

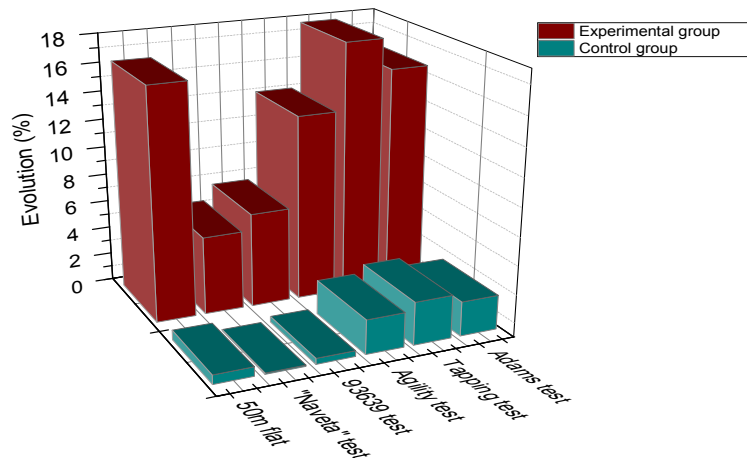
**Figure 1.** Graphical representation for the tests performed both, for experimental and control groups

Above graphics show that on the 6 tests the results obtained by the experimental group were higher than the results obtained by the control group.

Children from the experimental group showed an improvement of speed development motor skill.

**Table 3.** Evolution of the obtained results representation of subjects for the 6 tests

Group/Tests	50m flat(s)	„Naveta” test 4x10m (s)	93639 test (s)	Agility test 20m (s)	Tapping test (rep.)	Adams test (rep)
Experimental group	16,36%	5,55%	6,71%	13,16%	17,83%	15,65%
Control group	0,67%	0,09%	0,42%	2,45%	3,05%	2,46%



**Figure 2.** Graphical representation of average evolution for experimental and control groups on the 6 tests

Table 3 shows the subjects evolution on the speed development where we can observe that those who took part of the experimental group had a much higher level than those from the control group. The difference between the two groups was 11.02%. The subjects of the experimental group achieved an average of 12.54% improvement for the 6 samples and the control group fared just 1.52%.

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**PHYSICAL METHODS APPLIED IN THE REHABILITATION OF ISCHEMIC HEART DISEASE**

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**Abstract**

*This study highlights the importance of physical exercise and physiotherapy recovery methods in the rehabilitation of patients with ischemic heart disease. Physic and physical therapeutics methods are the most important and efficient methods used in normalizing cardiovascular and metabolic parameters for such category of people. Nowadays, more and more people are diagnosed with cardiovascular disease which has major effect over the entire society.*

**Keywords:** *ischemic cardiopathy, atherosclerosis, risk factors, physiotherapy, rehabilitation*

**INTRODUCTION**

Cardiovascular disease is a major public health problem in most countries and is one of the leading causes of disability, morbidity and mortality.

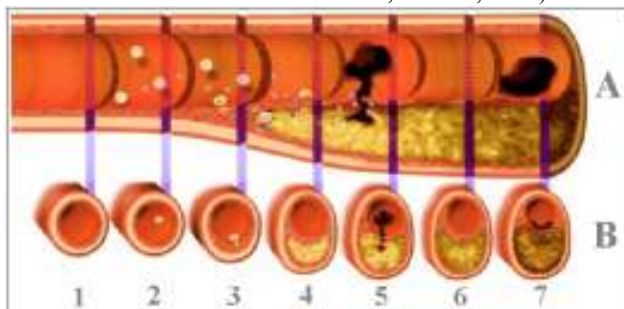
According to the World Health Organization (WHO) ischemic cardiopathy is responsible for 48% of deaths worldwide, which means that about 17 million people die annually because of this disease. Every two seconds a death occurs as a result of this condition, every five seconds occurs a heart attack, and every 6 seconds occurs a stroke.

Regarding our country, this medical condition makes many more victims in each year. According to WHO, in Romania 61% of all deaths are caused by ischemic cardiopathy, compared with 37% in the EU and 53% in countries that recently joined the EU.

Every 10 minutes, a Romanian dies from heart disease. Romania is placed third in the worldwide in terms of number of deaths from cardiovascular disease, one of three Romanian die because of it. These involve disorders of the heart muscle, heart blood vessels and arterial and venous system (WHO).

Ischemic cardiomyopathy affects the arteries that feed the heart - the coronary arteries - which reduces their size, resulting in the decrease of blood supplying the heart muscle - the myocardium - released thus unable to meet demand for oxygen, fatty acids, glucose.

The phenomenon of reducing blood flow through the coronary arteries was appointed in medical term as ischemia. Cardiac changes caused by ischemia are designated by the term cardiomyopathy (Mark V., M. Dan, 2006).

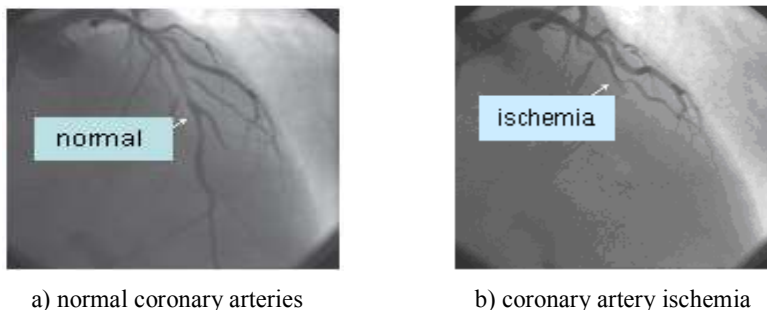


**Figure 1.** A. Longitudinal section through an artery showing the time evolution of a normal artery (1), the plaque that causes clinical manifestations by thrombosis and stenosis (5, 6, 7); B. Artery cross section by highlighting the time evolution of atherosclerosis

Main risk factors involve poor nutrition, physical inactivity, smoking, obesity, stress, and heredity (Juravle I., 2009). The most frequent cause of ischemic cardiopathy is atherosclerosis leading to significant coronary lumen narrowing (G. spyglass, 2006). Dr. Oprian and his collaborators have shown that 90-95% of cases of ischemic cardiomyopathy

were the main cause of atherosclerosis (Oprian O. et al., 2005).

Thus we can say that in modern society, lack of exercise, overuse the nervous system, toxic substance abuse (nicotine, caffeine, alcohol) are risk factors for human health.



**Figure 2.** Coronary angiography

The purpose of this study is to demonstrate the importance of physical exercise and physiotherapy recovery methods in relieving symptoms in patients suffering from ischemic cardiopathy.

Considering the data collected in the initial and final testing, this study mainly aims to highlight the progress of the subjects included in the experiment. As research hypotheses we intend to demonstrate the importance of physical recovery methods and physiotherapy for rehabilitation and socio-cultural reintegration of patients with ischemic cardiopathy. Also, we intend to find out if tolerated treatment regimen for patients improves their clinical symptoms.

In this study we included a total of 10 subjects with similar collateral symptoms and diseases. Average age of the subjects is 53 years, 7 were male and 3 female.

Functional recovery work took place in the treatment resort of Vatra Dornei and lasted three months, from early August to late October 2012.

#### MATERIALS AND METHODS

The methods included in this study are: scientific studies performed until today, teaching observation, testing and graphical methods.

In the recovery program we have included and specific methods of physical therapy (passive and active mobilization, active to resistance, ergometer bicycle working, relaxation techniques, and

massage) and physiotherapy (carbonated baths, mofettes, galvanic current, and magnetodiaflux).

Rehabilitation program was conducted 4 times a week, aiming each time completing of it in normal conditions, with close monitoring of blood pressure and pulse. This was accomplished in three main stages.

Phase 1 was conducted in the morning and consists of physiotherapy: carbonated baths, galvanic currents, magnetodiaflux and mofettes. These procedures were applied with 30-minute break between them.

Stage 2 and Stage 3 were performed in the afternoon and were made in a program of physical therapy and neuro relaxation techniques. Physiotherapy program included the mobilization of passive and active mobilization and active resistance of the main muscle groups, exercises, walking, cycling the ergometer bicycle, and breathing exercises.

Neuro relaxation techniques included: deep breathing, progressive muscle relaxation and autogenic training.

#### RESULTS AND DISCUSSION

Subjects selected for this study have increased exercise capacity, improved cardiovascular parameters and health by applying physic and physical therapeutics methods.

**Table 1.** Presentation of the hemodynamic and metabolic parameters values for initial testing

Name	Sex		BP – blood pressure (mmHg)	HR – heart rate nr/min	Cholesterol LDL- mg/dl	Glycaemia mg/dl	Triglycerides mg/dl
Surname							
C.V.	M	at rest	150/100	92	253	100	200
		after effort	170/110	130			
J.L.G.	F	at rest	160/100	87	230	78	167
		after effort	178/115	128			
J.V.	M	at rest	160/95	91	220	95	180
		after effort	175/110	137			
D.S.	M	at rest	165/98	79	242	100	195
		after effort	180/105	126			
G.D.	M	at rest	156/70	93	217	103	300

P.V.	M	after effort	172/82	135	229	92	274
		at rest	150/74	82			
D.M.	F	after effort	168/86	115	201	89	387
		at rest	164/79	76			
P.A.	M	after effort	170/84	140	196	120	298
		at rest	159/72	85			
L.F.	F	after effort	160/100	129	189	83	306
		at rest	148/80	87			
G.P.	M	after effort	170/84	118	207	97	392
		at rest	150/60	62			

Table 2. Presentation of the hemodynamic and metabolic parameters values for final testing

Name Surname	Sex		BP – blood pressure (mmHg)	HR – heart rate nr/min	Cholesterol LDL- mg/dl	Glycaemia mg/dl	Triglyceride s mg/dl
C.V.	M	at rest	126/66	74	194	95	182
		after effort	140/78	110			
J.L.G.	F	at rest	122/70	71	186	72	154
		after effort	138/80	115			
J.V.	M	at rest	132/74	82	198	86	169
		after effort	144/90	121			
D.S.	M	at rest	136/68	70	200	90	173
		after effort	160/72	120			
G.D.	M	at rest	124/66	84	187	89	240
		after effort	148/73	119			
P.V.	M	at rest	118/74	72	193	82	221
		after effort	138/68	100			
D.M.	F	at rest	134/54	68	182	75	205
		after effort	158/72	110			
P.A.	M	at rest	136/66	75	160	99	224
		after effort	154/78	126			
L.F.	F	at rest	110/68	78	169	68	252
		after effort	148/76	117			
G.P.	M	at rest	134/72	50	180	81	260
		after effort	158/78	108			

Graphical representation of cardiovascular parameters, blood pressure (Figure 3) of subjects shows the progress in terms of cardiovascular adaptation to the physical effort. Representation is

made from the initial and final testing. Final testing has decreased in value, which means that the normal blood pressure was restored before exercise and after exercise.

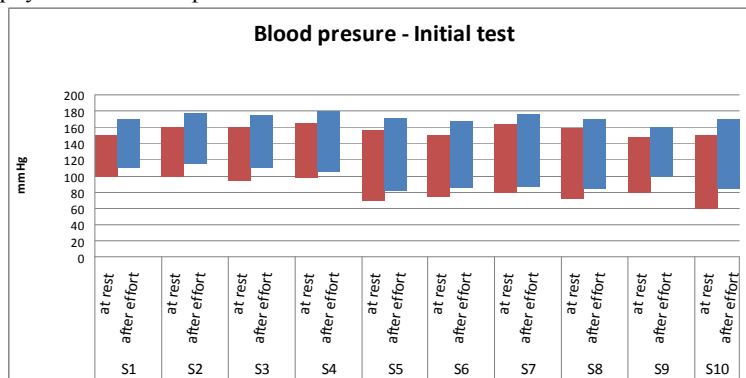
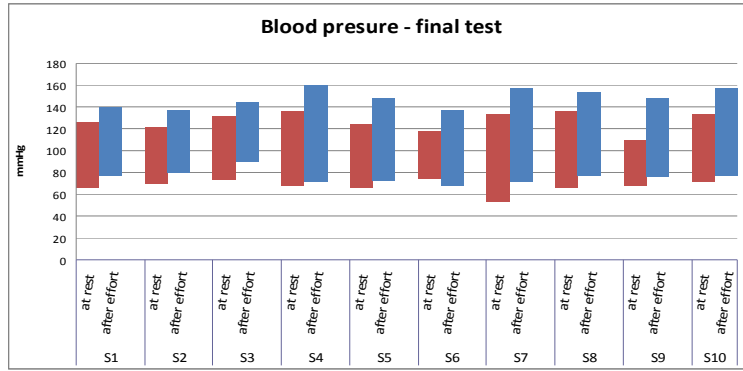


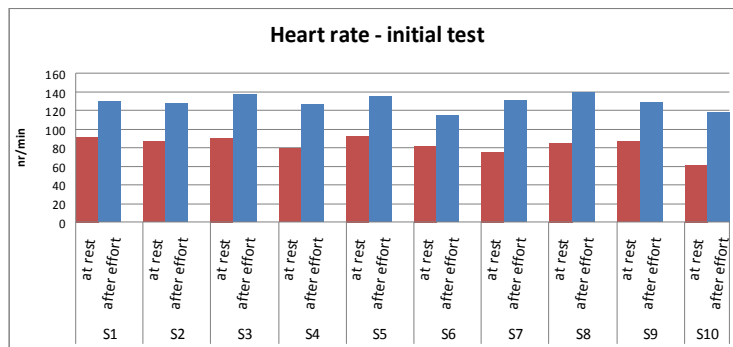
Figure 3. Graphic representation of blood pressure on the initial test



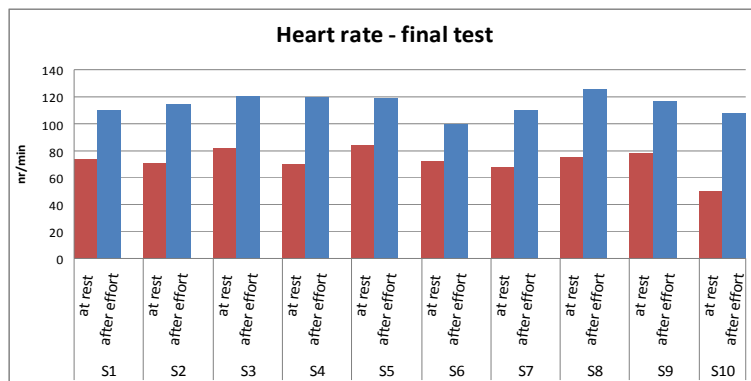
**Figure 4.** Graphic representation of blood pressure on the final test

The graphical representation of heart rate values shows that after final testing the heart blood circulation has improved (Figure 4). It pumps blood

more economical, influencing the overall condition of the body.



**Figure 5.** Graphical representation of heart rate on the initial test



**Figure 6.** Graphical representation of heart rate on the final test

Graphical representation of metabolic values (glycaemia, cholesterol and triglycerides) shows that, after the rehabilitation program their value

decreased, thus influencing positively the overall condition of the subjects.

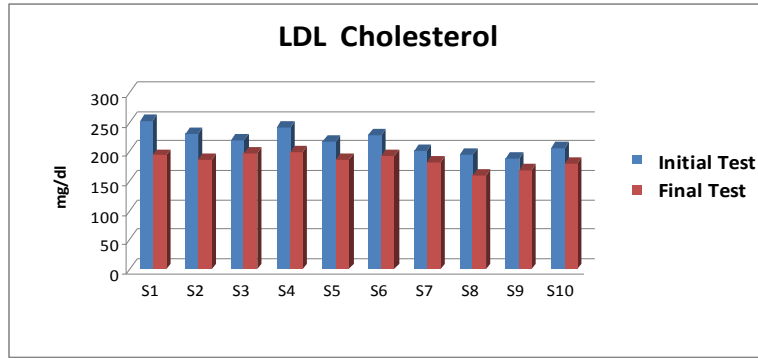


Figure 7. Graphic representation of metabolic values: cholesterol

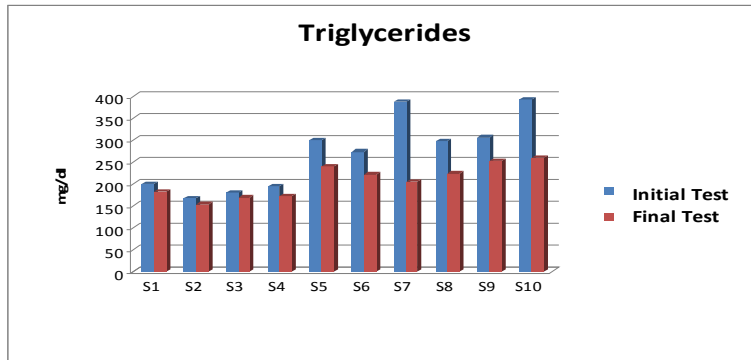


Figure 8. Graphic representation of metabolic values: triglycerides

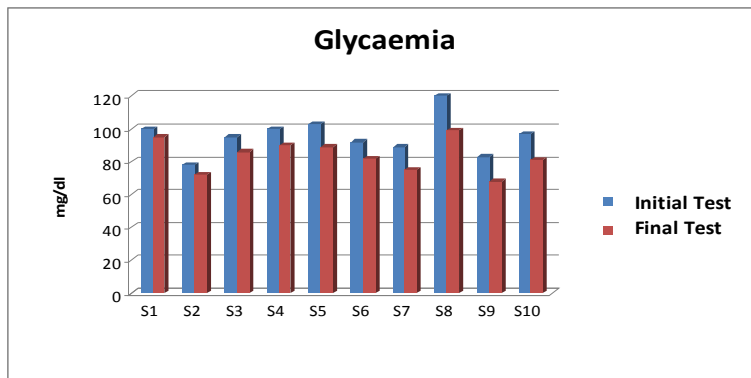


Figure 9. Graphic representation of metabolic values: glycaemia

## CONCLUSION

Following the studies performed, it was found that the methods used in the rehabilitation program for patients with chronic ischemic cardiopathy have a favourable impact on cardiovascular and metabolic parameters. Thus, the blood pressure before exercise of patients improved by approximately 18% and after exercise by 13% for the final testing. Also, the heart rate before exercise improved on average by approximately 13% and approximately 11% after exercise.

Values of the metabolic parameters decreased, which means their normalization by about 15% in

terms of cholesterol, about 13% in terms of glycaemia and triglycerides by about 23%.

The proposed method has succeeded in restoring normal value of blood pressure and heart rate, and also for glucose, cholesterol and triglycerides.

Patients with ischemic cardiopathy had first interest to cooperate with the therapist. They have improved psycho-emotional tonus.

Rehabilitation specialists in cardiovascular patients, from experiments made recommendations for patients:

To try and other methods of cardiovascular rehabilitation: mud baths, reflexology, aerosols, spa treatment etc.

To maintain normal weight or be concerned to normalize it, because excess weight affects the entire body, including the cardiovascular system.

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## DESIGNING ORGANIZATIONAL EFFECTIVENESS MODEL OF SELECTED IRAQ'S SPORTING FEDERATIONS BASED ON COMPETING VALUES FRAMEWORK

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#### Abstract

*The aim of the present study was designing model of organizational effectiveness of selected Iraq's sport federations based on competing values framework. Statistical society of present study included 221 subjects ranging from chairmen, expert staffs, national adolescent athletes, and national referees. 180 subjects (81.4 percent) answered standard questionnaire of Eydi et al (2011) with five Likert values scale. Content and face validity of this tool was confirmed by 12 academic professors and its reliability was validated by Cronbach's alpha ( $r=0.97$ ). LISREL software version 8.50 was used for path analyzing and modeling, and confirmatory factor analysis was used to confirm the model and relationships between factors. Results of Structural Equation Model (SEM) based on path analysis method showed that factors of expert human resources (0.88), organizational interaction (0.88), productivity (0.87), employees' cohesion (0.84), planning (0.84), organizational stability (0.81), flexibility (0.78), and organizational resources (0.74) had the most effects on organizational effectiveness. On the other hand, findings of factor analysis showed that patterns of internal procedures (interaction and organizational stability) and rational goals (planning and productivity) were main patterns of competing values framework and determinants of organizational effectiveness of Iraq's selected sport federations. Moreover, federations of football, track and field, weightlifting, and basketball had the highest mean of organizational effectiveness, respectively. Hence, Iraq sport federations mainly focused on organizational control, and internal attention as index of OE.*

**Keywords:** *Organizational effectiveness, Organizational control, internal attention, internal processes, rational goals model, sporting federations*

#### INTRODUCTION

Organizational effectiveness is one of research topics in organizations for more than several decades and all of them are trying to reach structural effectiveness and change their procedures (chelladuray & Madella, 2006). However, experimental studies have not yet achieved a general theory regarding organizational effectiveness, even though the construct of effectiveness is widely studied in organizational literature and among researchers it is considered as main subject in organizational analysis (Goodmann & Pennings, 1980). Construct of effectiveness is a

challenging issue among profit and non-profit organizations and there is no general description due to lack of agreement regarding organizational effectiveness (Cameron, 1981).

Different viewpoints exist considering concept of organizational effectiveness. One of these viewpoints regards effectiveness as a scale or extent by which an organization achieves its goals. The other one views organizational effectiveness as a measure of achieving short and long term goals considering expectations of beneficiaries, appraisers, and organizational living stage (Robbins, 1998). In past decades, each of these