interstitial fluid while accelerating the resorption in the massaged region. The venous return circulation is also facilitated and the general condition of the patient improves, by also removing muscle fatigue. Furthermore, it has reflexive action on the suffering internal organs, which is explained by the reflex mechanism. The following are some of the procedures used: smoothing, kneading, friction, vibration friction. (Sbenghe T. 1981).

Physical therapy

In stage 2 evolved, physical therapy is based on posture, muscle toning, joint mobilization.

Postures are used to correct flexes and deviations of type genu varoom, genu valgus. Quadriceps, hamstrings and rotators will be involved in order to increase muscle tone and strength. Since a major problem in osteoarthritis is the decrease of joint mobility, joint mobilization is necessary to increase joint amplitude, i.e. regain full extension and flexion increase. To obtain a normal or close to normal joint amplitude from a physiological perspective, means such as posture, passive and active mobilization are used. Loading exercises like squats must be avoided (Sbenghe T. 1987).

The physical therapy program employed

In supine position (on the mat or bed):

1. Dorsal flexion, planting flexion- 2 sets of 10 repetitions.
2. Inversions-eversions - 2 sets of 10 repetitions.
3. Alternatively, one knee bent, then extended (sole drawn on the work surface) - 2 sets of 10 repetitions.
4. Leg abduction (dorsal flexion) - 2 sets of 10 repetitions each member.
5. Knees bent, feet flat on the work surface, leg extension on the thigh at 45 degrees with dorsal flexion - 2 sets of 10 repetitions.

6. Put your hands under the buttocks, bike runs - 2 sets of 10 repetitions each member.
7. From sitting:
8. At the quadriceps chair, calf extension on the thigh with 10 kg - 2 sets of 10 repetitions.
9. Leg abductions, with 10 / 15kg- 2 sets of 10 repetitions.
10. Leg abductions, with 10 / 15kg- 2 sets of 10 repetitions.
11. i

Standing:

13. At trellis, lifting on toes- 2 sets of 10 repetitions.
14. At trellis, on board balance, balancing left-right - one series, 20 repetitions.
15. At trellis, on board balance, balancing front to back - one series, 20 repetitions.
16. Posture:
17. The patient supports his leg at the ankle on a high surface, having extended knee. A weighing of 2kg-2,5kg is placed on the high end of the distal thigh - 3-4 minutes each member
18. Final, bicycle- 7 minutes.

The experiment

The experiment was performed at St. Luca Hospital in Bucharest on a sample of 20 patients, aged 45-75 years, men and women.

The control group comprised of 10 patients (6 men and 4 women) procedures of physiotherapy and massage were applied - 5 sessions per week.

For the experimental group comprised of 10 patients (5 men and 5 women), in addition to the physiotherapy and massage procedures, physical therapy sessions of 50 minutes were performed, also five sessions per week.

Research goal: to identify the best ways of recovering in osteoarthritis, and their implementation in physical therapy programs, leading to increase the amplitude of the knee joint. Osteoarthritis patient's recovery objectives are: combating pain, contractures and muscle atrophy, recovery of mobility and joint stability, mobilization and development of muscle groups that act directly on the knee joint.

In this research the following working methods were used: physiotherapy, massage and physical therapy.

Subjects were followed for 4 periods of hospitalization, of 14 days each.

Results

Table 1. *Results obtained on control group (percentages regarding flexion)*

		Control group	
		Knee joint mobility (Flexion degree)	
No.crt.	Pacients	Before experiment	After experiment
1	P. N.	79°	79°
2	V. S.	83°	83°
3	C. A.	89°	89°
4	P. M.	97°	97°
5	P. S.	75°	75°
6	T. D.	92°	92°
7	S. C.	110°	110°
8	T. A.	105°	105°
9	P. T.	78°	78°
10	P. S.	90°	90°

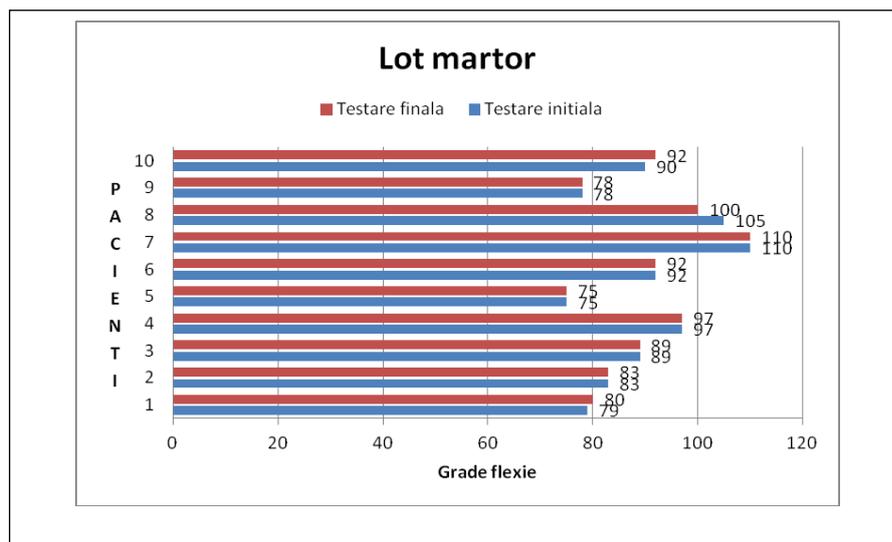


Fig. 1. Graphic of the values obtained on the control group

Table 2. Results obtained on the experimental group (percentages regarding flexion)

Experimental group			
Knee joint mobility (Flexion degree)			
No.crt.	Pacients	Before experiment	After experiment
1	A. C.	70°	72°
2	S. M.	69°	70°
3	T. P.	72°	74°
4	F. G.	80°	83°
5	L. I.	70°	75°
6	H. V.	90°	92°
7	A. R.	85°	88°
8	A. L.	93°	96°
9	A. S.	79°	83°
10	O. H.	100°	102°

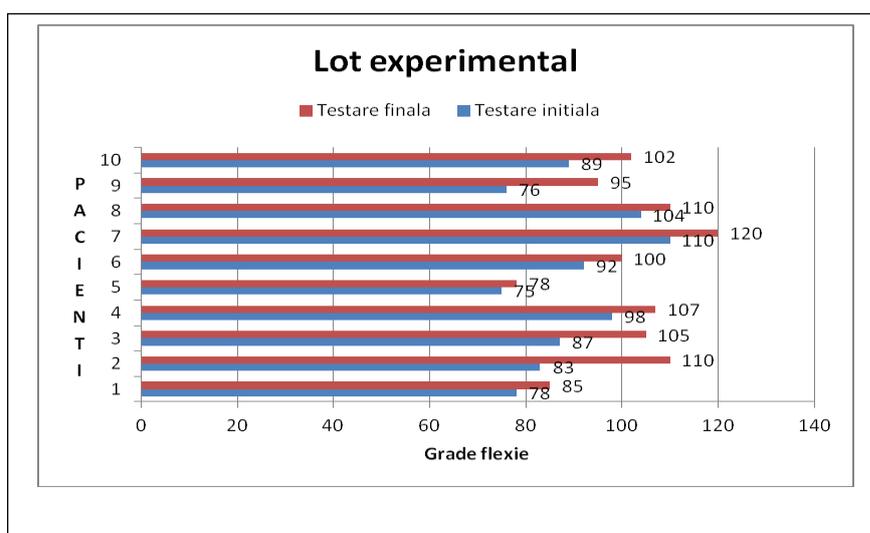


Fig. 2. Graphic of the values obtained on the control group

Observations: By flexing the leg on the thigh, the back of the calf approaches the back of the thigh. Active flexion progresses from 0 to 120 -140 degrees, while passive flexion reaches 160 degrees.

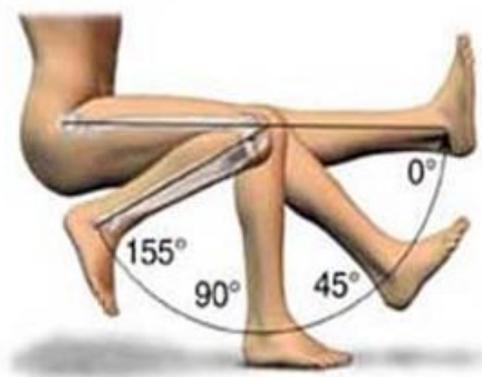


Fig. 3. Image regarding the degrees of mobility in knee flexion, from sitting position (Buzescu A. 2014).

Table 3.

No.	Control Samples	Patient groups	Initial testing	Final testing	t	P
			Arithmetic mean	Arithmetic mean		
1	Knee flexion (Degrees)	E	89.2	101.2	5.18	<0.05
		M	89.8	89.6	0.34	>0.05
	t, P		0.11>0.05	2.21>0.05	—	—

Note

P		0.05	0.01	0.001
t	n=10	2.22	3.1	4.5
	n=20	2.009	2.8	3.8

Knee flexion. In initial testing, it has been found that the arithmetic mean value is 89.2 in the experimental group, while in the control group is 89.8.

In the final testing, the arithmetic mean value of the experimental group reached 101.2 while the average value reached 89.6 in the control group. It is noted that the experimental group increased values are expressed in an improved mobility of the knee.

The differences between the initial and final testing of the experimental group, highlighted that calculated value "t" = 5.18 is greater than "t" spreadsheet (Fisher) to materiality 0.001, demonstrating significant differences between tests. Regarding the control group, the value of calculated "t" is 0.34 lower than "t" statistically, resulting insignificant differences between tests to $P > 0.05$.

Noting the differences between the averages of two groups, the initial testing shows that "t" = 0.11 =calculated value is less than statistically "t" at $P > 0.05$, the result is insignificant and regarding the final testing, "t" =2.21 = calculated value is greater than "t" statistically: it is a significant result at $P < 0.05$.

Conclusions

The physical therapy program led to an increase in muscle strength, joint mobility by several degrees, and moreover the pain was combated due to the applicability of physical therapy procedures associated with physiotherapy and massage.

References

- BACIU, C., (1997), *Anatomia funcțională și biomecanica aparatului locomotor*, Ed. Sport-Turism”.
- BUZESCU, A., (2014), *Anatomie și biomecanică*, Ed. Bren, București.
- CONSTANTIN, B., (1997), *Geriatric*, Ed. Medicala, Bucuresti.
- CREȚU, A., (2003), *Ghid clinic și terapeutic fizical-kinetic în bolile reumatice*, Ed. Bren, București.
- DUMITRESCU, R., ADUCOVSCI, D., SAKIZLIAN, R., SAKIZLIAN, M., SLAVILA, M., (2013), *Starea de bine=sănătate*, Vol. I, Editura Universității din București.
- DUMITRESCU, R., ADUCOVSCI, D., SAKIZLIAN, R., SAKIZLIAN, M., SLAVILA, M., (2013), *Starea de bine = sănătate*, Vol. II, Ed. Universității din București.
- IFRIM M., (1989), *Anatomia și biomecanica*, Ed. Didactică și Pedagogică.
- RĂDULESCU, A., (1991), *Electroterapie*, Ed. Medicală.
- SBENGHE, T. (1987), *Kinetologia profilactică, terapeutică și de recuperare*, Ed. Medicală.
- SBENGHE, T., (1981), *Recuperarea medicală a sechelelor posttraumatice ale membrilor*, Ed. Medicală.
- SLĂVILĂ, M., (2001), *Relațiile psihopedagogice dintre terapeut și pacient traumatizat*, American- Romanian Academy of Arts and Sciences, The 25 Anual ARA Congres, Montreal, Canada.
- SLĂVILĂ, M., (2004), *Rolul Kinetoterapeutului în echipa multidisciplinară de îngrijire a bolnavului - Internațional Congres of Paleative Care – Experiences Add Perspectives”*.
- <http://cyclingvideonline.com/cyclists-survival-guide-total-knee-replacementnee-replacement-post-surgery-p-5/>

VARIA SECTION

EVALUATION COMMITTEE:

Professor Remus Dumitrescu PhD

Professor Traian Bocu PhD

Andrei Ioana

CULTURAL AND EDUCATIONAL FUNCTION OF FOLK DANCE. CIULEANDRA DANCE
– TREASURE OF FOLK VALUES

Ghiocel Bota

MARTIAL ARTS, THE FOUNDATION OF OPTIMISATION AND PERSONAL
PROTECTION (SELF-DEFENCE)

Cătălin Cernat

ME AND THE SPORT

Maria Drăghici

IMPROVING LIFESTYLE OF INSTITUTIONALIZED CHILDREN BY PLAYING MOTION
GAMES

Ramkrishna Makani, Tapan Parikh, Inua Momodu, Ines Chicco

PSYCHIATRIC CO-MORBIDITIES AND CYCLIC VOMITING SYNDROME (CVS) – CASE
STUDIES AND UPDATED LITERATURE REVIEW

Oana Cristina Petrescu

IDENTITY COMPONENT ASSESSMENT STUDY ON ADOLESCENTS

Oana Cristina Petrescu

SELF – ESTEEM – VECTOR OF ADOLESCENT PERSONALITY

Boris Râşneac, Aurelian Gheorghiu, Evelina Râşneac

FITNESS – IMPORTANT MEANS OF SOCIALIZATION ADULTS

CULTURAL AND EDUCATIONAL FUNCTION OF FOLK DANCE. CIULEANDRA DANCE – TREASURE OF FOLK VALUES

Student: IOANA ANDREI

Coordinator: Professor PhD. Mihaela Ganciu

University of Bucharest

Abstract

The coreographic folklore is a subdivision on folklore, and contains all the coreographic creations made by popular spiritual culture. Because of syncretism, it is realizing a communication and an efficient transmission of culture. The music, the movement and the poetry work together to create a common language, it is a form of nonverbal communication.

Among other arts, dancing is an exercise that has a specific characteristic, produces cheerfulness, joy and delight, dance is a manifestation of humanity. Being an art, dance includes plastic movements, steps and gesture executed with a particular attention to the rhythm of music.

This art is constantly enriched over time, become increasingly more complex, in coreographic elements, because of people who always leaves its mark on popular creations.

Learning dances in schools help not only at the transmission of Romanian culture, here intervening cultural function, but also the transmission of dance in terms of physical education.

Keywords: Ciuleandra folk dance, hora, application of teaching and learning activities.

Introduction

Since ancient times, dancing was not simple entertainment, but a form of communication, a language. He was already strong expression of your sensation. There were several categories of dances. Warrior dances performed by the best warriors, mystic dances performed by men and women, holding their hands, chain or in a circle, dancing theatrical with religious nature, kicking dances Dionysian sung by young girls. Middle Ages its characterized dances “in circles” or “chain”. During this period, dance their way into religious space of the church through pantomime and masks that interprets quotations from the Bible and the gospel.

Influenced and driven by the music impulse, dance is conducted during this period, to familiar music, and seen as a harmonious art. In Renaissance prevailed solo men dances. If we consider the folk games of feudalism, we associate the notion of transhumance from one area to another, rebuilding local dance on the same directions so that any oral creation. Appears Moldovan rural dance, which is then danced by nobility and became popular dance or folk dance enriched and transmitted from one era to another. Dance becomes a globalization of slow movements or dynamic with characteristic features that transit era. The dance then becomes hora, a dance which takes ethnic structure transmitted as a folk tradition.

George Breazul (1961) was a musicologist, teacher, ethnomusicologist and music critic novel makes finding the beginnings of ethnic dance in our country. In this way, it highlights the combination of lyrics, melody and rhythmic and mimetic movement of the dance, so rebuilding local ancient folk dance, as remarked Nicolae Iorga: “Our poetry is broken from life, and mixed with life.” Thus, the free movement posed by reflex, become organized and because creativity is transformed into harmonious movements of the folklore dance.

The study pastoral dance is a criterion for comparison's typology of folk games in the feudal period when the predominant transhumance from one area to another. Credentials of the existence of Romanian folk dances still appear in ancient literature, from Demeter Cantemir in *Descriptio Moldaviae* (1716), close to the time when he made the first description of folk music and fiddlers, 1688 in Bucharest Bible of Serban Cantacuzino. Franz-Josef Sulzer in *History of Transalpine Dacia*

(1781-1892), develop a rich material on the popular dance, hora, calusul, and ten song, eight of them are folk dances.

Béla Bartók published *Romanian Folk Dances and Romanian music from Maramureş* in 1918. Following these writings reveals that dance is dance representative of Romanians and Romanian folk music, in the generality of its manifestations, it is a horal music.

The Romanians' life was marked by collective dances who transmitted emotional energy: Hora, Sarba, Învârtita, Batuta, Girdle. Dances such as Russian, Bulgarian, Gypsy, Armenian, Horodincea, were taken from the Russians, Bulgarians, Gypsies, Armenians and Ukrainians respectively.

There are indications that hora arose from more than 5,000 years, on the land Dacia namely a ceramic representation of a hore made up of six women owned by Cucuteni culture (3700-2500 BC). Since the XVth century (Gr. Ureche) and continuous-XIX century were first collection which tells about the existence of dance, among which were a number of dances and establishing two phonograph records reveal the richness and variety of this repertoire.

In the nineteenth century hora becomes a simple dance, a celebration with specific popular: Hora village. Hora has a well-defined end, it may be named or area from which the name of which is interpreted: Hora bride, Hora wedding, Nuneasca. Hora dance is representative of our people, which has historical significance.

It is not found in other nations, says and Cantemir, Calendar shaped circle of Sarmizegetusa fortress, we can think at hora, name of Horea is a nickname and comes from hora moti, then wonderful Hora Unirii's Alecsandri that Mihai Eminescu "consider the most beautiful dance of the Romanian people." The Romanian played on January 24, 1859, hora has become a symbol of national unity.

In *Descriptio Moldaviae* impressive is the game callus. This dance of callus is found in all Romanian provinces (Transylvania, Moldova, including in the Prut and Romanian Country), but especially today kept only in Oltenia. Basics and not much different proving that they have a common root. Callus dance was originally a dance with weapons that aim casting out demons. Romulus Vuia highlights in his *Origin game callus* (1922), the link between ritual practices and belief in evil spirits, mythological beings known in Romanian Camil Petrescu's novel, *Fairies dance*. With their magic dance, these women may steal the minds of men, they are actually some ghosts.

Is highlighted also the connection between ancient ritual and the Feast of Pentecost, the game has contact a solar cult, for playing around the feast of Pentecost. Callus launches today in Plain Bărăganului in Dobrogea, Moldova.

In 1599, 112 căluşari, among which Căluşarii Geoagiu, attended the triumphal entry of Michael the Brave in Alba Iulia. It can be said that for hundreds of years, Căluşarii Geoagiu have missed the major cultural events that happened in this part of Transylvania.

Content

Each dance or dancing has a history, which should be recalled in teaching dance. The name, practice area which are closely related to his history. In our country, practiced dances are diverse and sometimes take their name from the band dance (pairs dance, group, or playing two small circles) or evident from the area where they danced first. For example, Ciobănaşul is a game of two who was called in Transylvania Purtatul, Fecioreasca or De doi. He had been sent by a shepherd named Ciobanul in villages in the delta, where the last sheep.

And so, there is a shootout between areas of the same country, regional influences taking steps characteristic. As Breaza, probably played by workers in the Prahova Valley, at Breaza, long ago, as it plays in Predeal for two or even three. The dance caught and was named after the town where it was very widespread. Incidentally, the same dance with minor variations to the figures, is played in Oltenia as the Hungarians or Ungureanca. Ungureanca's name derives from the nickname that gives generally Transylvanians.

The dance has nothing in common with the Hungarian people. Troaca, Tarcolul Fedelesul, Lugojana dances are again brought from Transylvania." (Al. L. Dobrescu, 1930).

Our character dances popular typology varies according to each region, for the difference in landscape and atmosphere, creates a wide variety of rhythms, musical compositions, costumes and dance styles.

Classification reference to Romanian folk dance is performed by Andrei BUCSANI the journal *Ethnography and Folklore* in 1967 for then appear in more detail in the work of Romanian folk dance specifics 1971. Dancing analyzing the 3-dimensional morphological, typological, stylistic after lengthy research of Romanian choreologists.

Morphological classification relates to the expression choreographic dances, discovering elements of dance, formulas and features. Andrei Bucsan calls issues.

1. With the temporal aspects observe rhythmic metric structure (anapaestic, spondeul, diripicul, dactylic, amphibrach etc.) and tempo can be slow, moderate, fast, fast.

2. The next classification is the kinetic aspects of the popular game very varied movements. Meet simple steps, steps beaten spurs steps crossover steps of spinning, passes under the table, beating by hand over foot, clap, snap of the fingers, steps leading-heel flexion, jumping, swinging legs, movements independent arms and torso movements with various accessories.

Figures include kinetic formulas, sections and kinetic reasons that form the structure of a dance. Kinetics is: simple, beat the ground or spurs, hook (step crossed) spins with beats hands, manual independent trunk with utensils, gymnastics and special.

3. Regarding aspects of construction from figure kinetic dance as a way compositionally, can be simply developed and complex having a primary reason two basic reasons that several different reasons. The sequence of figures can be uniform, fixed or mobile, namely a single picture more figures executed in a particular order and the same number of times respectively more variable figures made variable. Longer fall here and succession free dance does not have a fixed schedule is improvised.

Overlap the song or we can call syncretism that is steps may be consistent with the song, inconsistent or necoincidentă.

4. Issues overall concerns performers and dancers to their form of organization. The band can be classified according to the number of players, form of settlement, held and sex composition, and thus distinguish Andrei Bucsan categories:

“a) group unlimited closed circle, hand and mixed.

b) group unlimited line of the shoulders, sometimes waist, mixed or male.

c) limited group in a closed circle, class, sometimes the shoulders, mixed.

d) pairs sometimes in a circle or line.

e) group variable monomial in general or separate sexes.

f) solo or polisolistic more manly.”

In terms of the progress in space travel are a few possibilities: the bypass in place, or alternating-bypass place.

The second largest category, general complex dance, we have two aspects taken into account the complementary and spiritual. Common texts can be used at any game and special dances used on some orders. They can be shouted or chanted. Theme, function and character dance forms spiritual aspect. The dance illustrates a special moment in the lives of individuals, hence the theme of dance. The theme is suggested by certain movements or be nominal and real.

Functions dances in this classification are current, prevailing in a particular region and they are mixed race or specific common men. The special practice in a given moment, on one occasion being restricted group having fun features, spectacular or ceremonial. Dance character is given by the expression of participants intensity. It can be quiet, lively, exuberant, strong, athletic and acrobatic. If you look through the spiritual can be lyrical, spectacular, solemn, cheerful, comic, grotesque, charming.

Classification, provided by Andrei Bucsan, is a work of reference to analyze basic and Romanian folk dances. Thus we can see the many issues that we need to take into account research, analysis, classification and delivery or transmission dances.

State of knowledge

Over time, various works were carried out to clarify some regional variations regarding the origin of the dance dances, names and structure coordinates. The dance Ciuleandra derived from Ciuleandra or walk the Ciuleandra namely in a careless, is a dance hora small, mixed with unfolding in the ellipse, overlapping indifferent steps crossed and tempo met in Muntenia, Dobrogea and neighboring areas.

The most famous Romanian dance, Liviu Rebreanu made a very accurate description in the novel Ciuleandra: "It starts as a dance some very slow, very sparingly. The players are gathered, lined, it combines probably after sympathy, or at random, regardless. Then, when it seems that people were girded least, music catch shake and be nimble. the pace is accelerating, of course. Players, gripped her waist, forming a wall compact bodies that Mladic bend, twist and throb as command musicians. the more you catch the hottest players, so music is so, becomes fidgety more savage. feet lad escape rough, draft figures clatter, jumps with fright, "zvâcnituri" joy. Then, suddenly, all with steps mattress and very nimble, go on a whirlwind. (...) So, place a few minutes, I do not know how long, in the same rhythm crazy lads and girls fidget, shaking, pounding ... several times seething passions is pierced by shrieks extend Tasnei park in the age of the times" (Liviu Rebreanu, 1970).

For detailed, explanatory really, this fragment appears to have a role in training and teaching dance Ciuleandra.

Personal experience

The dance was taught in keeping with the particularities of the subject's age. The work was valued and appreciated at festivals and competitions, folk art themes, which were presented folk dances, performed by a group of children in the classroom and educational institution in which we operate.

In addition to finding that, by practicing dance popular in preschool education were noticed improvements in skills and abilities, coordination between segments, correcting posture and posture and development of orientation in children was apparent interest of children on culture and knowledge of Romanian folk. It is noted that socialization was first; the children worked properly revealing dance functions such as learning, entertainment, social and harmonious development.

I applied structures of popular dance Ciuleandra, steps Selected to be executed easily from children so we took account of children's age, sex participants develop physical training, health status, specific features of the venue (steps dance and the formula of dance, posture, movements of arms and legs). Presentation at various festivals with a group of children brought public appreciation and jury. Thus the present work was valued by awards and diplomas.

Because children's folk games and are based more on traction is recommended teaching folk dances in preschool education at a low level of difficulty, the submission of new elements in motion.

Conclusion

This paper aims to highlight the importance of teaching dance steps popular in educational activities in undergraduate cycles. They showed positive character traits of students. Material taught through diversification, increases educational lesson, dance is the best manifestation of psychic states of the moment.

Learning dances in schools not only help the transmission of Romanian culture, this intervening cultural function, but also in terms of the transmission of physical education.

Transmission of cultural heritage from society to the individual is by achieving goals in physical education lessons or recreational activities that take place through dance class, namely: -the development and harmonious physical body:

- correct body posture training.
- improving body functions.
- increasing stability and mobility of joints to ensure complete functions.

- developing the ability to orient in space.
- development of motor skills in reaction rate.
- develop rhythmic sense and the ability to coordinate movements.
- developing the taste for beauty, for harmony.
- stimulate interest activity.
- active participation in the activity.

Transmission romanian customs and habits, can be done by the reception of cultural education, as education is a permanent reconstruction experience but without any experience mean that is full of educational value. Meaning humanistic education for values is guided by an open and dynamic nature of traditional values and specific values of modernity and our days.

Bibliography

BUCȘAN, A., (1971), *Romanian folk dance specifics*, Bucharest.

BUCȘAN, A., (1972), "About the character of folk dances", *Journal of Ethnography and Folklore*, volume 17, no. 3 Edit. R.S.R. Academy, Bucharest.

DOBRESCU, Al. L., (1930), *Manual of national dances*, Publishing Writing Romanian, Craiova.

GANCIU, MIHAELA, (2011), *Specific ethnographic areas popular dance-guidance method*, Ed. University of Bucharest.

REBREANU L., (1970), *Ciuleandra*, Eminescu Publishing House, pag. 109.

MARTIAL ARTS, THE FOUNDATION OF OPTIMISATION AND PERSONAL PROTECTION (SELF-DEFENCE)

Artele marțiale, fundamente ale optimizării și protecției personale

GHIOCEL BOTA

University of Bucharest - DEFS, Romania

Corresponding author: budobota@yahoo.com

Abstract

Optimization and personal protection (OPP) is a synergic discipline which uses psychological means-military techniques, physical education and oriental philosophy in order to ensure an efficient basis for people that live in a world that is more and more affected by "wars". It ensures survival and the formation of the character, traits without which personal and professional activities cannot follow their normal course. This demonstrates the necessity of incorporating the principles of Chinese and Japanese education into the Romanian educational system.

Keywords: Morality, Bushido, Qiqong, Qi, Psihomotric Development, Constant Training, Self-control, Self-knowledge, Potential, Self-defence

Introduction

Chinese elements

As far back as fifteen hundred years ago, when the Grand Master Bodhidharma, an Indian prince that refused to succeed the throne, brought the Buddhist Qiqong (energetic yoga) and the Buddhist Chan (Zen) Doctrine to the Shaolin Monks in China, the three most important Chinese spiritual related activities: Buddhist Meditation, Qiqong and Martial Arts reunited in a single branch entitled the Practice of Dharma. The purpose of practicing Dharma is reaching a state of Unified Balanced Identity, an awareness of one's original nature and true inner state of reality.

The ultimate purpose of the Buddhist trainee is to generate an Awakened Mind of Compassion and Understanding. The first steps towards attaining this state is disciplining one's body, mind and speech, thus stabilizing the three doors of expression. One can be in harmony with one's self by creating a balance between body, mind and speech and only when one has obtained harmony, can world peace become possible.

The peak of Martial Arts is non-violence. This fact is also attested through the analysis of the Chinese character which means 'martial'. This particular character is made up out of two separate parts, the first meaning 'elimination' and the second naming the ancient weapon 'broad-axe'. Together, they create a character which suggests alleviating the conflicts of the world, indicating the unbreakable bond there is between the physical training that martial artists undergo and the spiritual improvement they must practice at all times. This could explain why all founders of Chinese Martial Arts guided themselves by principles of wu-wei (non-interference principle) and implement the Spiritual Path Principle, in order to bring harmony to the world.

The base of Classic Qiqong is the discovery and study of intrinsic energy upholding all substances in the universe, namely Qi. Chinese classics recount the existence of three types of such energies: the energy of the sky (tian 天), earth (tu 土) and man (ren 人) whose fusion and harmony culminates with a state of Awakening that Buddhists call the Acquiring of Understanding, or the state of Buddha.

Kung fu started spreading in the 18th century, when, due to sheltering political enemies of the Qing dynasty (1644-1912) during its governing, the Shaolin Temple was attacked and destroyed,

driving the five surviving monks (少林五祖) into hiding. The nun Ng Mui is said to have been among them and, upon taking refuge in a village, she met a beautiful young daughter of a tofu merchant who was being harassed by a gang of thieves whose boss wanted to make her his wife. Rather than defeat the thieves and give herself away, Ng Mui decided to teach the girl, Yim Win Chun, self defense. After she got married, her husband inherited the secret Shaolin martial arts techniques and founded the style Win Chun, root for many martial arts masters nowadays (up to Yip Man, master to Bruce Lee).

Japanese elements

When master Ueshiba called his students to his side in order to reveal to them the “secrets of Aikido” they expected an incredible mystery that would make them invincible, like their master was. However, what they received instead is information about the creation of the universe, about sound-spirits, the core elements and returning to the Root, about one’s body and the Root itself. “These are the secrets of Aikido” he concluded. He was merely stating the importance of a practitioner’s psychological state, his knowledge of the universal laws and traditional philosophical roots, which lay beyond physical exercises.

Training in a Dojo requires mastering certain basics: Socho – the ceremonious part that requires that practitioners show respect and harvest harmony. This part also includes the Zen-Nokuso moment of meditation. The second part is called Hanpuko No Wanyzen – a trainees’ immersion in training, throughout the session’s length. The last part and probably the most important one is Yokusei – self-control.

Through the passing of time, people have gradually been drawing away from metaphysics and the esoteric, evolution process which an initiated person ingeniously described thus: “Ordinary people have lost the roots and are climbing towards the top of the tree”. The solution to this could be analyzing spiritual disciplines in the light of scientific psychology. One cannot benefit from the existence of an absolute being like God and the supernatural phenomena surrounding us, yet if we were to consider the effects they have on our psychology, then their influence becomes a crucial element. The Japanese in particular emphasize constant improvement, throughout our daily lives, thorough alimentation, breathing exercises and mentality, training called Kaizen.

Japanese martial arts are structured in three major parts: Kihon, or breathing exercises that stabilizes the psyche, Kata, fighting an imaginary opponent, and Kumite, free battles that also need to rely on certain principles – Yanshin, Miyu no Kokoro and Tsuki no Kokoro (to have a spirit that is awake, fluid, like water, but also calm, mysterious, like the moon)

The perfect state one can reach is Kime, focalizing one’s entire potential in every single action, permitting practitioners to predict the opponent’s attacks (Hen-o) and counter (Sen no Sen). The spiritual preparation for the final stage is self control (Ki sei), being prepared yet not waiting (Nushin) and non-action (Shizen no Ka).

Self-development

Under the self development category fall all activities that improve the individual, through self discovery, developing one’s potential, personality and talents as well as chasing and fulfilling ones’ dreams. This is a development that sprouts from within. However there is a development provided by outside sources, usually specialists in staff development, whose purpose is to improve the workforce of companies and, by association, production rates.

As far as personal development is concerned, the major points one needs to take into account are: attaining the social standing appropriate to one’s real evaluation of his or herself; one’s ability to establish priorities and lifestyle; establishing a plan for achieving one’s dreams and future aspirations; developing one’s talents and potential; improving one’s quality of life; improving ones’ understanding and control of one’s life. When personal development is the duty of someone outside of ourselves, like a teacher or mentor, it becomes an industry directed either to an individual, like self help books, counseling, teaching and coaching, or to an institution, like colleges, and employee training programs. Due to a great increase in demand in this economical branch, American colleges are concerned not only with their students’ theoretical education, but also with their character, personality, emotional and interpersonal development, for which various tests were created, in order to check on their progress.

Along with the globalization of the market economy, the focus has shifted from a company's capital, to its employees, many successful companies owing their achievements to the exceptional human capital it possesses. This has also determined a shift in managerial techniques. A corporation requires high achievers, for which the relationship between a manager and his subordinates needs to be one of friendship; a collaboration between the two. Employees have to strive ceaselessly to evolve in order to keep up with the modern work requirements in companies. Upon undergoing personal development programs, individuals feel more satisfied, motivated and loyal to their workplace while the company's productivity, as well as the creativity and quality of products increases considerably.

The situation in Romania is rather bleak due to the flaws in the educational system, however, with an impulse from the EU, the number of companies providing self development activities started to grow. Also, the CASA centre of Bucharest University is striving to bring the issue of personal development to the students' attention by providing them with Teambuilding and Self-defense courses, educating them through the perspective of Martial Arts.

The ethics of Martial Arts

Learning a Martial Art brings forth a responsibility which the disciple is required to accept. The techniques taught in any type of contact sport can be employed in either selfless or selfish actions, depending on the users' conscience. The process of civilizing the population focuses mainly on eliminating egocentrism and installing altruism.

Japanese Martial Arts were greatly influenced by the Zen Buddhism that they imported from China, which valued personal experience over external authority. Through Zen Buddhism, ancient warrior activities were turned into educational Martial Arts. Zen Buddhism also influenced samurais into establishing the Bushido concept, the way of the samurai, in which moral education was favored over physical training, because any type of Martial Arts was just as good for the physique as the others. The result of spiritual training provided by Zen Buddhism is to reach a state of calm and lack of fear, which, combined with a samurai's courage and sense of duty turned them into figures of legend.

Bushido lessons took shape in a Code of rules, founded on Confucius' writings from around 2500 years ago. This Code's objective is to identify the qualities of a *true human* and to facilitate understanding among members of society in spite of their different social standing. The first written version of the Code appeared around the 1700's, as a book entitled Hagakure, made up of 1300 rules of behavior and parables. It is a cultural heritage with an unparalleled impact upon the Japanese mentality, which still forms the basis of numerous Martial Arts nowadays.

Bushido advocates for all things to follow their true path. Humans have lost sight of their original path, and no longer follow that which their conscience dictates they do. The Bushido way attempts to "awaken" their true conscience by giving them a near-death experience, the kind one gets on the battlefield, or artificially induced in the Dojo. In the Japanese conception, society resembles war, therefore the lessons taught in the Dojo offer an insight into life's secrets.

Morality has a strong connection to physical capacities, and in absence of morality, training is ineffective. Through education, martial artists learn to control their emotions so that they don't get the better of their rational thinking. They also manage to become virtuous, by progressively developing one's generosity: starting from a social constraint (politeness) to a moral constraint (necessity) and then to an ethical one (kindness). Virtues are a requirement only in the absence of love, yet they become instinctual after undergoing a samurai's training. Budo ethics include both moral actions, like politeness, modesty, respect, righteousness, trust and loyalty, as well as moral mentalities: patience, willpower, resistance, perseverance, mercy, courage, honor, knowledge and humanity. Serious martial arts seek to improve and enlighten a practitioner, for which reason disciples were chosen by their sensei upon their fulfilling the morality criteria.

Moral education implies having a clear purpose, motivation, high-demands, and organization, proposing multilateral activities, bypassing a pupil's resistance to learning, setting a good example and teaching a student how to educate himself. A teacher's voice needs to be expressive and imposing and his attitude appropriate to the situations he finds himself in. On the Tatami, education is implemented directly on the body, yet external factors also have a permanent influence on the practitioner's mentality and character. In order for the disciples to understand better the ethics of a lesson, the

instructor should create the opportunity for students to discuss and understand them, and figure out how to apply them in real life. The instructor should also incite the students with appropriate ethics questions. Sadly, not all instructors are competent enough to apply this theory and to install a non-violent mindset in their pupils' character.

An instructor has the duty to educate, both kindly and severely depending on the situation. He needs to motivate the students and love them, to focus his attention on the "bad" students, because the "good" ones can handle issues themselves. Some basic rules for instructors are to respect the rules they impose on others, to signal any case of breaking the rules and not to give up on any student, because the Dojo is a place where he can correct his mistakes. If he really is unfit to practice Martial Arts, he will back out of it on his own. The instructor has to become a role-model for his students and be dedicated to his job. If he does not have a vocation for teaching and understanding his students, he's better off not teaching at all.

References

- ANDREESCU, A., MACOVEANU, D., PĂUNESCU, C., (2013), *Tehnici de Autoapărare* (Self-defence Techniques), Publisher Lumina Lex.
- BOTA, G., (2003), *Interacțiuni Psihosomatice în Artele Marțiale Japoneze*, teză de doctorat (Psychosomatic Interactions in Japanese Martial Arts) University of Bucharest.
- CHELCEA, A., CHELCEA, S., (1986), *Cunoașterea de sine* (Knowing one's self) Publisher Albatros.
- CRISTEA, C., BOTA, G., (2000), *Wado-Ryu, Karate Do*, Publisher Alfa.
- DERLOGEA, Ș., (2006), *Teambuilding*, Publisher Amaltea.
- GOLU, M., (1993), *Dinamica Personalității* (The dynamics of personality), Publisher Geneza.
- HOGAN, K., SPEAKMAN, S., (2008), *Persuasiunea Mascată* (Masked Persuasion), Publisher Meteor Press.
- HOLDEVICI, I., *Ameliorarea Performanțelor Individuale prin Tehnici de Psihoterapie* (Improvement of Individual Performances through Psychotherapy Techniques) Publisher Orizonturi.
- LANSBERG, M., (2005), *Coaching*, Publisher Curtea Veche.
- MITROFAN, N., *Aptitudinea Pedagogică* (Educational Abilities), Publisher Editura Didactică și Pedagogică.
- TUDOS, Ș., (2004), *Generare și Regenerare Psihică* (Psychical Creation and Regeneration), Publisher S.P.E.R. Bucharest.

ME AND THE SPORT

CĂTĂLIN CERNAT

University of Bucharest, Romania

*Corresponding author: catalincernat07@yahoo.com

I am the blind student, the second year, from the Faculty of Sociology and Social assistance, department Social assistance. I applied within the Department of sport and culture of the University, to participate at the swimming courses.

I was a person with a normal vision up to the age of 20 years. I was also student at Computer management / Romanian-American University of Bucharest for one and a half years, when in the first semester from the second year, the doctors found me a brain tumor on the optic nerves. I made a surgery at Baltazar Arsenie hospital. I followed treatments but they couldn't help me. One of the methods that I knew beneficial was the sport. I put so on the job. I took a dumbbell of 9.5kg, a stepper Kettler and I started to make daily exercises. I noticed that after I made the exercises, I feel better.

My father, mother and my brother, observed my change for the better and proposed to make our subscription at leisure club IDM. Here we were having a large fitness room, where we were working biweekly at a several machines, we were practicing swimming pool and Jacuzzi relaxing, massages and many others.

The sport has helped me much to control the pains caused by the affections which I was having them daily. Some doctors doesn't recommend the sport to the persons suffering from this disease, but my neuro-surgeon doctor told me: "If you can make a sport, then do it, it will help you much regarding your recovery".

So I got to go two times per week to do fitness equipment, relaxing and swimming, cumulative about one hour and a half. Daily at home I make relaxing exercises and sports exercises with the two appliances.

In general, the sports which set into motion the body, trains the respiratory system and cardiovascular. Examples are: running (athletics, football, tennis, handball, etc.), swimming (natation, polo, jumping), and those of rowing type, cycling, etc. All these sports help us to develop our respiratory system. Respiration has an important role in the sports. I can now realize that the instructor ladies make me breathe more often, and one of them tell me: "Kick six times and then breathe". She's absolutely right, sometime I forget to breathe thanks to my thoughts, which kept repeating in my mind. By breathing we are trying to control the mind and our thoughts which always steal us, getting to be controlled by them, instead of our control on them. However do not get to be check by a monkey going. In this regard a psychologist doctor told me in the following way: "When you exhale give all the air from your lungs, in this way you think you give out negative thoughts and all the evil in you, when inspire in fresh air with positive thoughts". Remember only a moment by the hours of sport from the smaller schools, after each exercise we were made to surround the sports field and exhale and inhale raising our hands up and descending them. That exercise was for us to remove our muscle tensions and to calm our cardiovascular system and of course for our relaxing, because the respiration has a relaxing effect. I found, during the exercises that at a time, appear head unpleasant symptoms, at the rear, hands, legs, etc. I began to breathe more deeply and I continued the exercises, other times I was abandoning the exercises and it was not good. I noticed, that after the deep breath, the symptoms were beginning to disappear and I felt like that now I begin the exercises. There are much to say on this subject of the breath, and many doctors, psychologists, instructors, etc., examines how it has to be done right, to have maximum effect.

Another important factor for me was the nutrition. I realized that after doing sports, I eat less. The muscles were tensing and were blocking my abdomen. So I passed to a vegetarian diet composed

of menus with salads of raw vegetables only (vegetables, fresh fruit) and ground cereal grains without meat and meat products, without cheese, eggs and other foods of animal origin.

I noticed that practicing sport I become more resistant. So I decided to move on to a regime based solely on fruits and vegetables in their natural state. I dropped in semi prepared food definitive, eating fruit and vegetable salads. My joy is that now I can make my own food, buying me a handheld chopping vegetables and fruits.

I have read in the book “Raw food” by Ernst Gunter, by an American swimmer, Olympic to this sport, that he take a diet based only on raw food (crudivor), that in competition was feeling that at the end of each lap pool, his opponents barely started the turn. He has become the Olympic champion exceeding the world record at that time. He said that the diet helped him very much and has not taken any pills or something to dope. I believe him because I also felt the beneficial effect which it has this diet.

Nutrition has a very important role in my life and I think that is good for all the people. The doctor Virgiliu Stroescu, which was the physical preparer of Nadia Comaneci, was saying about the word (OAMENI) = people, that each letter in this word expresses something, as follows:

O = (odihnă) rest or sleep,
A = (alimentație) nutrition,
M = (mișcare) movement,
E = (educație) education,
N = (natură) nature,
I = (inteligență) intelligence.

Here is that if we notice the first levels, a basic role, in human life it has the rest – the alimentation – the movement. I would say that these three levels start from childhood. Children are put to rest by their parents who care to have a healthy nutrition, and the movement which they make it is that runs after the ball or practice of other games of this kind.

Now we are no longer children, but as young people / students, we need great rest, alimentation and sport. At the faculty program is loaded, we have much to learn for exams, daily life we produces a lot of stress and panic, so to control these situations we need to rest, healthy nutrition and a regular sport.

The Department of Physical Education and Sport of the University of Bucharest offer us a wide range of sports which we the students we can choose them. Here you will find nice and kind teachers. I have chosen the swimming and participate at swimming courses in the Sport Club Steaua Bucharest.

At the swimming pool have encountered me two very beautiful and nice teachers, who give me directions how to swim and in what way to do this to progress.

I mention that I got performance as the blind, and hearing impaired, to go through different swimming processes about 1000 meters of swimming in 1 hour and 45 minutes.

The sport helps me develop my physical abilities, to restore my psyche, to have a healthy body, to think positively in achieving of my dream, as student in social assistance and in the future as a professional in social assistance.

Dearly beloved colleagues, mentors and students from University of Bucharest, if you like swimming, I will wait you to see me and to know me.

I wish you much health and also a life as more active, a healthy diet, a lot of success at the learned.

IMPROVING LIFESTYLE OF INSTITUTIONALIZED CHILDREN BY PLAYING MOTION GAMES

Student: MARIA DRĂGHICI

Faculty of Political Sciences, University of Bucharest

Coordinator: Professor PhD MIHAELA GANCIU

DEFS, University of Bucharest

Summary

The paper presents the situation of institutionalized children whose lifestyle can be improved by different motion games because they have a very big impact on physical and mental development of a child who did not know what a family means.

Games movement influences the development of concentration, collaboration, interaction, but also the development of competitive spirit. The methods used to demonstrate these things mentioned above were observation and directed conversation, which we were able to show that although most people think children in institutions like aggressive people and it is reduced concentration, through movement games that I applied, I noticed that research subjects have acquired skills as: teamwork, timing, have become people who can interact, even wanting to continue doing sports in the future.

Thus, this research demonstrates that through various techniques you can develop new skills, it matters only to know how to adapt yourself to the situation. Institutionalized children are part of our society, so it takes commitment, time, resources to improve their lives.

Keywords: Institutionalized children, games of movement, health, dances, sports activities.

Introduction:

It is known that the program of institutionalized children is established based on the people that supervise, so they try to involve them in educational activities, but they also offer time to play.

Institutionalized children do not know what a Sunday spent with family mean, in the park walking, cycling, rollerblading, they do not know what it means dance courses, modern dance, volleyball, basketball, football, etc., they know only playing around or sports lessons included in the curriculum.

Today's society no longer focus on healthy lifestyles, based on time spent for sport, so the emergence of various diseases can be observed even at children 5-7 years old, because they are allowed to spend very much time in front of the computer, they are used to eat small fast-food meal, without thinking at the consequences of these habits. These practices, however, may not apply to institutionalized children given that financial resources and development conditions are precarious, but they spend their time watching TV or playing among themselves without realizing that they must allocate time for exercise, because thus improve their physical condition, psychical, and overall health and be more active.

Issues addressed:

The game is not, how wrong we could think only for fun, but a leisure occupation which has an important role in the formation of a healthy lifestyle.

It is intended to organize games in which children ends skills activities, to develop their sense of balance, coordination, mobility, strength, reaction speed, offset deficiencies, fighting obesity, training tool cardio-respiratory enhance the understanding of tactile-kinesthetic and memory, to be able to manifest and develop creative initiative to educate collective sense, the spirit of camaraderie, fair-play, organize, follow rules empathetic spirit, self-confidence and sense of usefulness.

The purpose of this paper is to highlight the importance of physical activity to improve health of children in institutions, because according to statistics, demonstrated that the socially institutionalized children are more introverted than those living in a family, are more prone to depression, mental health is influenced by various people that they love over time. Personally, being voluntary for many years in foster care centers, I noticed how they are easily attached by volunteers, are receptive to the activities that we carry out, but when you ask to express their own opinions, they shut up.

My research questions are: How to improve the lifestyle of institutionalized children through motion games?

How the program should look of a child living in a foster care center?

To answer for these questions I will start from the **hypothesis**: If we apply motion games, then we can improve physical health and psychical.

The research methods used were: Documenting by studying specialized material with reference to the important role of motion games for resolving the various themes of lessons, teacher observation and conversation conducted on a mini-questionnaire.

Starting from the idea that the movement must be part of every human life, I was able to implement motion games for children with the age between 3 and 14 years old, adapting them to exercise capacity that can lodge every player.

Motion games are an attractive method to develop instincts, to enjoy, to socialize with other participants. They offer the opportunity to develop the ability to assimilate information, enhancing the level of physical training, to acquire the technical elements of the game, ensuring greater driving skills.

Also, motion games establish the skills of teamwork, timing their movements with those of others, improving skills utility applications, improving overall exercise capacity influence the subjects personality in terms of cognitive, affective, develop creativity, increase the comprehension of complex situations, stimulates memory and concentration, the ability to make quick decisions, because as psychologist Gross says „games practice not only muscles, but also the intelligence."

As age of the player increases, he will prefer to change their preferences for motion games, as the mental development.

When applying motion games to institutionalized children, I have chosen for those younger than 7 years old games like “Lupul și oile”, “Lupta cocoșilor”, “Semaforul”, etc.

At children over 7 years old I applied motion games like popular dance steps from: “Ciobănașul”, “Ciuleandra”, “Hora Mare”.

Schedule of motion games began after I met the children, so it wasn't hard to accommodate with us, volunteers, it was more difficult to interact between each other and work as a team, but along the way I noticed that already have acquired the concept of team, after less than 6 months. Classes were held weekly for each of the two age groups being allocated 2 hours each. Children waiting with great love these hours, often saying that before “we were preparing to play very well.” Also children began to interact more easily with each other and express their opinions on various topics that we propose for them.

Lifestyle can be improved by playing motion games if they are perceived as for recreational activity, not as an effort will be rewarded with notes or not brings no enjoy, because as we know, many children turn to medical exemptions to not participate in gym classes or objective reasons or because of fear for the note, however, motion games educates feelings such as fear, indifference, develop the capacity to analyze their movements, as well as others with which you synchronize. Analyzing the behavior of children from the application of motion games, I noticed that they are able to express what they want to do, they are able to manage their energy to perform more activities interact much more slowly and they become extroverts. This analysis is a primary one, but taking into account the method of conversation conducted on the basis of predetermined questions that you've applied to 15 children aged over 10 years, they replied that they want to do sports when they grow up, which proves that they have realized the importance of sports.

Also, children said that the activities we did were pleasant, the more they liked folk dance “Ciobănașul”, which is gratifying because as he says also Ch. Buhler „, the child that plays, learns to accept and fulfill a duty”. At the last question addressed to children “How do you feel after dancing?”

the responses were "we enjoy a lot", "I like because I learned quickly than Catalin ", "I'd like to dance every day so come to us more often".

Thus, taking into account the responses of children and what we have seen over time, I would say that our goal is to make children more extroverted, to make them communicative, to express ideas and desires, has been reached.

Responding to the second question of the research, from my experience, I can say that the program must include for institutionalized children many games, while learning the basics of different materials, team activities. The supervisors of such institutions, I believe that they should be more flexible, to listen to the views of children, try to motivate them, understand their desires, focusing on the idea that children's health status is important.

Conclusion:

The program implemented improved life style and had an effect on the osteo-articular system, nervous system, the cardiovascular system and respiratory. Institutionalized children were considered in numerous studies by American researchers in Romania as being aggressive, having mental problems as having a low intellectual capacity and because being institutionalized they can bring numerous health problems due to poor conditions. These things I think that can be changed by allocating a number of hours in which to carry out physical activities, motion games, activities involving both concentration and timing, as this can develop physical ability, mental state of a child did not know what the concept of family. The work is a first step in developing a longitudinal type study, which aims to highlight developments in health, functional capacity and driving to different age groups of institutionalized children.

Mini-questionnaire:

1. Do you like the activities we perform here?
 - a. yes
 - b. no
2. Which activity of those carried, you like most?
3. Do you want to do a sport when you grow bigger? (volleyball, tennis, basketball, handball, dancing)
4. How do you feel after hours of dance courses?

Bibliography

- BADIU, T., IACOB, I., (1997), *Exerciții, complexe de exerciții și jocuri de mișcare pentru copii*, Iași, Editura Universității „Al. I. Cuza”.
- CÂRSTEA, Gh. (1999), *Educație fizică. Fundamente teoretice și metodice*, București, Casa de Editură Petru Maior.
- SĂBĂU, E., (2003), *Jocuri de mișcare-fundamente teoretice și metodice*, București, Editura Arvin Press.
- STĂNESCU, M., CIOLCĂ, C., URZEALĂ, C. (2004), *Jocul de mișcare-metodă și mijloc de intruire în educația fizică și sport*, București, Editura Cartea Universitară.
- TODEA, S., F., (2002), *Jocuri de mișcare*, București, Editura Fundației România de Mâine.

PSYCHIATRIC CO-MORBIDITIES AND CYCLIC VOMITING SYNDROME (CVS) – CASE STUDIES AND UPDATED LITERATURE REVIEW

RAMKRISHNA MAKANI¹, TAPAN PARIKH², INUA MOMODU³, INES CHICOS⁴

¹Second Year Psychiatry Resident, Department of Psychiatry, Cooper University Hospital/AtlantiCare Regional Medical Center, Cooper Medical School of Rowan University, Camden, NJ.

²First Year Psychiatry Resident, Department of Psychiatry, Cooper University Hospital/AtlantiCare Regional Medical Center, Cooper Medical School of Rowan University, Camden, NJ.

³Chairman, Department of Psychiatry, AtlantiCare Regional Medical Center, Pomona, NJ.

⁴ PhD Program, University of Bucharest, Romania

Corresponding author: makani-ramkrishna@cooperhealth.edu

Abstract

Background. Cyclic Vomiting Syndrome (CVS) is a common, functional, and debilitating disorder characterized by recurrent episodes of intractable nausea, vomiting, and abdominal pain separated by symptom free period. Psychiatric disorders are frequently associated with cyclic vomiting syndrome however little is known per available literature. This manuscript presents two cases and updated literature review on psychiatric co-morbidities and cyclic vomiting syndrome which may improve understanding and increase the scope of the treatment.

Methods. All articles were retrieved online by searching Medline, PubMed, PsycINFO, Psychiatry Online, and Cochrane Library. The Medical Subject Heading (MeSH) term 'Cyclic Vomiting Syndrome' was searched. This search was further refined by adding, 'psychiatric disorders, psychiatric comorbidities, anxiety, depression, affective disorders'. Each topic was searched separately for clinical trial, multicenter studies, randomized controlled trials, classical articles, case reports, review articles, Meta-analysis from year 1990 till date and only most relevant published articles were retrieved from the above mentioned journals.

Results. Anxiety disorders and mood disorders such as panic attacks, major depression, and dysthymia are most commonly associated psychiatric disorders in patients with cyclic vomiting syndrome. Current literature strongly recommend pharmacotherapy such as valproate, barbiturates, cyproheptadin, amitriptyline, propranolol, erythromycin, mirtazapine, and L-carnitine and psychotherapy such as cognitive behavioral therapy as prophylaxis and intravenous fluids, ondansetron, and sedation with intravenous lorazepam during vomiting phase. However, till date there is no evidence based treatment available. Our case study with two cases supports prophylaxis approach of the treatment along with vomiting phase treatment. Use of marijuana is still controversial and sometimes hot showers help patients to relieve their anxiety.

Conclusion and Summary. Cyclic Vomiting Syndrome is difficult to treat and requires integrated approach of medicine and psychiatry team due to frequently associated psychiatric symptoms. Due to exact unknown pathophysiology, lack of awareness among health care professionals, and lack of evidence based literature and treatment; it remains an ongoing challenge for the patients to seek early treatment. Further research warranted to explore evidence based management based on prospective randomized controlled trials.

Keywords: Cyclic Vomiting Syndrome, attention deficit hyperactivity disorder, oppositional defiant disorder, major depression, anxiety disorders, cognitive behavioral therapy, amitriptyline, Coenzyme Q10, L carnitine.

Introduction

Cyclic vomiting syndrome (CVS) is a functional yet dramatic and debilitating clinical syndrome characterized by intense and recurrent episodes of intractable nausea and vomiting lasting for hours to days interspersed with relatively symptom-free intervals that might last anywhere from a few days to several months. It was first described in English pediatric literature by Samuel Gee as "fitful or recurrent vomiting" and presented case series of nine children in 1882. Although it is mainly considered pediatric functional gastroenterology disorder, over next 130 years, CVS is now increasingly recognized among adult population and is seen more in medical literature rather than pediatric journals. Till date, exact etiology and pathogenesis is unknown however based on the available literature, there have been some pathophysiologic associations with migraines, dysfunction

of mitochondria, and neuroendocrine abnormalities (Sunku B., 2009). Prevalence of CVS in pediatric population is thought to be approximately 0.04–2% and in adults, exact prevalence is not known (Hejazi *et al.*, 2011).

Table 1 depicts the comparison between children and adults with cyclic vomiting syndrome. Typically, Rome III diagnostic criteria used for CVS diagnosis which includes stereotypical episodes of vomiting with acute onset and duration less than 1 week, three or more discrete episodes in prior year, absence of nausea and vomiting between episodes and symptoms last usually for 3-6 months with excluding all other possible medical causes for vomiting and abdominal pain (Abell TL *et al.*, 2008).

Psychiatric symptoms in patients with CVS are not well studied so far. A little is known about psychiatric co-morbidities in patients with CVS and per available literature, it has been suggested that anxiety disorders and depressive symptoms are the most common psychiatric findings among patients with CVS. In this manuscript, we present two cases and current literature review of psychiatric co-morbidities in patients with cyclic vomiting syndrome which may help increase understanding of illness and possible management.

Table 1. *Comparison between children and adult CVS*

Features	Children	Adults
Age of onset	4-8 years	21–35 years
Delay in diagnosis	1.9 years	7.9 years
Prevalence of CVS	2.00%	Unknown
Female: male ratio	Female>male	Unknown
Typical episode duration	27 hours	3–6 days
Median frequency of episodes	4 weeks	3 months
Interepisodic symptoms	Uncommon	50–63%
Prodromal symptoms	67.00%	93.00%
Abdominal pain with episodes	81.00%	58.00%
Recurring triggers for episodes	76.00%	63-80%
Migraine association	39-87%	24-70%
Associated psychiatric manifestations	Common (anxiety and depression)	Common (anxiety and depression)
Cannabis abuse	None reported	Reported

Methods and Search Strategy for literature review

All articles were retrieved online by searching Medline, PubMed, Psych info, Psychiatry Online, and Cochrane Library. The Medical Subject Heading (MeSH) term ‘Cyclic Vomiting Syndrome’ was searched. This search was further refined by adding, ‘psychiatric disorders, psychiatric comorbidities, anxiety, depression, affective disorders’. Each topic was searched separately for clinical trial, multicenter studies, randomized controlled trials, classical articles, case reports, review articles, Meta-analysis from year 1990 till date and only most relevant published articles were retrieved from the above mentioned journals.

Results

Two cases we observed and treated have been described in detail below. Results of literature review are narrated in Discussion section.

Case 1: A 22-year-old, Caucasian, female, with no known past medical history and no know prior psychiatric history presented to AtlantiCare Regional Medical Center (ARMC) with the

complaints of intractable vomiting, nausea, and abdominal pain that first started three years ago, usually occurring about eight to ten times/year and lasts about six to eight days each time, associated with severe anxiety, shaking whole body severely during vomiting phase. Patient denies associated diarrhea and concomitant headaches. Extensive medical work up has been done including laboratory tests such as complete blood count, metabolic panel including liver function tests, amylase, lipase, thyroid function tests, pregnancy test and a urinalysis, electroencephalography (EEG), electrocardiogram (ECG), and cranial MRI, abdominal ultrasonography, abdominal pelvic computed tomography, routine barium studies and endoscopic evaluation with biopsy were normal. Although no significant pathology was observed, patient received treatment with all available proton pump inhibitor medications, and pain medications. After ruling out all causes of vomiting and abdominal pain, cyclic vomiting syndrome (CVS) was diagnosed by gastroenterology and medicine team. Psychiatry was consulted for “anxiety and possible substance abuse”. Patient had been on fluoxetine, duloxetine, sertraline, venlafaxine, citalopram, quetiapine, olanzapine, asenapine, clonazepam, diazepam, lorazepam with no relief. Patient was also smoking marijuana at least eight times/day to relieve anxiety and nausea which was helping her when she first started abusing but recently it was not helping her. Patient has also tried hot shower and sitz bath with no success. Patient was a student from local university but she had to leave the school and later work due to untreated current illness which caused her trouble to even attend the class. Patient also reported symptoms free period where she functions as a normal person however once cycle starts; she is not able to function at all. Her anxiety becomes worst during the vomiting phase and thus she was started on intravenous lorazepam, ondansetron, and intravenous fluids during the vomiting phase. Vomiting phase subsided in two days and then patient was started on amitriptyline 25 mg at bedtime per oral upon discharge as a prophylaxis. Patient was readmitted to the hospital for another episode of CVS, patient has been treated the same way and amitriptyline dose was titrated up to 75 mg bedtime per oral and since then patient has been doing better and has not returned to the hospital for any further episode, for at least 3 months. In order to evaluate the side effects of this treatment, regular blood tests, ECG and eye examinations were performed. Drug-related side effects were not observed.

Case 2: A 19-year-old, Caucasian, female with no known prior medical and psychiatric history presented to ARMC with the complain of nausea, vomiting, and abdominal cramping that first started about a year ago, occurs about every two to three months and usually lasts four to five days, associated with anxiety symptoms. Patient denied associated fever, chills, diarrhea, and hematemesis, black or tarry stools. Battery of tests including complete blood count, comprehensive metabolic panel including liver function tests, amylase, lipase, thyroid function tests, pregnancy test, urinalysis were performed and they came back as negative and within normal limits. Electroencephalogram, CT scan of head and MRI of brain were done and they were negative. Gastroenterologist evaluated patient as outpatient and performed abdominal ultrasonography, abdominal pelvic computed tomography, routine barium studies and endoscopic evaluation which also came back as normal. Patient was officially diagnosed by her gastroenterologist to have cyclic vomiting syndrome after ruling out all causes of vomiting and abdominal pain. Meanwhile, patient was given lorazepam as needed for anxiety and ondansetron, metoclopramide, pantoprazole, pain medications with no improvement. Patient was seen by outpatient psychiatrist who started on lorazepam and sertraline however patient was only taking lorazepam as needed for anxiety. Patient started smoking marijuana to help relieve anxiety and vomiting which was helping her initially but then was not having any effect. Psychiatry was consulted on medical floor for 'anxiety treatment'. After detailed history and carefully reviewing all medical records including collateral information from mother and outpatient gastroenterology team, it appeared that her anxiety symptoms mainly appeared during the vomiting phase and getting worst during that time and once that phase is over, her anxiety symptoms also subsides. Patient and mother also reported that she usually functioned as a normal person during symptom free interval and having no trouble in her first semester at a local university. Patient was treated with intravenous fluids, intravenous lorazepam, and ondansetron during vomiting phase which subsided within two days and then after detailed discussion with primary team, patient, and mother, patient was started on amitriptyline 50 mg at bedtime for prophylaxis of CVS. Since then, patient has been doing better and

has not returned to the hospital, for at least 3 months. Regular laboratory work up, ECG, and physical examination have not revealed any side effects of medication thus far.

Discussion

Cyclic Vomiting Syndrome (CVS) is considered as a functional disorder due to unknown exact pathophysiology. CVS is characterized by four phases: 1) Asymptomatic phase where the person is without symptoms; 2) Pre-emetic or prodromal (prior to vomiting) phase characterized by pallor, intense sweating and intense nausea; 3) Intense vomiting or emesis phase – up to 20–30 vomiting episodes essentially retching which can last usually from 1 to 4 days or, in some cases, up to a week; 4) Recovery phase where the patient’s vomiting decreases, the nausea improves and the patient is able to take liquids by mouth (Hejazi *et al.*, 2011) (Figure –1).

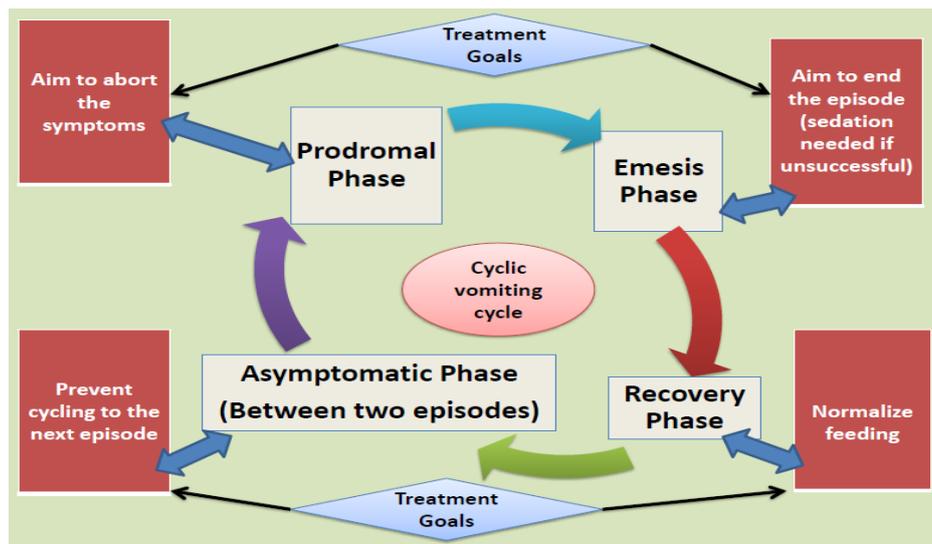


Fig. 1. Different phases of cyclic vomiting syndrome

Psychiatric symptoms mainly anxiety and depression are most commonly observed in prodromal and acute (emetic) phase. Based on the available literature, most commonly associated psychiatric disorders are anxiety disorders and mood disorders mainly major depression and dysthymia. However, other less frequently associated psychiatric disorders are Attention Deficit Hyperactivity Disorder (ADHD), Oppositional Defiant Disorder (ODD), and somatization disorder. A published pilot study done in Wisconsin among children and adolescents with CVS depicted that about 54 % of adolescents have met cut off criteria for anxiety disorders, most common being generalized anxiety disorder and specific phobia; about 15-18% met criteria for major depression and dysthymia (Tarbell *et al.*, 2008).

Another study depicted that depression and anxiety are most common comorbid psychiatric disorders in patients with CVS however it is difficult to delineate between contributing factor versus the result of stressful syndrome. Panic disorders are the most common among anxiety disorders which is supported by the fact that in acute attack, treatment of choice is intravenous lorazepam (Namin *et al.*, 2007).

Cyclic vomiting syndrome in adults has the hallmarks of abdominal pain and higher rates of anxiety and depression, rapid gastric emptying and tachygastric EGG, and successful suppression of attacks by chronic amitriptyline therapy. Amitriptyline administered in doses in the higher range is important in improving patient’s symptoms over time. The exact mechanism of action of amitriptyline in CVS is not clear however it is hypothesized by some that it acts by modulating the vomiting through its antihistaminic, anticholinergic, and serotonergic effects.

Management of cyclic vomiting syndrome and associated psychiatric co-morbidities is still not evidence based, under investigational phase and sometimes troublesome for clinicians. Management usually requires both pharmacological and psychosocial interventions. Current literature

suggested various pharmacological agents such as valproate, barbiturates, cyproheptadin, amitriptyline, propranolol, erythromycin, mirtazapine and L-carnitine as a prophylaxis and intravenous fluids, ondansetron, sedation with intravenous lorazepam during vomiting phase. Table 2 depicts available options for acute and prophylaxis phases.

The role of psychotherapy such as cognitive behavioral therapy and a multidisciplinary approach have also been favorable in children. This approach is yet to be tried in adults and exploring this area in combination with amitriptyline may further increase the remission rate (Slutsker *et al.*, 2010). Role of Marijuana use and hot shower use in CVS is still controversial and unclear as sometimes marijuana use can induce vomiting as well as in some cases it helps with nausea and vomiting where as hot shower has no clear benefit in any phase of CVS (Venkatesan *et al.*, 2014).

Table 2. Medications for Vomiting Phase and Prophylaxis (Ozdemir *et al.*, 2014)

Vomiting or Acute phase	Prophylaxis
IV fluids mainly glucose 10%	Amitriptyline (0.25-1.5 mg/kg/day)
IV Ondansetron (0.3-0.4 mg/kg)	Propranolol (0.25-1 mg/kg/day)
IV Omeprazole (1 mg/kg/day)	Erythromycin (20 mg/kg/day)
IV Lorazepam (0.05-0.1 mg/kg/day)	Coenzyme Q10 (10 mg/kg/day)
IV Chlorpromazine (0.15-0.3 mg/kg/day)	Carbamazepine (5-10 mg/kg/day)
IV Diphenhydramine (1-1.25 mg/kg/day)	Cyproheptadine (0.25-0.5 mg/kg/day)
Sumatriptan Oral 25-50 mg OR intranasal 10 mg	Pizotifen (0.5-1 mg/day)

Summary and Conclusions

Cyclic Vomiting Syndrome is a common, idiopathic functional disorder that is difficult to treat and requires integrated approach of Medicine and Psychiatry teams. Currently available literature portrayed that there is a high prevalence of psychiatric disorders mainly anxiety disorders and depressive disorders in both, children and adults suffering from cyclic vomiting syndrome. These findings strongly suggest the careful and detailed evaluation and screening of psychiatric disorders in patients who have cyclic vomiting syndrome as if untreated, the consequences may have significant impact on medical and mental health and can lead to significant impairment in social, family and academic lives of suffering patients as seen in cases presented in this manuscript. Although, with current treatment approach, overall good response can be expected if diagnosed and treated on time, it provides some hope for the patients however the long term outcomes and natural history in children and adults will require more randomized controlled studies with larger sample sizes. Also, lack of awareness among health care professionals presents great deal of challenge in the early diagnosis and treatment.

References

- Abell TL, Adams KA, Boles RG, Bousvaros A, Chong SK, Fleisher DR, Hasler WL, Hyman PE, Issenman RM, Li BU, Linder SL, Mayer EA, McCallum RW, Olden K, Parkman HP, Rudolph CD, Tache Y, Tarbell S, Vakil N. Cyclic Vomiting syndrome in adults – review article. *Journal of Neurogastroenterology motility*. 2008; 20: 269-284.
- Boles RG. High degree of efficacy in the treatment of cyclic vomiting syndrome with combined co-enzyme Q10, L carnitine and Amitriptyline, a case series. *BMC Neurology*. 2011 11:102.
- Coskun M, Alyanak B. Psychiatric Co-morbidity and efficacy of Mirtazapine treatment in young subjects with chronic or cyclic vomiting syndromes: A case series. *Journal of Neurogastroenterology and Motility*. 2011; 17 (3): 305-311.
- Hejazi RA, McCallum RW. Review article – cyclic vomiting syndrome in adults – rediscovering and redefining an old entity. *Alimentary Pharmacology and therapeutics Journal*. 2011; 34: 263–273.

- Kim HS, Anderson JD, Saghafi O, Heard KJ, Monte AA. Cyclic Vomiting presentation following Marijuana liberalization in Colorado. *Academy of Emergency Medicine*. 2015; 22 (6): 694-699.
- Namin F, Patel J, Lin Z, Saroziek I, Foran P, Esmaili P, Mccallum R. Clinical, psychiatric and manometric profile of cyclic vomiting syndrome in adults and response to tricyclic therapy. *Journal of Neurogastroenterology and Motility*. 2007; 19 (3): 196-202.
- Ozdemir HH, Bulut S, Berilgen MS, Kapan O, Balduz M, Demir CF. Resistant Cyclic Vomiting Syndrome successfully responding to Chlorpromazine. *ACTA MEDICA (Hradec Králové)* 2014; 57(1):28–29
- Slutsker B, Konichezky A, Gothelf D. Breaking the cycle: Cognitive behavioral therapy and biofeedback training in a case of cyclic vomiting syndrome. *Journal of Psychology, health and medicine*. 2010; 15 (6): 625-631.
- Sunku B. Cyclic Vomiting syndrome – disorder of all ages. *Journal of Gastroenterology and Hepatology*. 2009; 5 (7): 507-515.
- Tarbell S, Li BU. Psychiatric symptoms in Children and Adolescents with cyclic vomiting syndrome and their parents. *Journal of Headache*. 2008. 48: 259-266.
- Tarbell SE, Li, BU. Anxiety measures predict health related quality of life in children and adolescents with cyclic vomiting syndrome. *The Journal of Pediatrics*. 2015; 167: 633-8.
- Venkatesan T, Sengupta J, Lodhi A, Schroeder A, Adams K, Hogan WJ, Wang Y, Andrews C, Storr M. An Internet survey of Marijuana and Hot shower use in adults with Cyclic Vomiting Syndrome (CVS). *Journal of Exp Brain Res*. 2014; 232 (8): 2563-2570.

IDENTITY COMPONENT ASSESSMENT STUDY ON ADOLESCENTS

Studiu privind evaluarea componentelor identității la adolescenți

OANA CRISTINA PETRESCU¹*

¹ *University of Agronomic Sciences and Veterinary Medicine from Bucharest*

Faculty of Animal Husbandry, Bucharest, Romania

* Corresponding author: stoicescuoana1980@yahoo.com

Abstract

Background. From sociological point of view, the term identity is put in correlation with the concepts of behavior and social role. The negotiating of the identity arises from the process of learning of social roles through personal experience – from the interaction with other members of the society, the individual establishes the meaning of his identity, meaning recognized and accepted by the others.

For their part, specialists in psychology often use the term identity to describe the uniqueness of an individual based on his idiosyncrasies. Instead, sociologists often use this term in the sense of social identity, which involves group features that define the individual. However, when analyzing the identity of a person, each of the subjects may also use any of the meanings of the concept according to the necessities

Purpose. Investigating the perception of the specialists on the role of identity in adolescents who are practicing or not a sporting activity.

Methods. To accomplish the purpose, we conducted a questionnaire survey type on teachers, coaches and psychologists who work with adolescents for finding out how far the sport has or has not an important role in identity formation in adolescents. The research was made as a structured questionnaire based survey addressed to a number of 30 specialists, namely: teachers, coaches, psychologists - working with adolescents. The questionnaire consisted of 8 items, closely related to issues addressed in this study.

Results. The study revealed that the majority (over 70%) of those involved in education and training of teenagers consider this as an important step in the formation of identity, self-image of the teenager, 20% are of the opinion that this variable is an important link in the process of identity formation in this stage of life, and only 7% believe clearly that adolescence is not an important factor. Regarding the self-identity - a mainstay of personality, the results showed that 60% of specialists in the study believe that self-identity represent a pillar with a great importance in the structure of the personality. Over 70% of those involved in education and training of teenagers consider it an important step in the formation of identity, self-image of the teenager, 20% are of the opinion that this variable is an important link in the formation of identity in this stage of life, and only 7% believe clearly that adolescence is not an important factor.

Conclusion. Following those presented, we believe that the results of this research can be prerequisites for future research.

Keywords: identity, self-esteem, teenagers.

Introduction

As pointed Benedict (1983), the term identity is a generic term used in all the social sciences to describe the concept and expression of individuality of a person, conception and expression to be determined also by the affiliations of a person to various groups (implying identity group: cultural identity, national, social, etc.). The term is used with specific meanings in different areas of knowledge such as psychology, sociology, social psychology, etc.

Identity is often characterized by the interpersonal features someone has, such as self-definition or personality traits, roles and relationships that they assume in different interactions and personal values or moral beliefs (Calvert, 2002). Identity also involves a sense of continuity of the self image over time (Grotevant, 1998), a continuity that can be disrupted when puberty creates radical changes in one's physical appearance. The purpose of this investigation is the specialists' perception over the role of identity in adolescents who practice or do not practice a sporting activity.

Material and method

Material. To achieve the purpose I conducted a questionnaire type survey on teachers, coaches and psychologists who work with adolescents to help determine the extent to which sport or the lack of it plays an important role in identity formation in adolescents. The research was performed on a structured questionnaire based survey which addressed a number of 30 specialists, namely: teachers, coaches, psychologists - who work with adolescents.

Method. The questionnaire consisted of 8 items, closely related to issues addressed in this study. Thus, the questionnaire items targeted questions about the benefits of sport to the human being; teenagers and its importance in sports; adolescence and its role in the formation of self-identity; the role of sport in identity formation. As a research tool, the purpose of this questionnaire was to measure attitudinal and behavioral characteristics of subjects and probe them, in both cases, the analysis of data obtained being both quantitative and qualitative.

Results

Through the investigation we obtained a great deal of information on their views on the role of sport in identity formation in adolescents. Data were statistically analyzed and processed with the IBM SPSS Statistics for psychology. The answers to the questions in the questionnaire construction are presented and interpreted for each item. Thus, the graphical representation of the responses on the questionnaire item 1 – Do you think that sport is beneficial to the human being? points out that research subjects are aware of the benefits of sport for the human being in 80%.

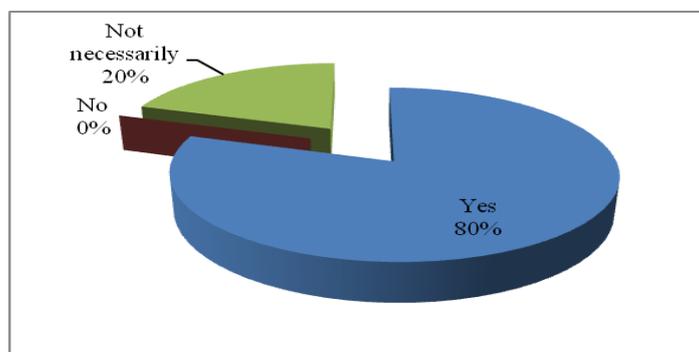


Fig. 1. The graphical representation of the responses to the item you Consider that sport is beneficial for the human being?

From the chart above we can see that the practice of sport among the population, regardless of the age group to which it belongs, is a form of health education. These results join existing research according to which man is first and foremost a biological being whose structural-functional components are, generally and specifically, influenced by movement and function to optimize the biological potential is, in fact, pointing out to all the influences acting on the human body.

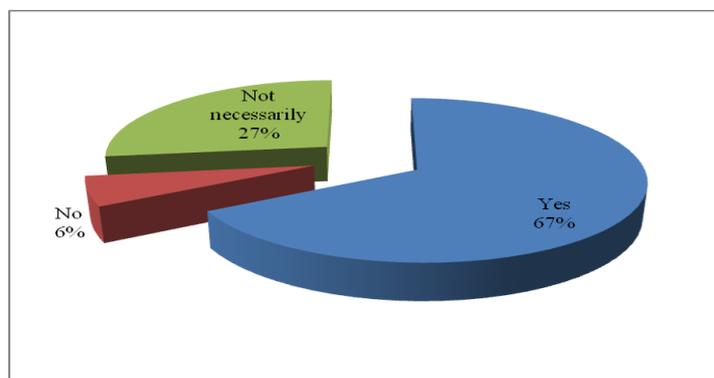


Fig. 2. Graphical representation of the responses to the item you Consider adolescence a significant period of sportsmanship?

The second item in the construction of the questionnaire focused on adolescence as an important period in practicing sport. From the specialists' answers it can be concluded that over 60% attach great importance to adolescence – the optimal period on sport. It is true because of the anatomical and physiological point of view, adolescent body goes through many changes in a short time. These issues are not only leading to physical and psychological discomfort, but also to moments of distrust, uncertainty, shame, excitation or inhibition. Thus, practicing sports during adolescence can be a means to effectively combat these states because sport helps to harmonize adolescent body and, moreover, is the most pleasant way to release tensions.

However, those who practice a form of movement, regardless of shape or form, escape many extra kilos gained at this age due to slowed metabolism. On the other hand, sport is a healthy alternative to less dynamic, or even effortless activities, such as a TV or computer use. Item 3 in the construction of the questionnaire aimed to find out the opinion of specialists on adolescence as an important period in the formation of self-identity. From the chart below we can see that the majority (over 70%) of those involved in education, training teenagers consider it an important stage in the formation of identity, self-image of the teenager, 20% of them believe that this variable is an important link in the process of identity formation in this stage of life, and only 7% believe clearly that adolescence is an important factor.

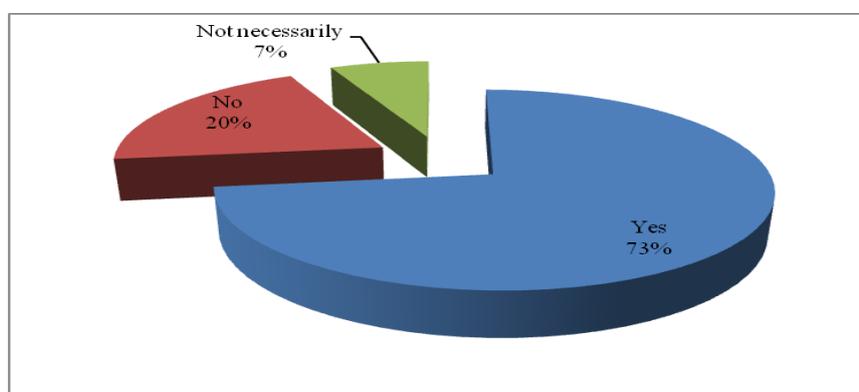


Fig. 3. Graphical representation of the responses to the item *Adolescence is an important step in the period of self-identity formation?*

Although there is a wide range of studies showing the health benefits of aerobic exercises regularly practiced by adults, few of these studies focus on children and adolescents (Kirkcaldy and Siefen, 2002). The results of this study aligns to other European level studies. The fact that a large number of specialists attach special importance to adolescence identity formation means that they know the psychological and physiological adolescence specific mechanisms because the teenage years are a period of somatic and psychosocial development as well as of many social expectations from family, schoolmates or social group in which the teenager belongs. With the development of cognitive, social, cultural abilities, among the major goals of education at school or secondary schools level – can be found ways of formation of certain skills and competencies – to develop self esteem and a positive image. Thus, one of these ways is to practice sports. Regarding the self-identity – a mainstay of personality, the results showed that 60% of specialists in the study believe self-identity to be high on a pillar with a great importance in the structure personality (graph 4).

Compared with our study, several dimensions of self-image were measured in similar studies (Simmons, Rosenberg and Rosenberg, 1973). Thus, a study conducted on 1,917 classes of pupils from third to twelfth. The results showed that those aged twelve and thirteen, were shown to exhibit enhanced self-awareness, greater instability of self-image, self-esteem slightly lower. Study researchers concluded that the environment in which the child grows and develops can have a stronger effect than his age in producing such changes and teenagers in high school seem to be more affected in these respects than those of elementary school age.

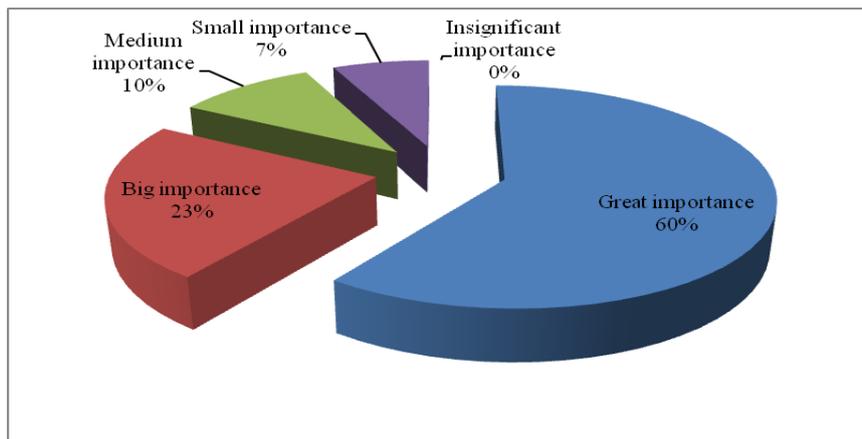


Fig. 4. *The graphical representation of the responses to the item you Consider self-identity as the mainstay of personality?*

Regarding the role of sport in identity formation, the results are shown in the chart. 5. Thus, 56% of respondents believe that sport has a major role in adolescent identity formation. In this research we rally those who believe that adopting an active lifestyle is often associated with positive attitude to exercise. Since 1994, Theodorakis stated that this issue had created several models, while in the sport psychology, models have attempted to provide practical answers to preserve as many participants in sports as regular exercise, and to increase our understanding of factors that influence health-related behavior voluntarily. According to Fishbein and Middlestadt (1987, as cited Theodorakis 1994) the more is known about these factors that underlie the formation of a behaviour or a decision, the higher the possibility of influencing the conduct. In other words, sport can play a factor in shaping adolescent behavior.

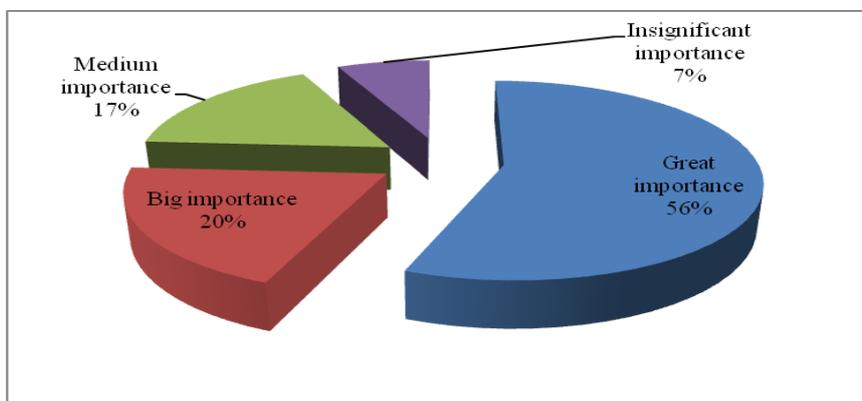


Fig. 5. *Graphical representation of the responses to the item What is the role of sport in identity formation?*

Graph 6 highlights once again the importance and the role of sport in adolescents. Referring to similar studies that have been conducted worldwide, the lack of physical activity among teenagers major impacts on the group identity, researchers results predicted the later substance consumption. Thus, the youth involved in physical activities have higher self-esteem, higher self-esteem than those who do not practice a sport and are much more likely to graduate from high school (Barber, Eccles and Stone, 2001).

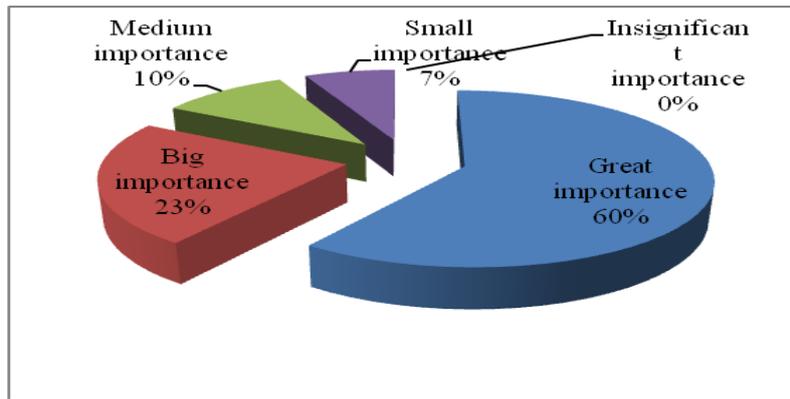


Fig. 6. The graphical representation of the responses to the item *You consider that sport plays an important role in identity formation in adolescents?*

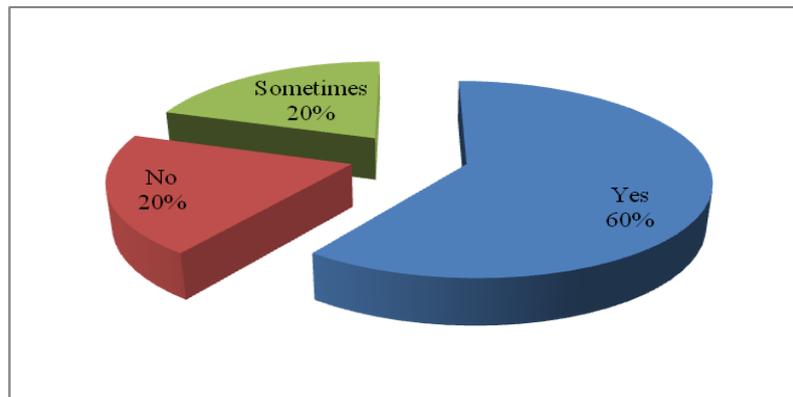


Fig. 7. The graphical representation of the responses to the item *You consider that there are differences in identity formation among adolescents who practice collective sports and individual sports?*

Regarding the differences between adolescents who practice collective sports and those who practice individual sports, over 70% of respondents believe that there are differences in identity formation between these two categories of athletes.

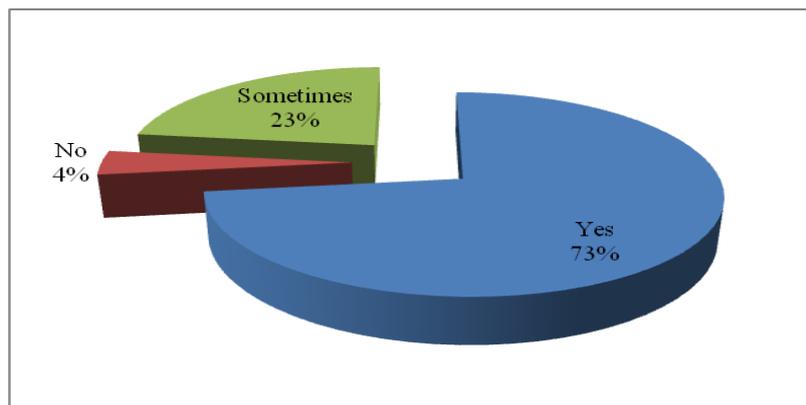


Fig. 8. The graphical representation of the responses to the item *You believe that self-identity is evident in adolescents who practice sport compared to those who do not?*

From the chart above we can see that most experts believe that self-identity is evident in adolescents who practice sport compared to those who do not .

Conclusions

The research results join scientific studies identified in the literature. In this comparative study conducted by Colley, Roberts and Chipps (1985) on a total of 24 male subjects and 24 female subjects participating in university championships to team sports, namely on 24 male subjects and 24 female subjects participating in university championships to individual sports as well as 24 male subjects and 24 female subjects who did not practice any sport, showed those who practice a sport get higher scores on extroversion and masculinity than the non participants. Female subjects who do not practice sports have lower scores on extraversion than those in sport.

The study also showed that gender identity from female subjects in sport has much higher values than those who do not practice any sport. Gender identity in team sports tend to be androgynous type, while this individual identity in individual sports participants tend to be insignificant (Colley, Roberts and Chipps, 1985). Over 80% of respondents, as specialists, are aware of the benefits of practicing sport on the human being: sport among the population, regardless of the age group to which it belongs, is a form of health education. Over 60% of specialists in the study attache great importance to adolescence as the optimal period on practicing sport.

It is true because, from anatomical and physiological point of view, adolescent body goes through many changes in a short time. Over 70% of those involved in education, training teenagers consider it an important stage in the formation of identity, self-image of the teenager, 20% of them believe that this variable is an important link in the process of identity formation in this stage of life, and only 7% believe clearly that adolescence is an important factor.

Regarding the self-identity – a mainstay of personality, the results showed that 60% of specialists in the study believe self-identity to be high on a pillar with a great importance in the personality structure. However, 56% of respondents believe that sport has a major role in adolescent identity formation.

Preliminary results support the fact that there was a significant association between specialists perception about the benefits of practicing sport on the human being and adolescence – as a crucial time for sport, influencing the process of adolescent self-image formation. Thus, we can say that there was a significant association between specialist's perception about the benefits of practicing sport on the human being and the role of sport in forming adolescent identity.

In conclusion, we believe that preliminary research results constitute prerequisites for future research.

References

- BENEDICT. A., (1983), *Imagined Communities. Reflections on the Origin and Spread of Nationalism*. London: Verso, 1983.
- CALVERT, S. L., (2002), *Identity construction on the internet*. In S. L. Calvert, A. B. Jordan & R. R. Cocking (Eds.), *Children in the Digital Age: Influences of Electronic Media on Development* (pp. 57–70). Westport, CT: Praeger. Web of Science® Times Cited: 43.
- KIRKCALDY, B. D., SHEPHARD, R. J., & SIEFEN, R. G., (2002), *The relationship between physical activity and self-image and problem behaviour among adolescents*. *Social psychiatry and psychiatric epidemiology*, 37(11), 544-550.
- SIMMONS, R. G., ROSENBERG, F., & ROSENBERG, M., (1973), *Disturbance in the self-image at adolescence*. *American Sociological Review*, 553-568.
- THEODORAKIS, Y. (1994). THEODORAKIS, Y., (1994), *Planned behavior, attitude strength, role identity, and the prediction of exercise behavior*. *The Sport Psychologist*, 8, 149-165. *Psychologist*, 8, 149-165.
- BARBER, B. L., ECCLES, J. S., & STONE, M. R., (2001), *Whatever happened to the jock, the brain, and the princess? Young adult pathways linked to adolescent activity involvement and social identity*. *Journal of adolescent research*, 16(5), 429-455.
- COLLEY, A., ROBERTS, N., & CHIPPS, A., (1985), *Sex-role identity, personality and participation in team and individual sports by males and females*. *International Journal of Sport Psychology*.

SELF-ESTEEM – VECTOR OF ADOLESCENT PERSONALITY

Stima de sine – vector al personalității adolescentului

OANA CRISTINA PETRESCU¹*

¹ *University of Agronomic Sciences and Veterinary Medicine from Bucharest*

Faculty of Animal Husbandry, Bucharest, Romania

* Corresponding author: stoicescuoana1980@yahoo.com

Abstract

Background. Adolescence is replete with conflicts, either against society, of norms and values set by adults, either inside their own motivations and needs. Some authors speak of conflict existence between generations or between different age groups. Self-esteem includes a mental provision that prepares the individual to react according to his expectations of success, acceptance and personal determination. Self-esteem is the expression of an approval or disapproval on himself. It indicates the extent to which an individual is believed capable and important. It is a subjective experience that translates equally well both verbally and through significant behaviours.

The purpose of this article is represented by highlighting the concept of self-esteem as part of adolescent personality.

Keywords: *self-esteem, personality, teenagers.*

Introduction

Gerald and Berzonsky (2009), believes that talking about personality is talking about MAN; personality entails human existence, both substantially and spiritually and a whole set of values historically accumulated, acquired by man, in the present and projected in future. The human personality is one of the most complex phenomena in the universe; it is an extremely complex reality (as it integrates a variety of components, different in structure, function and purpose – biological, psychological, social, axiological, historical) and a dynamic one (though it has relatively stable traits, is developing over time, both in phylogenetic and ontogenetic fields).

The purpose of this article is represented by the highlighting of the concept of self-esteem as part of adolescent personality, based on literature review.

Theoretical approaches on teens

Adolescence is replete with conflicts, either against society norms and values set by adults, or inside their own motivations and needs. Some authors talk about the existence of conflicts between generations and between different age groups. Sillamy (1996) defines adolescence as a period of life that lies between childhood – which continues – and adulthood. In turn, Șchiopu and Greens (1989) believe that adolescence begins after age 10 and lasts up to 25 years, the first four years being puberty or preteens. During this period, the child may demonstrate great attention and curiosity that can expand through exploration and what is outside the school and family. At the same time, he/she can develop imitative modeling, as influence "among young people, the interdependence forms among themselves developing forms of contagion and facilitating all kinds of imitations, often aberrant (elements of fashion, lifestyle, behavior, etc.).

Also, adolescence is characterized by charging personality on acquired acquisitions of roles and social statuses related to school life, family and group of friends. In this context, they develop interests and aspirations, ideals and expectations, but also attempts to self-knowledge and self development.

Increasingly extensive exploration, school knowledge and news, creating the broad social integration, acting real building up of social identity, which contributes to the development of social self, are characteristic to adolescent tendencies. Adolescence is the period of reconstitution of personality and its main characteristics, it is the period in which feelings of responsibility and duty – as an expression of social self, are born (Arnaux, 1999).

Self-esteem and adolescence

The difficulties that an individual may face in school or professional lives, often reflect a lack of motivation or engagement in certain required tasks. Interest in professional or school success depends largely on the image that a person has about himself. Positive feelings and capitalization of self-image are important factors for motivating activity (Radu, 1995).

In childhood, individuals form an image about themselves based on how they are treated by people who play an important role in their lives: parents, teachers, friends, classmates etc. Self-esteem is represented by this positive or negative assessment about the self image.

Zlate (2000) defines self-esteem as a set of attitudes and opinions that individuals bring into play, in their relations with the outside world. Confidence in personal achievement, mobilization to achieve the targets, the resentment more or less a failure, improving performance by capitalizing on previous experience are strictly related self-esteem attitudes. In other words, self-esteem includes a mental provision that prepares the individual to react in accordance with his expectations of success, acceptance and personal determination. Self-esteem is an expression of approval or disapproval on himself. It indicates the extent to which an individual is believed capable and important. It is a subjective experience that translates equally well both orally and meaningful behaviors. Some authors consider that in the middle childhood, the individual forms an image of himself that remains relatively constant during life (Popescu and Bruma, 2003). This self assessment will be affected in the course of life events, but apparently finds its usual level when environmental conditions normalize.

It has been demonstrated that the self assessments holds up relatively well to change, the need for coherence and stability is stronger. Attitudes toward self, like all attitudes can be conscious or not. They carry certain affective connotations, either positive or negative, closely related to cognitive and motivational processes. Self-esteem plays an essential role in achieving our psychological balance: when it has a high level and a certain stability, it leads to effective action and it can help us to face difficulties, to achieve good and very good performance and we maintain good relations with others; where self-esteem is unstable and has a low level, the effects consist of inadequacy, frustration, low efficiency in action.

People with personality variables low levels feel they do not really know, talk about themselves rather in a neutral, uncertain, ambiguous way, depending on the circumstances and partners; but they can have a good capacity to adapt to speakers and a sense of shade. They postpone decisions, are often restless, possible consequences of their choices are influenced by the environment in decision making, they are sometimes hesitant or conventional in decision-making. Such people react emotionally to failure, feel rejected if they are criticized in the areas where they are deemed competent, they are justified after obtaining a failure, seeking negative information about them, manifest anxiety in the face of strong evaluation by others; have a good motivation not to fail and ability to listen to criticism.

People with high self-esteem have clear and stable opinions about themselves as they do not depend too much on the context, talk about themselves in a trenchant, consistently positive way; they would make the excess of certainty and simplification; they work effectively, take account of themselves in making decisions, persevere in their judgments, despite the difficulties may be innovative, but sometimes are too sensitive to short-term interests (Șchiopu, 1997, p. 145).

Failure does not leave sustainable emotional traits over such persons, they can withstand criticism on their sensitive points, do not feel obliged to justify any failure nor feel rejected if they are criticized, but it can happen for them to disregard criticism.

People react differently, depending on the level of self-esteem in the face of success, and in terms of important choices in life. Thus, those with low self-esteem do not have a realistic attitude to the success, being unable to be appreciated at their fair value, and, most often attribute success to external factors and not on their own resources; success can produce fear not to be able to comply with the future demands (anxiety joy), that fear of failure; to these fears, many are cautious and do not take

risks, prefer to be mediocre, progressing slowly. Conversely, to people with high self-esteem, success confirms the picture of self-esteem, it causes positive emotions and high motivation; they are, however, dependent rewards. Such people take risks, seek to exceed the limits, feel stimulated by new experiences, they have rapid progress and reasoning based on the successes. In every activity we undertake, we seek to satisfy both indispensable necessities of self-esteem: the need to be loved (appreciated, wanted, liked) and need to be competent (efficient, skillful, gifted).

These needs are required to be satisfied permanently, because self-esteem is a mobile and very important dimension of human personality. A high level of self-esteem can be reached through love and education originally from parents, then, from friends, colleagues, anyone significant for an individual throughout his life.

The question is at what age we speak of self-esteem. The scientific beginnings of self-esteem are correlated with the emergence of self-consciousness which is a component; children, only 8 years old, have a comprehensive mental representation of themselves, which can be evaluated scientifically. But even before that age, we find elements that lay the foundation of self-esteem (Șchiopu, 1997, p:162).

Thus the concept of self-esteem is closely linked to the idea of social acceptance (the extent to which an individual is liked by the group to which it belongs) which occurs in children of 3-4 years, but a willingness of valuing the self is encountered in 5-8 years old children (Munteanu, 2004).

Experiences during childhood are the foundations of self esteem, the manner in which the child is taught to cope with success and failure, how is supported by his parents, by the type of relationship that you establish and cultivate with others. Thus, good resistance to failure, school performance, good relations with children of the same age, awareness of areas of competence are factors that lead to the establishment of a high level of self-esteem.

In the universe of a child, there are four significant judgments sources (sources of self-esteem): parents, teachers, (school) classmates and close friends. In young children, the parents exert more influence; during the development, what friends think is important in terms of physical appearance, sports skills and popularity; parents' opinion remains important in conformist behavior and that of school success (Șchiopu, 1997, p. 172).

Parental approval is important during adolescence, this decreasing in importance only when the young leaves the family. Parental support in forming a good self-esteem is very important because the baby feeds on the love received from his parents. Also, schooling and how the child perceives the change since the beginning of schooling, influence both the level and the stability of self-esteem. The child should be prepared to be socially competent, to feel at ease in groups, to assert without aggression or boastfulness, to succeed in the tasks required by the company to be desired, accepted, approved and admired by those around him. And for this training to be carried out, it is necessary that parental support can be of two types: unconditional or conditional (child's behavior) (Șchiopu, 1997, p. 86).

Unconditional support appears to influence the level of self-esteem (as the child is loved, the self-esteem is high), while conditional support appears to influence the stability of self-esteem (if the child is loved, the more he will be educated, the more stable the self-esteem will be).

It has been also demonstrated that creative people have a high self-esteem, the belief that he/she can impose its own model; self-esteem seems to be a fundamental element of creativity. People who have a high level of esteem are more likely than others to take an active role in social groups to express themselves freely and effectively (Crețu, 2001).

Tinca Cretu in 2009 believes that the more an individual is free from doubts and ambivalences, the better he/she resists threats, escapes minor personality disorder; thus one who has high self-esteem can achieve the goals which he/she set for himself/herself.

Conclusions

Adolescence is the period of all dangers, a risk taking is age. Teenage life is put in danger physically and mentally, after some more or less consciously decided actions. Nowadays, the teenager will often try fate when the tests he/she takes under the gaze of a public or during daily activities. Concerned about the progress of the human being and his ability to continue to improve, Romanian psychologists have brought their contribution to the development of a human model. All works that

have addressed the issue of human knowledge touch more or less the question of identity, self-awareness necessary to identify its place in the world to find optimal solutions to problems inherent in life, closer to the essence of the phenomenon.

In conclusion it is known that adolescence is a time lived intensely tumultuously and is continuously looking for the self across social waste. In search of identity or a place in the world as in the group of belonging, the adolescent undergoes a stage of life imbued with strong emotional and intellectual feelings. Adolescence is the big step in social adaptation when internal and external needs pressures him/her to adopt a life strategy, to reflect more deeply on themselves and the world that sport can surround. In this context, sport represents an alternative to the formation of identity of persons at this age.

References

- ARNAUX, D.J., (1999), *La Depression a l'adolescence*. Paris: Editura In Press, p. 56.
- CREȚU, T., (2001), *Adolescența și contextul său de dezvoltare*. București: Editura Credis, pp. 43-44.
- GERALD R.A., (coord.), & Berzonsky M.D. (coord.). (2009). *Psihologia adolescenței. Manualul Blackwell*. Iași: Pilirom, pp. 124-127.
- MUNTEANU, A., (2004), *Psihologia vârstelor adulte și ale senectuții*. Timișoara: Editura Eurobit, pp. 56-58.
- POPESCU-BRUMA, S., (2003). *Dezvoltări dizarmonice de personalitate în copilărie și adolescență*. Pitești: Editura Paralela 45, pp.67-73
- RADU, N., (1995), *Adolescența. Schiță de psihologie istorică*. București: Editura Fundației România de Mâine, pp. 145-148.
- SCHIOPU, U., & VERZA, E., (1989), *Adolescența, personalitate, limbaj*. București: Editura Albatros, pp. 124-132.
- ȘCHIOPU, U., (1997), *Criza de originalitate în adolescență*. București: Editura Didactică și Pedagogică.

FITNESS IMPORTANT MEANS OF SOCIALIZATION ADULTS

Fitnessul mijloc important în procesul socializării persoanelor adulte

BORIS RISNEAC¹, AURELIAN GHEORGHIU², EVELINA RISNEAC³

¹*State University of Physical Education and Sport, Chisinau, R. Moldova*

²*University "Dunărea de Jos", Galati, Romania*

³*State University of Physical Education and Sport, Chisinau, R. Moldova*

*e-mail: borisrisneac@yahoo.com

Summary

Scientific research methodology focused on implementing means of fitness in the process of socialization of adult women. The results obtained showed a substantial change in individual and group sociometric parameters.

Keywords: means of fitness, socialization, group sociometric indices - density, cohesion, stability, strength, sociometric indices individual, authority, exhilaration, satisfaction, fresh, feminine person.

The actuality of subjects:

In literature the term "socialization" contained several meanings, depending on the field of study: biology, anthropology or sociology. With strict sense sociological concept is defined as a way to drive individuals in a given society, the process of assimilating the norms, knowledge, values and beliefs, a phenomenon that will make them members of a given society. Socialization, in modern system is differentiated changing and allow to study the mobility of individuals, it is seen as a process whose duration coincides with life.

That understanding of the socialization as a process long continued, taking place throughout the entire life of the person and in which we can distinguish several stages, relatively distinct between them.

Every step is conditional on criteria of age, social status, specific systems of norms and values. Through socialization, the individual is ready to operate at every level of social life sectors: humanities, technical, health, artistic, sporting, managerial or executive, institutional or unconventional, state or private.

Socialization is a classic theme in sociology of sport and in sport socialization permanent actuality has a very large area coverage, which requires a number of nuances of terminology such as socialization through sport, in sport, in sport context.

Thus socialization through sport is a form of sportsmanship table maintenance, lousier having a character restoration and recovery of the body. At the same time socialization in sport is general norm, values, skills, common patterns by individuals and groups of people having to obtain athletic performance. Referring to the socialization in the context of sports is noted that people participate as mere spectators or supporters, an occasion to communicate, develop relationships and socialize. The given above shows that sport can be purpose, means and context of the realization process of socialization. This phenomenon has a strong sporting identity dimension: can form individual and group identities.

By those findings, especially sport and physical exercise can effectively contribute to the formation of feelings, states, attitudes, intentions, practice meaningful and personal satisfaction. Starting from the affirmation presented was done trying to highlight scientific studies conducted on the modalities of implementation of exercise in the process of socialization of adults.

In this sense it is noted that there are various recommendations more general and less are recorded and less are highlighted implementation methodologies of modern means of physical

education such as various forms of fitness (aerobics, zumba, pilates, aquagym, fitball and others). Accordingly, fitness is a motric activity that individual achieving a state of well regardless of his condition anatomical, physiological or psychological. Aerobic exercises have an important role in defining the body and providing a feeling of comfort to the body.

Given the above we intend to develop an implementation methodology means of fitness in the process of socialization of adults aged between 35-45 years (women).

To achieve the proposed or set some important goals:

1. Development of the methodology of using the means of fitness among adults aged 35-45 years.
2. Establishment of fitness influence on socialization means people aged 35-45 years.

As research methods were applied theoretical analysis of scientific literature from different fields (physical education, pedagogy, medicine, sociology, etc.), a sociological survey, sociometric methods, functional testing and driving, statistical and mathematical method.

Study direction social manifestations of interpersonal relations and relations between components of certain communities where our research group subjected to psycho-pedagogical experiment were conducted using the method of survey sociometric which was based on technical questionnaire by sociometric test. So the study group to which we refer was made in order to know some aspects sociometric like the links, or those that develop between group members, thus realizing communication and thereby socialization a way to interact with other people but anyway but by means of fitness, namely the psycho-pedagogical model proposed.

Based on elections and rejections, made by the group of subject's centralized traction or calculated indicators sociometric group and individual statistics. Data processing input generated socialgrama obtained at the initial and final tests on individual and group investigation and report of the tests, which led to a better interpretation of the data statistically. Those results are shown in Table 1.

Table 1. *Centralizer indices of initial and final test group*

Name of indices Group	Initial Test		Final Test	
	Attractions	Rejections	Attractions	Rejections
Density	0,142	0,0158	0,324	0,0132
Cohesion	0,0421	0,0421	0,221	0,221
Stability	2,72	0,278	5,61	0,222
Intensity	0,242	0,0316	0,426	0,0263

Analyzing centralizer of indices group between initial testing and final, there is higher rate indices stability, intensity and density area attractions, as well as a regression sensible but obvious in the rejections, which shows that the effect of socialization there program after applying the model to the socialization of women aged two. Cohesion factor that signals the presence of mutual election of the members of the group included in ascertaining experiment was increased by nearly 5.25 times for attractions which give an even stronger link between the group members.

In the present research, statistical analysis revealed significant influence on the process of socialization fitness for adults. Thus this work was performed by standardized tests; subjects were initially tested using the software-final pro-sociometric computer program used for the sociometric. It was useful for creating groups of people, group integration, the crisis is prevention, etc.

Followed by or that program:

- defining an inner structure and dynamics of relationships where changes in one group;
- cohesion was measured different groups of people to implement any project during planned;
- optimization of control on a group;
- optimization of psychological climate in a group;
- diagnosing internal relations within a group is changing depending on external factors.

In this program given indices were calculated following individual: authority, emotional exuberance, satisfaction, status.

Data included in the statistical analysis performed include traction with indicators calculated for positive and negative choices.

The analysis on positive choices consisted of an upward trend, such authority increase from 0.118 to 0.323 units emotional exuberance increase from 0.142 to 0.323, from 0.150 to 0.323 satisfactions, status from .157 to .336.

Regarding the evolution of sociometric indicators on refusals analysis negative choices among the partners could have a particular relevance, as the calculation parameters “authority” and “emotional exuberance”. The other two, “satisfaction” and “state” are no longer relevant for the following reasons: satisfaction level is at zero and the initial and final test; there are negative mutual elections; index “state” in its formula contains positive and negative choices of topic received and analyzed in the elections “positive”. Last index represents a certain percentage of interest or reaction that awakens an individual in the group. It should be noted that the number of elections “positive” outweighed the negative ones in this index and it can be said that no negative influences elections.

A special interest in achieving the planned research was marked by establishing links between all parameters correlative initial and final test to highlight that they were more influenced. Regarding developments in functional parameters namely: indices of body weight, heart rate, index Ruffier and exercise intensity is determined a significant improvement at the same time a link correlative close where coefficient correlation between these parameters vary from 0.681 up to 0.884 .

To reflect the relationship between sociometric parameters namely group indices: density, cohesion, stability, current and established close links correlative attractions in the $r = 0.805$ to 0.780 and in the process rejections ties in many cases are insignificant.

Correlative analysis performed indices sociometric individual authority, exuberant affection, satisfaction, state election positive and negative demonstrated a coefficient $r = 0.401$ to 0.750 in the elections positive, but in the elections negative coefficient of correlative show correlation statistically insignificant which allows it say that they do not influence the increase sociability.

Thus the indices show that individual fitness program increased social influence within the group considered positive in terms of elections.

Conclusions:

1. The scientific study conducted showed a clear need in the implementation of systematic means of Fitness by persons age 35-45 years feminine.

2. The methodology of using the means of Fitness significantly affects the process of socialization to adult's feminine, showing clear improvements in indices and individual sociometric group.

References

- EPSTEIN, Y., KEREN, G., UDASSIN, R., (2002), *Way of life as a determinant of physical fitness*. Eur. J. Appl. Physiol. And Occup. Physiol. V.47. — № 1.-P.1-5.
- GAVRON, S., (1993), *H2O plus 60 = water exercise for senior adults*. Journal-of-the-rnternational-Council-for-Health,-Physical-Education-and-Recreation (Reston,-Va); 29(4), Summer, P. 12-16.
- LISITSKAYA, T.S., KUVSHINNIKOVA, A.V., (2003), *The system of training of specialists for aerobics*. Theory and Practice of Physical Culture, № 12. - S. 34-38.
- LUBYSHEVA, L.I., (2001), *Sociology of physical culture and sports: the manual*. M.: Academy, 240 p.

CONTENTS

PHYSICAL EDUCATION SECTION

<i>Daniela Aducovschi</i> COORDINATION FACTORS THAT INFLUENCE THE LEARNING OF JIVE STEPS BY STUDENTS.....	7
<i>Ines Chicos</i> THE CORRELATION BETWEEN SELF-ESTEEM AND ACADEMIC MOTIVATION OF STUDENTS IN THE CONTEXT OF MODERN SOCIETY.....	13
<i>Remus Dumitrescu</i> A STUDY OF THE PERSONALITY TYPE AND ITS RELATIONSHIP WITH THE PHYSICAL EDUCATION AMONG THE STUDENTS FROM UNIVERSITY OF BUCHAREST	17
<i>Remus Dumitrescu (coord.), Alina-Mihaela Stoica, Daniela Aducovschi, Mihaela Ganciu, Robert Sakizlian, Moise Dan-George, Bogdan Gozu, Monica Sakizlian, Costinel Mihaiu, Marius Leștaru, Ghiocel Bota, Florin Lițoi, Monica Gulap, Cătălin Șerban, Oana Ganciu</i> STUDY CONCERNING THE STUDENTS' OPTIONS ACCORDING TO THE EDUCATIONAL OFFER OF THE PHYSICAL EDUCATION AND SPORT DEPARTMENT FROM UNIVERSITY OF BUCHAREST	23
<i>Mhaela Ganciu</i> STRATEGIES USED TO IMPROVE THE EFFORT CAPACITY THROUGH FOLK DANCES, IN HIGHER EDUCATION.....	31
<i>Monica Gulap</i> STUDY REGARDING THE OPINIONS AND THE PERCEPTION OF THE STUDENTS FROM THE UNIVERSITY OF BUCHAREST ABOUT THEIR QUALITY OF LIFE.....	35
<i>Marius Leștaru</i> PREVENTION AND CORRECTION OF THE MISTAKES IN THE KARATE TECHNIQUES WITHIN THE PHYSICAL EDUCATION CLASSES AT THE UNIVERSITY OF BUCHAREST	43
<i>Mihai Cristian Negoescu</i> SELF-DEFENSE MODULES FOR STUDENTS	47
<i>Monica Cristina Sakizlian</i> THE EFFECTS OF AEROBICS PRACTICE ON THE OVERALL PHYSICAL TRAINING LEVEL OF THE UNIVERSITY OF BUCHAREST FEMALE STUDENTS.....	53
<i>Robert Sakizlian</i> EVALUATION OF THE TECHNICAL PARAMETERS OF THE BASKETBALL PLAYERS FROM THE UNIVERSITY OF BUCHAREST	57
<i>Adriana Stoicoviciu</i> ANALYSIS OF THE GAME PLAN PARAMETERS FOR THE WOMEN'S BASKETBALL REPRESENTATIVE TEAM OF THE UNIVERSITY OF BUCHAREST AND THE ESTABLISHMENT OF SMART OBJECTIVES IN ORDER TO IMPROVE PERFORMANCES .	63
<i>Eren Uluöz, Cem Yoksuler Yılmaz, İrem Kavasoğlu, Ana Maria Günsel, Zeynep Filiz Dinç</i> A STUDY ON THE SPORTS TRAINING AND INSTRUCTION IN TURKEY: AN OVERVIEW OF HIGHER PROGRAMS IN THE AREA OF SPORTS.....	69

SPORT SECTION

<i>Dan George Moise, Cristiana Neagoe</i> BASIC CONCEPTS ABOUT THE BIOMECHANICAL PRINCIPLES ON TECHNICAL AND TACTICAL PERFORMANCE TENNIS.....	77
<i>Cristina Elena Moraru</i> LEARNING METHODS FOR ACQUIRING RHYTHMIC GYMNASTICS COMPETENCES.....	81
<i>Natalia Reaboi</i> COGNITIVE FORMATION SKILLS TRAINING IN RHYTHMIC GYMNASTICS AT THE INCIPIENT STAGE OF SPORTS PREPARATION FOR CHILDREN 5-6 YEARS.....	87
<i>Elena Sabău, Georgeta Niculescu</i> ATHLETES' NUTRITION.....	91
<i>Alina-Mihaela Stoica</i> STUDY REGARDING THE DYNAMICS OF THE ROMANIAN SWIMMING RESULTS REGISTERED AT THE OLYMPIC GAMES IN THE WOMEN'S 200M BACKSTROKE SAMPLE.....	95
<i>Marius Stoica</i> CONSIDERATION REGARDING THE ORIENTATION OF SELECTION AND PHYSICAL TRAINING IN YOUTH FOOTBALL.....	99
<i>Cătălin Șerban, Bogdan Gozu</i> THE EVOLUTION OF COMPETITIVE PERFORMANCES FOR "10 m AIR RIFLE, MEN", DURING 2009-2012 OLYMPIC CYCLE.....	103
<i>Vlad Al. Toma, Eduard Bucălie, Paul Ciolpan, Andreas Banu, Ioana Roman, Emilia F. Grosu, Alina S. Rusu</i> AN INTERDISCIPLINARY MODEL FOR THE STUDY OF THE COMPETITION STRESS IN ALPINE SKIING: EMOTIONS, PERCEIVED STRESS AND SALIVARY STRESS HORMONES	107

KINETOTHERAPY SECTION

<i>Oana Maria Ganciu</i> MEDICAL GYMNASTICS AND THERAPEUTIC SWIMMING, WAYS TO IMPROVE THE QUALITY OF LIFE.....	115
<i>Daniela Pirvulescu Popa, Mircea Neamțu</i> OPTIMUM RECOVERY FROM CERTAIN TRAUMAS THROUGH AQUAGYM.....	119
<i>Mircea Slăvilă</i> PROPHYLACTIC STRATEGIES FOR OVERWEIGHT PATIENTS.....	123
<i>Mircea Slăvilă, Alexandra Slăvilă</i> STUDY ON PARTICULAR RECOVERY METHODS FOR OSTEOARTHRITIS, SPECIFIC TO THIRD AGE PEOPLE.....	127

VARIA SECTION

<i>Andrei Ioana</i> CULTURAL AND EDUCATIONAL FUNCTION OF FOLK DANCE. CIULEANDRA DANCE – TREASURE OF FOLK VALUES.....	137
<i>Ghiocel Bota</i> MARTIAL ARTS, THE FOUNDATION OF OPTIMISATION AND PERSONAL PROTECTION (SELF-DEFENCE).....	143

<i>Cătălin Cernat</i> ME AND THE SPORT	147
<i>Maria Drăghici</i> IMPROVING LIFESTYLE OF INSTITUTIONALIZED CHILDREN BY PLAYING MOTION GAMES.....	149
<i>Ramkrishna Makani, Tapan Parikh, Inua Momodu, Ines Chicos</i> PSYCHIATRIC CO-MORBIDITIES AND CYCLIC VOMITING SYNDROME (CVS) – CASE STUDIES AND UPDATED LITERATURE REVIEW.....	153
<i>Oana Cristina Petrescu</i> IDENTITY COMPONENT ASSESSMENT STUDY ON ADOLESCENTS.....	159
<i>Oana Cristina Petrescu</i> SELF – ESTEEM – VECTOR OF ADOLESCENT PERSONALITY	165
<i>Boris Râşneac, Aurelian Gheorghiu, Evelina Râşneac</i> FITNESS – IMPORTANT MEANS OF SOCIALIZATION ADULTS	169

Tiparul s-a efectuat sub c-da nr. 3887 / 2016
la Tipografia Editurii Universității din București
B-dul Iuliu Maniu, 1-3, Complex Leu
Tel.: 021.315 25 10 / 0788 249 545, E-mail: tipografia_unibuc@yahoo.com
