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SPORT, SCIENCE, AND COMPLEXITY: A PEDAGOGICAL AND METHODOLOGICAL REFLECTION

EMANUELE ISIDORI¹, FRANCISCO JAVIER LÓPEZ FRÍAS²

ABSTRACT. The main aim of this study is to reflect on sport, science, and complexity by sketching a genuine pedagogical perspective resulting from the analysis of a new epistemological proposal within the philosophy of science and education: the theory of complexity. This pedagogical perspective, which is based on hermeneutics, shows that pedagogy, understood in a theoretical as well as in a practical sense, is a fundamental cornerstone within the scientific field of sport and physical activity. In so doing, this study shows that pedagogical knowledge is relevant in the abovementioned scientific field. It helps sport professionals develop a reflexive and critical attitude towards the practices related to sport and physical activity. In this sense, pedagogy becomes an intrinsic component of sport science, which calls for the need of ethics within this science and for better-prepared professionals able to fight the negative aspects of contemporary sports, such as, alienation and commodification.

Keywords: pedagogy, philosophy, sport, complexity, sport sciences.

Sport Science, Interdisciplinarity and Silos

This study focuses on the epistemology of sport science(s), which is called as “kinesiology” in Anglo-American universities. Following R. Scott Kretchmar, we understand sport science to be: “the study of human movement and physical activity in virtually all its forms and manifestations” (Kretchmar 2008: 4). As Kretchmar notes, several silos have been created inside sport sciences in order to study these phenomena. Each silo has access to a part of reality and employs distinctive research methods to measure and to understand its subject matter. For example, both philosophy of sport and sport pedagogy focus on the ludic aspect of sport in order to understand it as a socially constructed activity that

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plays an important part in giving meaning to human life. However, this humanistic side of sport has been downplayed recently. As many authors, such as Patricia Vertinsky and R. Scott Kretchmar, have pointed out, sport sciences has redirected its attention, from cultural activities that matter to people, to the measurable scientific study of movement during the 21st Century.

Nevertheless, there is a recent and strong tendency that argues for recovering the humanistic side of sport science studies by developing an interdisciplinary study of human movement and physical activity. Kretchmar is one of the main proponents of this approach. He defends that silo walls have to become thinner and more permeable. Thus, the humanities have an important role to play in sport sciences and physical education departments. Sports are not practiced just for health reasons. Rather, they are also ludic activities. Science-based sport sciences tend to overemphasize the former while overlooking the latter. However, the ludic aspect has much to contribute. It cannot be downplayed since it also plays a major role in human life, not the least of which is to motivate us to engage in sport for the long run. As Johan Huizinga showed, we are *homines ludentes* (*homo ludens* is the title of Huizinga's book, published in 1950). Play is at the ground of basic human activities and institutions such as religion, law, and the state—as the Spanish philosopher Ortega y Gasset argued (2004, 705-719). In other words, human movement and physical exercise play a major role in *human flourishing*.

Researchers in sport sciences have to go beyond the mere biological, medical or biomechanical focus on sport and physical activities and, following Kretchmar, help these sciences to turn into a holistic discipline which helps us live a *healthy* and *meaningful* life (Kretchmar, 2008, 5), whose values are always promoted by education and both its regional and world wide systems. We have to mend the gap between sciences and humanities by adopting a cross-disciplinary attitude by promoting what Vertinsky calls “intellectual bilingualism” (2009: 47). This means that researchers in one discipline have to make the effort to, at least, understand what is being done in research areas related to their background. Researchers need to have familiarity with both qualitative and quantitative studies and research methods.

The philosophy of complexity that we will analyse in this study is integrative in this sense because it argues for an interdisciplinary way of doing science. In following this methodology, the members of the diverse areas (or silos, in Kretchmar's terms) within sport sciences will help each other in order to provide us with a more comprehensive understanding of physical activities and human movement so we can think of better ways of doing and promoting these activities.

The Philosophy of Complexity: An Overview

The main goal of the theory of complexity is to ground a new science on the basis of integration. Following Edgar Morin, “*complexus*” is “what is interwoven” (1994). This new way of thinking emphasizes the fact that our objects of study cannot be taken in isolation as closed systems. Rather, they have to be seen *as radically interwoven* with their environment. For instance, human beings are not isolated; they have to be studied by taking into account their social environment. In line with this idea, Ton Jörg argues that we have to “complexify” our objects of study to perceive the whole picture (2011).

This new science of complexity born out of dissatisfaction with the way “normal” sciences operate in our society. Contemporary (sport) sciences are incapable to dealing with the complexity found in the world since they employ a linear causal thinking. This “old” way of thinking conceives of the world mechanistically by “mapping mechanistic models to reality as the core of science” (Jörg, 2011, 3). The main goal of this linear thinking is to overcome and dissolve the complexity found in reality.

This was the main goal of Descartes and the fathers of modern sciences, which tried to reduce complexity to a much simpler order composed by mechanical (causal) relationships. However, this simplifying task turned out to be negative for both (sports) sciences and society. Modern sciences were too controlling and dominative. For the task of simplifying complexity to be accomplished easier, several specialized research fields were created. For instance, as Herbert Haag shows, the study of sport was divided into seven fields: sport medicine, sport biomechanics, sport psychology, sport pedagogy, sport sociology, sport history, and sport philosophy (Haag, 1993). However, this overspecialization arbitrarily destroyed both the unity and the complexity of (sport’s) reality and turned sciences blind to them.

Modern sciences created the *paradigm of simplicity*. “Created” is the right word since simplicity is a human construction. It does not exist, there are only *simplified* objects. What we perceive when we analyse and think of our world is complexity. For example, famous novelists in the nineteenth century, such as Charles Dickens and Feodor Dostoyevsky, masterly captured and described complexity. They showed that individuals play several social roles that are almost uncountable. Thus, the unity of the solipsistic individual upon which modern social and human sciences were built was blurred by emphasizing individuals’ several identities and roles. In contrast to this, nineteenth century sciences’ main goal was to reduce reality to a single set of mechanical relationships. For instance, Laplace regarded the universe as a perfectly deterministic mechanism (Morin 1994, 88).

The philosophy of complexity is a rebellion against determinism and simplicity. However, in line with Sigmund Loland's critique of mechanical sciences, it does not deny linear causality thinking. Rather, it provides us with a way to introduce complexity into sciences. By following Jörg, we would argue that this new science of complexity is a complementary science. In fact, recent advances in sciences such as microphysics and computational theory show us that complexity should be at the core of our scientific paradigms. This is even more relevant in the realm of social and humanistic sciences whose object of study is not easy to describe in deterministic terms. This is the reason why Edgar Morin claims that this new science is an opportunity to "humanize sciences". In fact, following his proposal, Jörg introduces the notion of "fluid determinism", which is "about the processes of causal influencing in interaction within interactive relationships, showing a fluid interplay of forces as a kind of shaping forces over time" (Jörg, 2011, 145). This new science opens up a new way to view and do science; it helps us deal with the big questions and issues in real world by providing us with new tools and an integrative approach to think the very complexity that has been denied so often.

Science thus conceived is trans-disciplinary since it liberates sciences from the conceptual blindness restricting the horizons of their discourses. The philosophy of complexity is then a rebellion against silos and bunkers, and the old way of thinking. We need to go beyond the separate disciplines by embracing this new science. To do so, we need to create a new language which is not trapped in the terms of the old science that we want to overcome. This new language is Vertinsky's "intellectual bilingualism", which is mainly based on the dialogue between the diverse sciences. This new thinking in complexity attempts to negotiate and establish a dialogue with reality instead of controlling and dominating it. Thus, it provides us with a different way to approach reality. Complexity is not regarded as something to erase, but rather as a challenge. As far as sport is concerned, sportspeople perfectly know that challenges are not to be erased but faced and overcome. In fact, sports are created by setting artificial and unnecessary obstacles for simple tasks such as reaching one point or throwing objects. Facing challenges is at the core of sports, so should be with sports-related sciences.

Sports and Physical Culture as Complex Issues

An essential feature of the studies on sport and physical culture (sport sciences) is their complex nature. As researchers in these areas, we know that this research field still lacks uniformity regarding its theorems, findings, and statements. For example, these disciplines are characterized and identified through many ways and diverse approaches: a) cross-sectional sciences; b) aggregate sciences; c) applied sciences; d) interdisciplinary, multidisciplinary or trans-disciplinary sciences; e) additive sciences.

Moreover, sport sciences and sport studies – this term is used to identify the research field of humanities applied to sport (cf. Coakley, Dunning, 2007) – have a plural nature. These sciences and studies employ many methodologies that can be philosophical, anthropological, hermeneutical, analytic, rationalistic, socio-critical, political-institutional, system-theoretical, subjectively based on single constructs. In line with the complexity found in sport science studies, Haag explores the plural nature of sports sciences by analysing the topics studied by them from four different perspectives: a) established theory fields; b) new theory fields; c) sport orientation themes, and d) general orientation topics.

Given the mentioned plural nature and complexity of sport sciences, the definitions and contents provided by authors within such a discipline are meaningless; they merely reflect inherited cultural-anthropological meanings and philosophical prejudices belonging to their respective research field. For example, as Loland shows, those involved in the mechanic study of sport hold either the “stronger claim” (that states that the theory or methodology of mechanics is the only true knowledge of sports) or the “weaker claim” (that, following Karl Popper’s philosophy of science, defends that analytic mechanics does not necessarily lead to absolutely true knowledge, but it represents the best knowledge available) (Loland 1993, 263-264).

This lack of general uniformity is not unique in contemporary sport sciences. Using Charles Percy Snow terms, (sport) sciences knowledge has been split into “two cultures”: the sciences and the humanities. Snow wrote a book in 1959 titled *The two cultures and the scientific revolution*, whose main thesis was that the breakdown of communication between the *two cultures* of modern science was a major hindrance to solving the world’s problems. Such a lack of communication is still alive in contemporary sciences. Nothing has changed since the publication of Snow’s book. Sport sciences are a perfect illustration of this. In fact, the gap between humanities and sciences is increasing more and more and becoming deeper and deeper due to the following factors:

1) The biologisation, medicalization, and technification of sport sciences’ contents and its problems due to the supremacy of biological and medical sciences and the prevailing of technified didactics and training system for physical education teachers and coaches.

2) The downplaying of the humanities of sport, which implies a relevant lack in the training of sport sciences students (who will be the future professionals of sport and physical activity) and denies the possibility of building a holistic methodology able to explain and understand sports and physical culture through an appropriate and not dichotomical methodology, which means, a methodology that combines qualitative and quantitative elements and focuses on the general meanings of sport and physical culture and their real value and importance to human life.

Both the downplaying of humanities in sport sciences and the prevailing of a biomedical and technical paradigm give rise to the following two theoretical mistakes: reductionism and reductivism. The former tends to reduce the study of sport and physical activity (sport sciences) to one methodological approach (the analytic one) and to one science. Thus, complex things are simplified to causal interactions, so the study of the many diverse aspects of sport as a phenomenon is conceived of as mere subfields of a higher discipline. For instance, sociologists conceive of sport as mere sub-sphere of society. A relevant case of reductivism in sport sciences is exemplified by those theories that explain success in sports by only appealing to genetic factors.

As reductionism and reductivism are employed as theoretical tools to simplify the hypercomplexity of both objects “sport” and “physical activity”, they generate negative consequences in practice; they give rise to simplifying attitudes and *habitus* when approaching sport related problems. These attitudes and theoretical habits tend to simplify sports sciences’ multifaceted nature and to employ just one language to explain (and to solve) its problems. Thus, studies in epistemology of sport sciences are an essential battlefield for contemporary sport sciences. Every researcher or professional in sport sciences should be forced to reflect at least once in his or her career on this debate.

Regrettably from a pedagogical point of view, by living under the paradigm of simplicity, sport sciences professionals are frequently mere technicians or specialists; they have a practical attitude towards problems regarding sport, but they lack a critical and reflexive approach to these very problems. Thus, they are not able to cope with them in a critical way; they are trained to follow certain guidelines or a given mainstream but they do not reflect upon what they do. This mainstream, as Loland shows, is embodied by analytic thinking and mechanic sciences. This is a good thing for the progress of the discipline to a certain extent, but we should find a balance between the progress of lineal-mechanic thinking and critical-hermeneutical thinking. Following Haag, we have to emphasize that the seven diverse fields that compose sport sciences are a part of a continuum at the very end of which pedagogy of sport and philosophy of sport are located.

Pedagogy of Complexity and Sport

If we take a look at the history of physical education from the nineteenth century European national physical education school to this day, we would notice that the develop of sport science has hardly been unitary as well as characterized by inconsistency and fragmentation. Physical education originated many different

epistemological traditions which are nowadays impossible to bring back again to a consistent and logical coherent paradigm, which illustrates that we live within the paradigm of the two cultures sketched by Snow. Accordingly, the model of an interdisciplinary physical education or physical culture seems to be utopic. In fact, the European Union has recently officially fixed the main research areas and the disciplinary sectors of sciences without mentioning the field of sport sciences. This reflects a major trend in Europe, whose university education systems tend to erase the discipline of *sport sciences* as an independent research area (as it is happening in Italy).

Due to the prevailing and strength of this paradigm, which tends to downplay the value and contribution of the humanities in understanding and developing contemporary sport, we have tried to find a turning point for sport pedagogy by drawing on the philosophy of complexity. In so doing, we have argued for the development of a new pedagogy based on the main tenets of such philosophical proposal, which were analysed in the previous sections.

Along with Morin, the reform of our old way of thinking is a key anthropological and historical problem. We need a new way of thinking to reconnect what has been disjointed and compartmentalized by the modern way of doing science; we need a radical thinking, a multidimensional thinking, which implies, according to Morin, “a mental revolution of considerably greater proportions than the Copernican revolution”. One of the main practical consequences of this new thinking will be that the studies in humanities will be placed in the centre of our educative plans. This does not mean that analytic studies will be thought of as negative or useless. Rather, they have to be complemented by other disciplines in a more integrative and multidisciplinary way of doing science.

Sport sciences should regard sport as a “set of things (issues and problems) in context” by investigating it as a complex objects. These sciences should promote an educational research which is inspired by the philosophy of education grounded on the philosophy of complexity (Haggis, 2008). In so doing, they should regard differences, varieties, particularities and features of sport as a scientific object in order to understand what lies beneath it, establish a sense of its generative principles, search for its deep structure, and avoid making the mistake of doing a reductionist/reductivist analysis of it. Such a research model attempts to create knowledge “that can be used in relation to practices in specific contexts.” (Haggis, 2008, 153). However, as we have shown in this paper, the dominant epistemological, and ontological, positions and points of view of sport sciences make this educational approach to sport practices (and the problems they imply) difficult to be carried out.

Sport is always a complex web of interactions which implies problems that must be studied in light of their practical importance to sport professionals, athletes, the people interested in sport, educators, and teachers. What gives meaning to sport and makes it a human practice is its being an educational practice which embodies values that can be promoted by social and educational agencies, and institutions. Sport professionals and all the people who teach, or are engaged in, sport should be helped to critically reflect upon what they do (Isidori, 2008). As Donald Schön shows in his two famous books: *The Reflective Practitioner* and *Educating the Reflective Practitioner*, a professional is not only the individual who is able to make things and use her or his knowledge and skills in a right way. Rather, a professional should also be able to justify the reasons why he or she makes certain decisions instead of others.

This reason-giving task is grounded in the critical reflection on his or her very activity. For Schön, only a balance between theory and practice can help technicians to develop into reflective practitioners, that is to say, into truly creative professionals who use critical thinking and avoid being mere technicians. Unfortunately, Schön's model of reflective practitioner, which is inspired by John Dewey's pragmatism, has been rarely applied in Europe in the field sport sciences. The correct balance between theory and practise is the key problem for the epistemology of our research field.

To conclude this pedagogical reflection, we can employ here the following metaphor. Knowledge is an orchestra and scientists are the musicians. Knowledge regarding sport is very complex because it deals with all human beings' dimensions. Thus, a problem within sport sciences cannot be reduced to one scientific approach or methodology. We are the musicians of sport and we must learn to play better our instruments in order to teach our athletes and students, "future musicians", to better play (and this is not only a metaphor) theirs. We have to teach our students that the "how", the "what", the "why", and the purpose of sport are always unified and never must be considered in isolation because they are always a part of a *continuum*. This is the pedagogical challenge that we have to face and study further by employing new epistemological proposals such as Morin's philosophy of complexity. For us, this is the only way to make sense of this great human practice that we call "sport".

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López Frías: analysis and interpretation of data; manuscript preparation. The two authors are grateful to the funding provided by the Spanish government's grant: *Beca Predoctoral para Formación del Profesorado Universitario* (FPU) (AP2009-4405) and also the support of the University of Valencia Moral Philosophy Department's investigation group "Discourse Ethics, Democratic Politics and Neuroethics" (FFI2010-21639-C02-01).

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CONTRIBUTIONS TO IDENTIFYING THE BEGINNINGS OF PRACTICING TABLE TENNIS IN ORADEA

ȘTEFAN MAROTI¹, ȘERBAN DOBOȘI², PAULA APOSTU²

ABSTRACT. In the beginning table tennis spread year after year due to people recorded by history, but above all due to numerous practitioners who have remained unknown. Owing to Edward Shires, in the early years of the 20th century table tennis reached the Far East being practised in Hong Kong, China, Japan and Korea (4). In the last years of the 19th century the game had spread in Central European countries. The following years saw a period of great development in the Austrian - Hungarian Empire when it also reached towns in Transylvania, Banat and Crisana. The early history of table tennis in our country closely mirrored that of many other sports. Young Romanian, Hungarian, Saxon, Jewish people who were studying in great university cities like Vienna, Budapest, Berlin, Prague and others started practising table tennis and taking part in competitions (Pásztai s. a., 2011). When they came back, in their luggage, together with the university degree they had bats and celluloid balls. There is evidence and oral tradition has it that in the years before the First World War table tennis was introduced in places from Transylvania, Banat and Crisana by young people who had studied abroad, but it was not very popular (Fehér and Hönig, 1937).

Key words: *history of sport, table tennis, Oradea*

REZUMAT. *Contribuții privind cunoașterea începutului practicării tenisului de masă la Oradea.* În anii săi de pionierat, tenisul de masă s-a răspândit, an de an, datorită unor persoane pe care istoria i-a consemnat, dar mai ales cu sprijinul numeroșilor practicanți ai săi rămași anonimi. Datorită lui Edward Shires, încă din primii ani ai secolului XX, tenisul de masă a ajuns în Extremul Orient, fiind practicat în Hong Kong, China, Japonia și Coreea. (4) În ultimii ani ai secolului XIX, această disciplină sportivă a ajuns în țările Europei Centrale. În anii care au urmat, tenisul de masă a cunoscut o perioadă de avânt în Austro-Ungaria. În această perioadă, prin intermediul unor tineri studenți, tenisul de masă a ajuns în localități din Transilvania, Banat și Crișana. Povestea de început a tenisului de

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masă la noi în țară a fost aproape la fel cu a multor alte sporturi. Tineri români, maghiari, sași, evrei din ținuturile românești aflați la studii în marile centre universitare precum Viena, Budapesta, Berlin, Praga și altele au început să practice tenisul de masă și au participat la diferite competiții. (Pásztai s. a., 2011) La întoarcere, în bagajul lor, alături de diplomele universitare, au adus în țară palete și mingi de celoid. Există indicii și s-a transmis prin viu grai, din generație în generație, că în anii de dinaintea Primului Război Mondial, în localități din Transilvania, Banat și Crișana tenisul de masă era cunoscut prin intermediul unor tineri întorși de la studii, fără ca acest sport să aibă un număr prea mare de practicanți. (Fehér și Hönig, 1937)

Cuvinte cheie: istoria sportului, tenis de masă, Oradea

INTRODUCTION

Table tennis comes to Transylvania

Like many other sports table tennis has its origins in the United Kingdom of Great Britain. It was first mentioned in a document in 1884 (3). Its original name was inspired by the fact that when the celluloid ball hit the bat and then the table it produced a specific sound called by Steve Grant ping-pong. Even if it had a lot of fans, table tennis remained for a period of twenty years a simple entertainment game.

In its early years table tennis spread year after year due to people recorded by history, but above all due to numerous practitioners who have remained unknown. Owing to Edward Shires, in the early years of the 20th century table tennis reached the Far East being practised in Hong Kong, China, Japan and Korea (4). In the last years of the 19th century the game had spread in Central European countries. The following years saw a period of great development in the Austrian-Hungarian Empire when it also reached towns in Transylvania, Banat and Crisana.

The beginnings of table tennis in Oradea

The beginnings of table tennis in our country closely mirrored that of many other sports. Young Romanian, Hungarian, Saxon, Jewish people who were studying in great university cities like Vienna, Budapest, Berlin, Prague and others started practising table tennis and taking part in competitions (Pásztai s. a., 2011). When they came back, in their luggage, together with the university degree they

had bats and celluloid balls. There is evidence and oral tradition has it that in the years before the First World War table tennis was introduced in places from Transylvania, Banat and Crisana by young people who had studied abroad, but it was not very popular (Fehér and Hónig, 1937).

At the beginning of the 20th century Oradea was known as a city of sports, so table tennis found fertile land to develop. Oradea was among the first cities in our country where table tennis was played and where local competitions were organised. The best players took part in the Transylvania Championship (Demjén, 1996). During the First World War, like other sports practised in Oradea, table tennis stopped being played.

Expanding practice and organising the first table tennis competitions

In the period following the 1st December 1918 Union, in spite of many hardships, the new authorities made great efforts to reintroduce sports among the leisure activities of the people from Oradea, especially the young people. Among the sports branches loved by the young people of Oradea of those times was table tennis.

The early 1920s represented a period of time in which table tennis was spreading in many countries year after year and, as a result, many national and international competitions were being organised. Oradea table tennis followed suit. Although there were no clubs affiliated to the Romanian Sport Societies Federation, some sport institutions offered initiation and training in table tennis to young people. Among the Oradea sport institutions that played a great role in promoting table tennis in the beginning Maccabi, Clubul Athletic (The Athletic Club) and Stăruința (Persistence) deserve special mention (Török, 1937). Table tennis was also promoted at the initiative of the newspaper Sporhirlap, which published a series of articles with the presentation and rules of the game. (Sporhirlap, January, 7th 1923). On the 11th and 12th of March 1923 in the Metropol Restaurant Club in Oradea the first table tennis competition was organised after the First World War at the initiative of the following gentlemen: Weisz, Wesel, Partos, Ziszovits and Békéssy.

The necessity of local organisation was felt as a result of the fact that more and more young people were attracted to the sport and they took part in competitions. Consequently, in 1926 table tennis clubs were constituted at Clubul Athletic (The Athletic Club) (Nagyvárad, January, 3rd 1931) and Asociația Sportivă Stăruința (Persistence Sport Association) (Török, 1937). They were followed by the clubs constituted at Maccabi, in 1927 (Nagyvárad, March, 2nd 1927) and Înțelegerea (Understanding), in 1928 (Nagyvárad, September, 24th 1928). Following the initiative of Adorján Péter the Subcommission of Ping-Pong was

constituted at the Oradea Regional Committee of the Romanian Sport Societies Federation. The first competition organised by the Ping-Pong Subcommission was the local championship (Sporthirlap, Septembrer, 28th 1926).

After the establishment of this local ruling body Oradea table tennis knew a period of bloom. The number and level of the local championships increased considerably. The most important local competitions were: CAO Cup, (Nagyvárad, March, 29th 1927), Maccabi Cup, (Nagyvárad, June, 8th 1928) Înțelegerea (Understanding) Cup (Nagyvárad, September, 24th 1928). Also the number of table tennis halls grew. Among them the halls at the Metropol Restaurant, (Sporthirlap, March, 19th 1923), Palace Restaurant, (Nagyvárad, April, 28th 1928) Ullmann Palace, (Sporthirlap, October, 15th 1928) Oltea Doamna Girls School, (Nagyvárad, December, 28th 1930), Staruinta (Persistence) Sport Association hall (Nagyvárad, March, 7th 1928).

Among the sport leaders who had an active role in the table tennis clubs and contributed to the organisation of the competitions held in Oradea in that period special mention deserve: Adorján Péter, president of the Oradea Ping-Pong Subcommission, Bátori Dániel, president of the Staruinta (Persistence) Sport Association, Vargha Ferenc, president of the Intelegerea (Understanding) Sport Association, Glükmann Arthur and Goldstein Adolf members of the table tennis club of Maccabi Sport Association. At the same time, Fülöp Ernő, Fogel István, Schlesinger József and Bábi Zeno, members of the Oradea Regional Ping-Pong Subcommission played a great role in developing this sport in our city. (Sporthirlap, October, 22nd 1928)

The following male players deserve to be mentioned for their contribution to implementing and developing table tennis in its first years in Oradea: Beck Gyula, Fogel István, Adorján Péter, Salamon Imre, Goldstein István, Steiner András, Täglicht József and Nussbaum Imre. As for the female players the following had the best results: Papos Irma, Molnár Anna, Liszka Manci and Örömi Pipi.

Table tennis players from Oradea in national and international competitions

The setting up of the Oradea table tennis Subcommission had a positive impact on the activity of the clubs. The late 1920s and early 1930s saw not only a quantitative improvement in Oradea table tennis – increase in the number of practitioners, number of teams and broadening of the sport calendar, but also a qualitative one – better playing level, better competition organisation and better results.

As a result of the development of the clubs and the training of valuable players who obtained good results in local competitions, Oradea tennis playing representatives started to take part in regional competitions beginning with the year 1928 (Sportvilág, October, 22nd 1928). Between 1928 and 1939 Oradea table tennis players dominated the national competitions in which they took part: 28 – 29 January 1928, in Oradea, (Nagyvárad, January, 31st 1928) 24 – 25 March 1928, in Cluj, (Nagyvárad, March, 27th 1928), 15 – 16 November 1929, in Timișoara (Sportvilág, November, 18th 1929), 26 – 27 December 1930, in Oradea (Nagyvárad, December, 28th 1930).

Oradea athletes also won the first editions of table tennis national competitions. Steiner András won the single male competitions in 1929, 1930, 1931 and 1932. The Oradea pair Steiner András – Goldstein István won male doubles in three editions of national finals in 1930, 1932 and 1933. Liszka Mancsi and Steiner András won the mixed doubles in the first edition of the national championship and Papos Irma și Steiner András won the first place in the final of 1932. Papos Irma was the individual female winner of the national championship of 1932 (1).

International participation

Although Romania had limited sport relationships with other countries at the beginning of the 1920s and the international calendar included few events, due to personal contacts of Oradea sports managers with trainers and sport managers from abroad, as well as due to great efforts of table tennis lovers Oradea's best tennis players took part in a series of international friendly competitions organised in the country and in Hungary. Oradea athletes could also take part in official competitions organised by the International Table Tennis Federation. The competitive experience of players such as Goldstein István and Spitz Arthur was improved as a result of their participation in the international contest organised in Timișoara, where they played against athletes from Hungary, among whom the world champion Mednyánszky Mária. (Nagyvárad, March, 25th 1928). Before the world championship from 1929 Steiner Arthur and Goldstein István took part in the international competition held between 22 and 25 November 1929 by Magyar Torna Klub Budapest (Sportvilág, November, 18th 1929)

The most prestigious competitions in which Oradea table tennis players took part at the beginning of this sport in Romania were the 1929 and 1931 editions of the world championships (Antal, 1974). The Romanian team formed of Steiner, Guttmann, Goldstein, Spitz and Täglicht came in the places VII-VIII out of ten participants in the team event in Budapest in 1929. The presence of the Romanian team at the 1931 edition was made possible by Adorján Péter, who

organised and financed it. The team was formed of Steiner from Oradea and Ponta and Guttmann from Arad. They played well finishing on the 8th place before Yugoslavia, Lithuania and Indonesia (Paneth, 2003).

Among the achievements of the Oradea table tennis one can mention the fact that the Romanian team who took part in the Jewish Olympiad from Prague in 1929 was formed of the players from the Oradea Maccabi Sport Association, led by Steiner Endre (Schon s. a., 1981).

Contributions to the coordination of the national activity and personalities who had an impact on the development of table tennis in the country

In the beginning the best table tennis clubs were in Arad, Cluj, Oradea and Timisoara. Consequently, it was these cities that played an important role in the coordination of the activity in that period. In 1928, as a result of the activity analysis in the national ruling body it was decided by the general meeting to move its headquarters from Bucharest to a town in Transylvania. Shortly afterwards the Romanian Sports Societies Federation announced the leaders of the Oradea department to take the necessary measures to move the table tennis national ruling body to Oradea (Nagyvárad, June, 8th 1928).

The Romanian Ping-Pong Federation was established on October, 1st 1931 in Oradea. This body led the activity in this sport until 1933 when a new body was elected with the headquarters in Bucharest. (2)

Adorján Péter, the president of Staruinta (Persistence) Sport Association from Oradea, and head of the table tennis Subcomission in the Romanian Sports Societies Federation had a very important role in promoting this sport locally and nationally. He took an active part in the foundation of the Romanian Ping-Pong Federation and supported many activities of the tennis table clubs in Oradea. He organised and trained the Romanian teams who participated in the 1929 and 1931 editions of the world championships.

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STUDY REGARDING THE GOALKEEPER CONTRIBUTION IN THE ATTACKING PHASE IN CONTEMPORARY FOOTBALL

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IULIANA BOROS-BALINT¹, DAN M. GHERŢOIU¹

ABSTRACT. The success of a team is greatly determined by the behavior of its goalkeeper during the game. A very good goalkeeper might assure an important percentage (ex 60-70 %) of the possible victory obtained by his/her team. All these statements sustain the idea that the role and the importance of the football goalkeeper are decisive for the team (Apolzan, 2010). The introduction of the new rule stipulating that as long as a goalkeeper has the possession of the ball, he can make as many steps as he wants provided that he keeps the ball in his hands no more than 6 seconds, confers on the goalkeepers many more opportunities to initiate counterattack and quick attack by running while holding the ball within their hands and passing it over more accurately and consistently especially by long passes, putting the ball back into play by hand or by foot. This situation has been noticed during the World Championship of Brazil on many goalkeepers, among which: *Manuel NEUER* (Germany), the goalkeeper of the world champion team, *Sergio ROMERO* (Argentina), the goalkeeper of the world vice champion team, *Jasper CILLESSEN* (Holland), *Keylor NAVAS* (Costa Rica), *Thibaut COURTOIS* (Belgium). The modern goal keeper must be able to play like a real field player, because the nowadays football requires crucial interventions in the two main phases of play – defending and attacking phase – in the sense that the catching and clearing the ball sent by opponents is made not only by hands, but by foot or head, depending on each phase and sending the ball over to the teammates is made according to a well-established tactical purpose. In such circumstances the goalkeeper has a crucial role for the success or failure of his team. Watching the evolution of the past famous goalkeepers as *Van Der Sar*, *Iker Casillas*, *Petr Cech*, *Gianluigi Buffon*, *Bogdan Lobonţ*, *Ciprian Tătăruşanu*, *Fabien Barthez*, *Jose Luis Chilavert*, and also of those who attended the last Football World Championship of Brazil, we have noticed and found out that a great importance should be given to the personalized training of the goalkeeper and moreover to the role he has to “play” in the attacking phase.

Key words: *football the goalkeeper's role, attacking phase, junior, foresight.*

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REZUMAT. Studiu privind aportul portarului în faza de atac în fotbalul modern. Succesul unei echipe este determinat în mare măsură de comportarea în joc a portarului propriu. De asemenea se spune că un portar foarte bun ar putea asigura un procent foarte important (ex. 60, 70%) din posibila victorie a echipei sale. Toate acestea vin să susțină ideea că rolul și importanța portarului de fotbal în echipă sunt decisive pentru comportarea acestuia (Apolzan, 2010). Prin introducerea noii reguli care susține că portarul în timp ce este în posesia mingii poate face câți pași dorește, atâta timp cât păstrează mingea în mâini timp de 6 secunde, există mult mai multe ocazii pentru portari să inițieze contraatacul și atacul rapid, alergând cu mingea în mână și pasând-o cu o mult mai mare exactitate și consistență, în special prin folosirea paselor lungi, folosind repunerea mingii în joc cu mâna sau cu piciorul. Acest aspect a putut fi observat cu ocazia desfășurării Campionatului Mondial din Brazilia la mai mulți portari, dintre care îi amintim pe: *Manuel NEUER* (Germania), portarul echipei campioane mondiale, *Sergio ROMERO* (Argentina), portarul vicecampioanei mondiale, *Jasper CILLESEN* (Olanda), *Keylor NAVAS* (Costa Rica), *Thibaut COURTOIS* (Belgia). Portarul modern trebuie să fie capabil să joace ca un veritabil jucător de câmp, deoarece fotbalul actual îi cere intervenții decisive în cele două faze fundamentale de joc – *apărarea și atacul* – în sensul că prinderea sau respingerea mingiilor trimise de adversari se face nu numai cu mâna, ci și cu piciorul sau cu capul, în funcție de fază, iar transmiterea mingii la coechipieri se realizează în conformitate cu un scop tactic bine definit. În asemenea condiții și cerințe, portarului îi revine un rol determinant pentru succesul sau insuccesul echipei proprii. Urmărind evoluția marilor portari din trecut precum: *Van Der Sar*, *Iker Casillas*, *Petr Cech*, *Gianluigi Buffon*, *Bogdan Lobonț*, *Ciprian Tătărușanu*, *Fabien Barthez*, *Jose Luis Chilavert*, dar și cei care au participat la ultima ediție a Campionatului Mondial de Fotbal din Brazilia, am observat și constatat că o mare importanță trebuie acordată pregătirii individualizate a portarului dar mai ales rolul pe care acesta trebuie să-l “interpreteze” în faza de atac.

Cuvinte cheie: fotbal, rolul portarului, faza de atac, junior, viziune.

Introduction

The goalkeeper puts the ball back into play, in the attacking phase, with both hand and foot, preferably towards the edges of the field, to a free teammate, on the opposite side to the direction from which the ball came. Other responsibilities of the goalkeeper in the attacking phase are: disengaging the ball as long as possible for the counter-attack, collaborating with his/her teammates for the safety of the ball's circulation and a more advanced positioning (Neța, 2008).

The key elements of the counter-attack initiated by the goalkeeper are as follows:

- After gaining the possession of the ball, the goalkeeper's "foresight" can reveal how he might benefit from the opponent position
- The goalkeeper's decision to run whilst holding the ball or quickly pass it from the exact place where he caught it;
- The teammates position on the demarcation line in order to help the goalkeeper in tacking the best decisions;
- The goalkeeper chooses the most suitable technical procedure for putting the ball back into play in a particular area of the field;
- The goalkeeper chooses if he puts the ball back into play with a low or high shot depending on the time and the position of the teammates and opponents;
- The goalkeeper ensures that his team defensive organization is completely efficient in case the attack fails;

Examples of counter-attack initiated by the goalkeeper by hand and/or by foot:

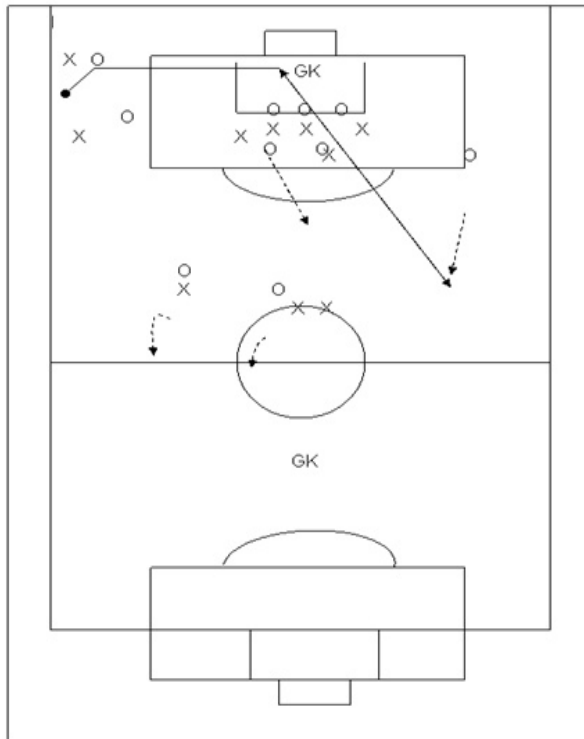


Fig. 1. – Example of counter-attack made by *left midfielder* in the formation: 1- 4-4-2.

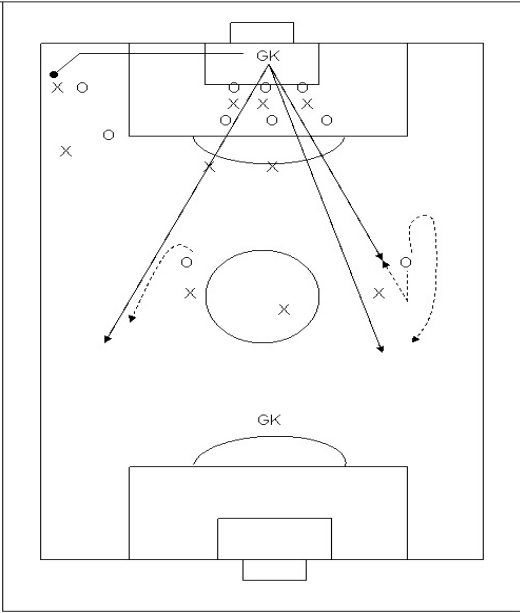


Fig. 2. – Example of counter-attack made by *left side midfielder* in the formation: 1-3-5-2

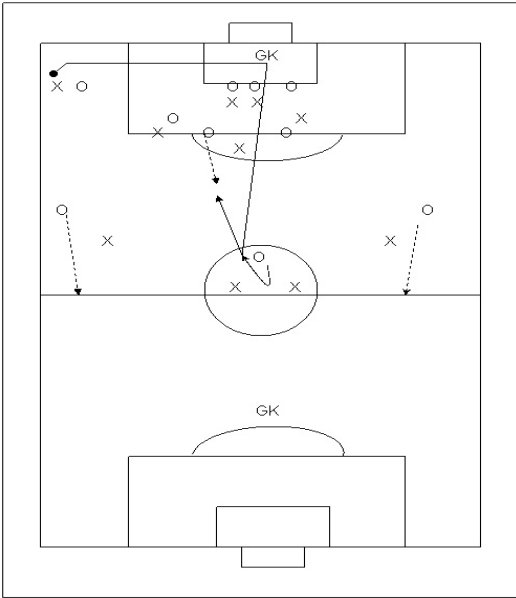


Fig. 3. – Example of counter-attack made by *centre forward* in the formation: 1-4-3-3

All aspects of counter-attack must be **theoretically** debated on a magnetic board, and then **practiced** in the training field, advancing from simple to complex means in such manner to provide the team with the perception about how this strategy can work most efficiently.

For this research we used the following **methods**: the recording method, observing method, statistic-mathematical method and the bibliographical study method.

The research was made on a number of 6 (six) goalkeepers monitored in various competitions from 1st, 2nd and 3rd league. These goalkeepers were: S.E., D.K., F.T., I.I., H. L., G.G. coming from the following football teams: C.F.R. Cluj, F.C. Vaslui (1st league), Mechel Câmpia Turzii (2nd league), Dacia Mioveni, (2nd league), F.C. Avântul Reghin, F.C. Sylvania S.A. (3rd league).

The following technical procedures were recorded and monitored: **putting the ball back into play by hand** (high and low shots) and **by foot** (hitting the ball from the ground level, from volley and half-volley).

Data analysis and interpretation:

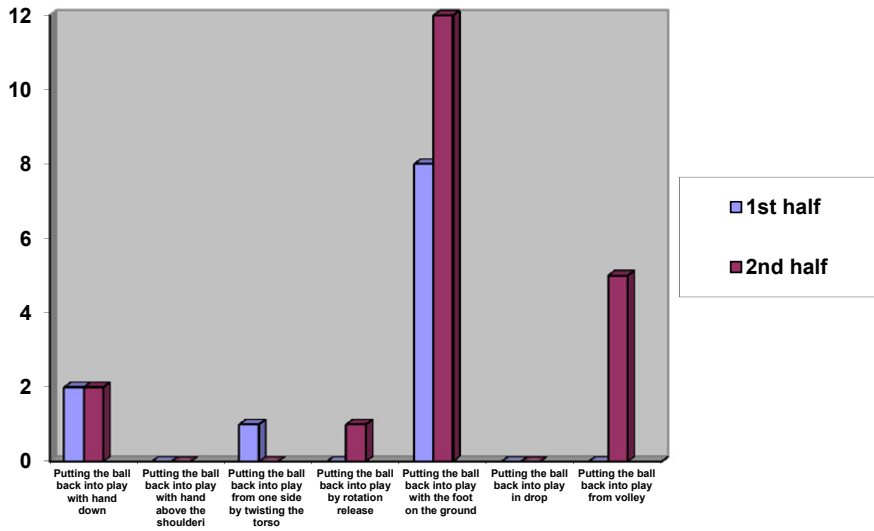
Table 1

Putting the ball back into play by the goalkeeper S.E.: *F.C. C.F.R. CLUJ* – F.C. VASLUI
(a round of the 1st league)

Plays	First half			Successful releases Total	Unsuccessful releases Overall	Total	Last half			Successful releases Total	Unsuccessful releases Overall	Total	Successful releases Total	Unsuccessful release Overall	Grand total
	1' - 15'	16' - 30'	31' - 45'				46' - 60'	61' - 75'	76' - 90'						
Putting the ball back into play with hand down	+		+	2	0	2	+	+		2	0	2	4	0	4
Putting the ball back into play with hand above the shoulder				0	0	0				0	0	0	0	0	0

Plays	First half			Successful releases Total	Unsuccessful releases Overall Total	Last half			Successful releases Total	Unsuccessful releases Overall Total	Successful releases Total	Unsuccessful release Overall	Grand total		
	1' - 15'	16' - 30'	31' - 45'			46' - 60'	61' - 75'	76' - 90'							
Putting the ball back into play from one side by twisting the torso	-			0	1	1			0	0	0	0	1	1	
Putting the ball back into play by rotation release				0	0	0	+		1	0	1	1	0	1	
Putting the ball back into play with the foot on the ground	- + ++	++	- +	6	2	8	++ ++ +	+ - - ++	- + ++	9	3	12	15	5	20
Putting the ball back into play in drop				0	0	0			0	0	0	0	0	0	
Putting the ball back into play from volley				0	0	0	++		++ +	5	0	5	5	0	5

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Graph 1. – Putting the ball back into play by hand and foot by the goalkeeper S.E. – C.F.R. Cluj-Napoca

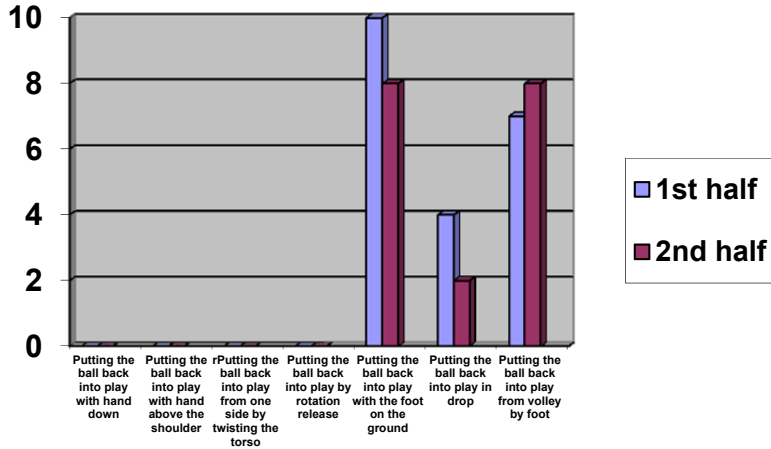
During the whole game, S.E. put the ball back into play 31 times, as follows: 25 successful releases and only 6 unsuccessful releases, the percentage being 80 % successful and 20 % unsuccessful.

Table 2

Putting the ball back into play by the goalkeeper
F.T.: MECHEL CAMPIA TURZII- DACIA MIOVENI

Plays	First half			Successful releases Total	Unsuccessful releases Overall	Total	Last half			Successful releases Total	Unsuccessful releases Overall	Total	Successful releases Total	Unsuccessful releases Overall	Grand Total
	1'-15'	16'-30'	31'-45'				46'-60'	61'-75'	76'-90'						
Putting the ball back into play with hand down				0	0	0				0	0	0	0	0	0

Plays	First half			Successful releases Total	Unsuccessful releases Overall	Total	Last half			Successful releases Total	Unsuccessful releases Overall	Total	Successful releases Total	Unsuccessful releases Overall	Grand Total
	1'-15'	16'-30'	31'-45'				46'-60'	61'-75'	76'-90'						
Putting the ball back into play with hand above the shoulder				0	0	0				0	0	0	0	0	0
Putting the ball back into play from one side by twisting the torso				0	0	0				0	0	0	0	0	0
Putting the ball back into play by rotation release				0	0	0				0	0	0	0	0	0
Putting the ball back into play with the foot on the ground	+- +	-- --	-- +	6	4	10	++ +	-- -	++	6	2	8	12	6	18
Putting the ball back into play in drop	+-		++	3	1	4	-		+	1	1	2	4	2	6
Putting the ball back into play from volley by foot	++ +	-+	+-	5	2	7	++	-- +-	++	5	3	8	10	5	15



Graph 2. - Putting the ball back into play by hand and/or foot by the goalkeeper
F.T.-Mechel Câmpia Turzii

During the whole game, S.E. put the ball back into play 39 times, as follows: 26 successful releases and 13 unsuccessful releases, the percentage being 66 % successful and 34 % unsuccessful

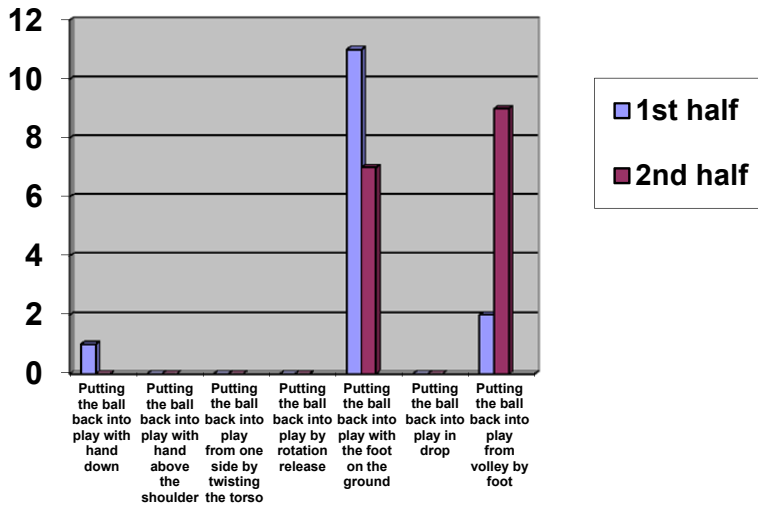
During this game the goalkeeper of Mechel Campia Turzii has never put the ball back into play by hand.

Table 3

Putting the ball back into play by the goalkeeper G.G.:
AVÂNTUL REGHIN-F.C. SILVANIA S.A.

Plays	First half			Successful releases	Total	Unsuccessful releases	Overall	Total	Last half			Successful releases	Total	Unsuccessful releases	Overall	Total	Successful releases	Total	Unsuccessful releases	Overall	Grand total
	1'-15'	16'-30'	31'-45'						46'-60'	61'-75'	76'-90'										
Putting the ball back into play with hand down	+			1	0	1						0	0	0	0	0	1	0	0	1	1
Putting the ball back into play with hand above the shoulder				0	0	0						0	0	0	0	0	0	0	0	0	0

Plays	First half			Successful releases Total	Unsuccessful releases Overall	Total	Last half			Successful releases Total	Unsuccessful releases Overall	Total	Successful releases Total	Unsuccessful releases Overall	Grand total
	1'-15'	16'-30'	31'-45'				46'-60'	61'-75'	76'-90'						
Putting the ball back into play from one side by twisting the torso				0	0	0				0	0	0	0	0	0
Putting the ball back into play by rotation release				0	0	0				0	0	0	0	0	0
Putting the ball back into play with the foot on the ground	++ +	+-	++ -+ +	8	3	11	++	+- +-	+	5	2	7	13	5	18
Putting the ball back into play in drop				0	0	0				0	0	0	0	0	0
Putting the ball back into play from volley by foot		++		2	0	2	+++	-+ +	+- +	5	4	9	7	4	11



Graph 3. - Putting the ball back into play by the goalkeeper
G.G.: AVĂNTUL REGHIN-F.C. SILVANIA S.A.

During the game, G.G. put the ball back into play 30 times, as follows: 21 successful releases and 9 unsuccessful releases, the percentage being 70 % successful and 30 % unsuccessful. The goalkeeper G.G. has put the ball back into play as follows:

- Release of the ball back in play by hand: one successful release;
- Release of the ball back in play by foot: from the ground: 18 releases, out of which 13 successful releases and 5 unsuccessful releases; release of the ball from volley: 11 releases, out of which 7 successful releases and 4 unsuccessful releases.

From the analysis of the recording charts related to the goalkeepers: S.E., D.K., F.T., I.I., G.G., și H.L. we observed the following:

Table 4

Putting the ball back into play

Total Percentage	Putting the ball back into play by hand		Putting the ball back into play by foot		
	Low shots	High shots	Low shots	In drop	From volley
Total	10	3	110	12	48
Total successful releases	10	1	74	12	34
Total unsuccessful releases	0	2	36	0	14
Percentage	100%	30,3%	67,27%	100%	70,1%

From the above table outcomes that these goalkeepers put the ball back into plays as follows:

- **by hand**: - low shot: 10 times, 100% successful releases;
- high shot: 3 times, mistaking 2 times, 30,3% successful releases;
- **by foot**:- from the ground: 110 releases, mistaking 36 times, 67,27% successful releases;
- from half-volley : 12 times, 100% successful releases;
- from volley: 48 times, mistaking 14 times, 70,1% successful releases.

Conclusions

Based on the analysis of the procedures used by the goalkeepers included in this study, we can conclude that the ***training and preparation of this player is by far more complex than that of a midfielder*** due to the new amendments made to the game regulation.

During the attacking phase, the team block must be synchronized by a close collaboration not only for providing the defence in the goal line and dispersing the opposing team attacks, but also for contributing to the attack initiation and execution.

Thus, we may say that:

- The modern football demands from the goalkeeper, as well as from the field players, to be an active element in the attacking phase, to initiate constructive actions. Is common knowledge that the goalkeeper is the first constructor of the game (Roşculeţ, 1966);
- The role of the goalkeeper in football always depends on the situation and on the particular circumstances that determine the goalkeeper to put into practice his personal skills;
- The psychological basis of the defence leading position is interaction.
- The goalkeeper cannot stay isolated, no matter how many qualities he has, the goalkeeper represents a characteristic of a team;
- By his personality, the goalkeeper should draw attention to the important role he has and the trainer should help him in defining characteristics and developing behaviours that consolidate his position.

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DETERMINATION OF THE MOTOR CONFIGURATION IN ORDER TO OBTAIN AN OPTIMUM PHYSICAL CONDITION

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ABSTRACT. Physical condition lays in the ability of the individual to make a special physical effort, reported to the constitutional type and age. A good physical condition constitutes an individual's ability to perform daily activities without the appearance of fatigue and overuse of physiological functions of the body. An optimal physical condition is obtained and maintained by the regularity of adequate physical efforts. The level of physical condition is represented by the ability of each individual to accomplish with ease activities such as: walking and riding the bike, hiking mountains, lifting weights, climbing stairs without showing any disturbing signs, pain or discomfort. **Objective.** The determination of the motor configuration has a great influence in achieving a level of individual physical conditions that are consistent with the requirements of the future profession. The choice of means and methods specific to physical education, used in the lesson of physical education, which would be consistent with the level of capacities and the state of health of every individual. **Methods.** Investigative methods used are: the methods and techniques of proper research (observation, experiment) as well as methods for processing, analysis and interpretation of data collected (mathematical, statistical and graphics). **Results.** Physical exercises are carried out rhythmically; they improve and maintain the physical condition of the body, extending life by improving the functionality of the organs and decreased risk of illness. For the students, and not only, the most effective form of activity takes place within the institutional physical education and sport, through the use of methods and means of physical education lesson. **Conclusions.** The development of physical condition in the lesson of physical education must be carried out through specific ways and means; physical condition development methodology has many specific ways and means that can be used depending on the purpose, the maximum possibilities of the body, sex, level of training, young age. The determination of motor configuration, beneficial to improve physical condition through the lesson of university physical education, is an academic requirement, whereas there is a clear delimitation; its establishing according to the professional profile characteristics can ease the binding of the instructive-educational activity of motor needs of the future profession.

Key words: *determination, configuration, physical condition*

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REZUMAT. Determinarea configurației motrice în vederea obținerii unei condiții fizice optime. Condiția fizică consta în abilitatea individului de a presta un efort fizic deosebit, raportat la tipul constituțional și vârsta acestuia. O bună condiție fizică constituie capacitatea unui individ de a-și efectua activitățile zilnice fără apariția oboselii și fără suprasolicitarea funcțiilor fiziologice ale organismului. O condiție fizică optimă este căpătată și menținută prin efectuarea regulată a unor eforturi fizice adecvate. Nivelul condiției fizice este reprezentat prin abilitatea fiecărui individ de a realiza cu ușurință activități precum: mersul pe jos și pe bicicletă, drumeții pe cărările munților, deplasarea unor greutăți, urcatul scărilor fără apariția unor semne deranjante, durerea sau disconfortul. **Obiective.** Determinarea configurației motrice are o mare influență în atingerea unui nivel de manifestare a condiției fizice individuale care să fie în concordanță cu cerințele fizice ale viitoarei profesii. Alegerea unor mijloace și metode specifice educației fizice, utilizate în lecția de educație fizică, care să fie în concordanță cu nivelul de manifestare a capacităților motrice și cu stare de sănătate a fiecărui individ. **Metode.** Metodele de investigație utilizate sunt: metodele și tehnicile de cercetare propriu-zise (observația, experimentul) dar și metode de prelucrare, analiză și interpretare a datelor recoltate (statistico-matematică, grafică). **Rezultate.** Efectuarea exercițiilor fizice în mod ritmic, îmbunătățesc și mențin condiția fizică a organismului, prelungind viața prin îmbunătățirea funcționalității organelor și scăderea riscului de îmbolnăvire. Pentru studenții, și nu numai, cea mai eficientă formă de activitate se desfășoară în cadrul instituționalizat al educației fizice și sportive, prin utilizarea metodelor și mijloacelor din lecție de educație fizică. **Concluzii.** Dezvoltarea condiției fizice în lecția de educație fizică trebuie realizată pe căi și cu mijloace specifice; metodologia dezvoltării condiției fizice dispune de numeroase metode și mijloace specifice care pot fi utilizate în funcție de scopul urmărit, de posibilitățile maxime ale organismului, de sex, de nivelul de pregătire, de vârsta tinerilor. Determinarea configurației motrice, benefică îmbunătățirii condiției fizice prin lecția de educația fizică universitară, reprezintă o cerință didactică, întrucât nu există o delimitare clară a acesteia; stabilirea ei funcție de caracteristicile profilului profesional, poate ușura legarea activității instructiv-educative de necesitățile motrice al viitoarei profesii.

Cuvinte cheie: *determinare, configurație, condiție fizică*

Introduction

The improvement of the physical condition of young people, during the lesson of physical education on the basis of specific means, shall be subject to the level of motor capacities, to the functional capabilities of each individual but also to the objectives arising from the requirements of the future profession,

by developing general motor elements: strength, stamina, endurance, muscle elasticity and joint mobility, coordination, increasing the capabilities of functional effectiveness: respiratory system, cardio-vascular system, nervous system, metabolism, immune system, developing the potential of general physical structure by decreasing body fat and body shape adjustment to current requirements. Through an optimal physical condition, an efficient report shall be created between the specific characteristics of each individual (age, sex, personality, physical structure) and the physical effort made in solving the tasks of motor lesson of physical education, and not only. The benefits are far greater than they seem at first glance, being both physiological, emotional and social. This can be confirmed by those attending a gym or who are involved in a sports activity, carried out rhythmically. Free time is the biggest problem of modern man and also the main reason why man does not work out.

Objectives. Determining the motor configuration has a great influence in achieving a level of manifestation of individual physical condition that are consistent with the requirements of the future profession. The choice of means and methods specific to physical education, used in the lesson of physical education, so that they are consistent with the level of motor capacities and with the health state of each individual.

Hypothesis. The research activity was based on the following assumption: the Does the determination of motor configuration that facilitates getting an individual an optimum physical condition lead to enhancing the quality of motor capacities, as contributory factor of improving them?

Materials and Methods

The research was carried out under the terms of the educational process within the school hours of University physical education in the academic year 2012-2013 from the education plan (14 hours/semester). The sample under study included students from the first year of study, consisting of 60 students, selecting those subjects took into account their specialization. Initial testing (ti) took place during the hours of physical training during the months of October/November 2012 and the final testing (tf) during the hours of physical education in May 2013. Investigative methods used are: the methods and techniques of proper research (observation, experiment) as well as methods for processing, analysis and interpretation of data collected (mathematical, statistical and graphics). The determination of the motor configuration was achieved by assessing competences (Finichiu, M., 2010) that have a decisive role in achieving an optimum level of manifestation of the individual physical condition and that are agreement with the requirements of the future profession, namely:

a. the abdominal muscles, the assessment tools were picking up the trunk from dorsal supine, contretemps 30" and raising the feet extended from hanging position at a fixed scale and tested the strength of the force of the muscle groups;

b. the muscles of the back, the assessment tool was an extension of the torso lying ventral contretemps 30" and tested the strength of the force of the muscle groups;

c. the muscles of the feet, the assessment tools were long jump on the place and vertical jump on the place, from the squat and tested the level of force in speed mode horizontally and vertically;

d. cardio-respiratory resistance, the assessment tool was a long run, moderate tempo, over a distance of 1000 m.

Through his formation, the field engineer can work in a wide range of specialized fields, development mostly in open air, his work representing a combination of physical effort with the psychic and intellectual ones. In this profession it is necessary a high level of development of the motor capacities, such as: resistance, strength and coordination capabilities. Along with these physical requirements, the engineer has to answer some requirements of mental and intellectual nature, whose share is particularly high in the profession exercised, such as: General Intelligence, the spirit of observation, psychological resistance, memory, imagination, intuition, quick analysis capacity of information, synthesis capacity, generalization capability of quick combining data, stable, distributive attention and focus.

Results

Analysis activity and motor configuration determination has been carried out on the basis of the scheme (Colibaba-Evuleț, d. and Bota, I., 1998) of the ranking of favorable predispositions developed by the specialists of the branch. Determination of the motor configuration had took into account the characteristics of the professional profile of the field engineer: qualities complexity, abilities and technical skills, variable working schedule, dynamic and static effort, of variable intensities, high demands of large organic functions (systems and apparatus), direct productive work, varied conditions of work in terms of the environment, climate and stress. Training program requirements, depending on the professional profile characteristics, obtained by determining the motor configuration beneficial to the improvement of the physical condition for students in technical education:

- development of optimal physical condition by increasing the level of manifestation of the skills assessed, cardio-vascular stamina, strength and local muscle resistance;

- maintaining/improving health state through the use of means and exercises specific to physical education and sports.

Knowing the importance of various phenomena studied in this research, analyzing general trends but also synthetic and expressive projection of the processes, was achieved through the use of statistical and mathematical-method. Using this method has enabled us to form an accurate and complete picture of the complex phenomena that contributes to developing, strengthening and perfecting the motor capacity. The statistical processing was based on the calculation of the following statistical indicators (Dragnea, A., 1984): the arithmetical mean (\bar{X} , expresses the central tendency of values), median (Med., the position that divides into two equal parts the data string), the upper limit (Max, the superior value of the string), the lower limit (Min, the lower value of the string), amplitude (the difference between the maximum and minimum value), the standard deviation (S, represents the dispersion indicator, the degree of scattering values) and the coefficient of variability (Cv%, the degree of homogeneity of the researched sample).

a. *Abdominal Muscles*

- According to the collected data from *lifting the torso in dorsal recumbent, contretemps 30"* (Table 1) through which we tested the manifestation level of the resistance in strength regime of the abdominal muscularity we can draw the following conclusions:

- The arithmetic mean (\bar{X}) calculated after the initial test (ti) had a value of 23,12 no. repetitions, lower with 2,37 no. of repetitions in comparison with the value of the final test (tf), arithmetic mean that was of 24,49 no.rep. The mean of the data string was at the value of 21 no. of repetitions after "ti" and at a value of 23 no. of repetitions after "tf"; it was recorded a maximum value of 28 no. of repetitions after "ti" and a value of 30 repetitions after "tf"; a minimum value of 19 repetitions after "ti" and a value of 20 repetitions after "tf". The amplitude, the standard deviation and the variability coefficient, both after the initial and the final test, show us a collective with a medium homogeneity and a normal distribution of the results.

- According to the collected data after *lifting the legs extended from hanging position at a fixed scale* (Table 1) through which we tested the manifestation level of the resistance in strength regime of the abdominal muscularity we can draw the following conclusions:

- The arithmetic mean (\bar{X}) calculated after the initial test (ti) had a value of 4,73 no. of repetitions, lower with 2,21 repetitions in comparison with the arithmetic mean value from the final test that was of 6,94 repetitions. The mean of

the data string was at a value of 4 repetitions after the initial test and at a value of 6 repetitions after the final test. The maximum measured value was of 10 repetitions after "ti" and of 14 repetitions after "tf"; the minimum recorded value was of 1 repetition after the "ti" and of 3 repetitions after the "tf". The amplitude, the standard deviation and the variability coefficient, both after the initial and the final test, show us a collective with a medium homogeneity and a normal distribution of the results.

b. Back Muscles

- According to the collected data after *the extension of the torso lying ventral, contretemps 30"* (Table 1) through which we tested the manifestation level of the resistance in strength regime of the back muscularity we can draw the following conclusions:

- The arithmetic mean (X) calculated after the initial test had a value of 18,23 no. of repetitions, lower with 3,33 repetitions in comparison with the arithmetic mean at the final test that was equal with 21,56 repetitions. The mean of the data string was at a value of 16 repetitions, after "ti" and at a value of 19 repetitions after "tf". The maximum measured value was of 21 repetitions after "ti" and of 24 repetitions after "tf"; the minimum recorded value was of 14 repetitions after "ti" and of 16 repetitions after "tf". The amplitude, the standard deviation and the variability coefficient, both after the initial and the final test, show us a collective with a medium homogeneity and a normal distribution of the results.

Table 1

Calculated statistic indicators

Evaluated competencies		Test	Statistic indicators						
			X	S	Cv	Med	Max	Min	W
Abdominal muscles	Lifting the torso in dorsal recumbent, contretemps 30" (no. rep.)	ti	22,12	11,55	13,08	21	28	19	9
		tf	24,49	10,79	14,24	23	30	20	10
	Lifting the legs extended from hanging position (no. rep.)	ti	4,73	8,17	16,74	4	10	1	9
		tf	6,94	10,13	16,01	6	14	3	11
Back muscles	the extension of the torso lying ventral, contretemps 30"	ti	18,23	12,34	16,78	16	21	14	7
		tf	21,56	14,71	15,33	19	24	16	8

Inferior limbs muscles	Length jump from standing position (cm)	ti	200,95	18,95	20,15	197	230	180	50
		tf	218,77	15,15	14,62	214	249	190	59
	Vertical jump from standing position (cm)	ti	24,22	11,52	16,31	22	33	21	12
		tf	30,38	12,21	13,01	26	37	23	14
Cardio-respiratory resistance	Long run over 1000 m (min.)	ti	5,07	6,72	20,44	4,49	4,04	5,29	1,25
		tf	4,39	7,34	16,11	4,30	3,49	5,13	1,36

c. Inferior limbs muscles

- According to the collected data after the *long jump from standing position* (Table 1), through which we tested the manifestation level of the horizontal explosive force, we can draw the following conclusions:

- The arithmetic mean (\bar{X}) calculated after the initial test had a value of 200,95 cm, lower with 17,82 cm in comparison with the arithmetic mean at the final test that was equal with 218,77 cm. The mean of the data string was at a value of 197 cm after “ti” and at a value of 214 cm after “tf”. The maximum measured value was of 230 cm after “ti” and a value of 249 after “tf”; the minimum recorded value was of 180 cm after “ti” and of 190 cm after “tf”. The amplitude and the standard deviation both after the initial and final tests show us a collective with a normal distribution of the results; the variability coefficient presents us a group with no homogeneity after the initial testing and with a medium homogeneity after the final test.

- According to the collected data after the *vertical jump from standing position* (Table 1), through which we tested the manifestation level of the vertical explosive force of the inferior limbs muscles, we can draw the following conclusions:

- The arithmetic mean (\bar{X}) calculated after the initial test had a value of 24,22 cm, lower with 6,16 cm in comparison with the arithmetic mean at the final test that was equal with 30,30 cm. The mean of the data string was at a value of 22 cm after “ti” and at a value of 24 cm after “tf”. The maximum measured value was of 33 cm after “ti” and a value of 37 after “tf”; the minimum recorded value was of 21 cm after “ti” and of 23 cm after “tf”. The amplitude, the standard deviation and the variability coefficient, both after the initial and the final tests, present us a group with a medium homogeneity and a normal distribution of the results.

d. Cardio-respiratory resistance

- Collecting the data from the *long run over 1000 m*, through which we tested the cardio-respiratory resistance, we can draw the following conclusions:

➤ The arithmetic mean calculated after the initial test presents us a value of the arithmetic mean of 5 min 7 sec., lower with 0,28 sec. in comparison with the arithmetic mean after the final test that had a value of 4 min. 39 sec. The mean of the data string was, after the initial test, at 4 min. 49 sec. and after the final test at min. 30 sec. The maximum recorded value was of 4 min. 4 sec. after the initial test and of 3 min. 49 sec. after the final test; the minimum recorded value was of 5 min. 29 sec after the initial test and of 5 min. 13 sec. after the final one. The amplitude and the standard deviation both after the initial and the final one show us a group with a normal distribution of the results; the variability coefficient presents us a collective with no homogeneity after the initial test and a collective with a medium homogeneity after the final test.

Conclusions

1. Physical education and sports activities are constant concerns for all factors responsible for educating younger generations in training, health and biomotor capacity. That is why it is imperative to know the capacity and the level of expression of physical condition in relation to the characteristics of each professional profile trades, in order to develop effective training programs.

2. In the current economic conditions, whose effects are felt on multiple plans, society is keen to exceed and get to know the phenomena related to accommodating the human conditions and pace of work and life imposed by the development of the society, to establish the measures necessary to ensure the extension of the period of active life, prevention of degenerative processes of the body, of the involution of certain functions due to lack of strain, that is a consequence of movement limitation and physical effort from the work process.

3. The development of physical condition in the lesson of physical education must be carried out on specific ways and means; physical condition development methodology has many specific ways and means that can be used depending on the purpose, the maximum possibilities of the body, sex, training level, youth age.

4. The development of physical condition plays a special role in the achievement of the objectives of physical education undergraduate accounting for significant use of this process; there is no lower age limit for the development of physical condition, there is only appropriate ways and means, intense periods of development and of relative stagnation.

5. Training program requirements, depending on the professional profile characteristics, obtained by determining the motor configuration beneficial to physical condition improvement of students in technical education are confirmed also by the execution of the recognition scheme of the predispositions beneficial to their physical condition during the university physical condition.

6. Determining the motor configuration, beneficial to improving physical condition through the lesson of physical education, is an academic requirement, whereas there is no clear delimitation; its establishment depending on the specific professional profile can ease the binding activity of the instructive-educational motor needs of the future profession.

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THE DEVELOPMENT AND THE BIOMETRIC POTENTIAL REFLECTED ON THE KNOWLEDGE OF PHYSICAL EDUCATION TEACHER

CAMELIA PLĂSTOI¹

ABSTRACT. The biometric potential and rate of development of school children must be a priority understood and valued by prospective physical education teachers to be to focus on a thorough understanding of the parameters of the human body. Compliance with the new national decisions increasingly involve more preparation and training of future physical education teachers can find appropriate means so biometric development to be a priority. National regulation is necessary to ensure a pace and as healthy development of children, especially in the context of the law no.1/2011, when there was reorganization in respect of children attending preparatory classes for 6 years.

Key-Words: *biometric potential, physical education teachers, students.*

REZUMAT. *Dezvoltarea și potențialul biometric reflectat în cunoștințele profesorului de educație fizică.* Dezvoltarea școlărilor, din punct de vedere al potențialului biometric, trebuie să devină o prioritate a profesorilor de educație fizică sub aspectul înțelegerii corecte al valorii pe care o are acesta asupra menținerii unui organism sănătos. Sub acest aspect, reorganizarea implementată datorită aplicării legii nr. 1/2011, cu privire la începerea obligatorie a programului școlar de la vârsta de 6 ani și la încărcarea exagerată a programelor școlare, atrage după sine anumite forțări în dezvoltarea timpurie a școlărilor fapt ce va impune o informare mult ai amănunțită din partea celor care predau educația fizică în școală. Astfel, acumularea de noi informații de către profesorul de educație fizică se impune ca o necesitate și se va reflecta în capacitatea acestuia de a găsi cele mai adecvate metode și mijloace ce predare, ce vor genera, cu siguranță, valori pozitive privind dezvoltarea școlărilor.

Cuvinte cheie: *potențial biometric; profesor de educație fizică, studenți.*

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Introduction

Currently, Romania is facing a time of profound transformation, both by reforming various fields and through the global economic crisis that has strong effects over the Romanian society.

Regarding the education system from Romania the situation is more delicate, taking into account the target segment and the new education law (Law 1/2011) that manages to "disturb" a field that was very stable in the past, both regarding job security and an education system which, with good and bad things, maintained Romania among the countries with a good international representation in this field.

The purpose of a training program in physical education should be to launch on the labor market qualified teachers who also know the provisions of the new education law from Romania as well as the importance in aligning the education system with international requirements. Achieving these goals will be possible only in the context of long life learning stipulated in the law so that those who teach to get the latest methods of teaching and training.

Training activities teachers undertake two complementary actions:

- an act of renewal and improvement of professional practice by updating the knowledge acquired during initial training;
- an action aimed at retraining in new skills including obtaining diplomas validated.

The action design a training program for trainers have started to look to identify training needs. Identification of training needs analysis of the socio-economic needs in general and program area which is addressed in particular.

The idea of the above, both current teachers and those who embrace the future, this trade should, in addition to a good professional to complete the "arsenal" of teaching with the latest news both in terms of new requirements arising from the purpose to be pursued, and in terms of new student-centered teaching methods. It is also necessary to review the use of public instruction and assessment (within the meaning of their modernization) in order to be offered to students and stdenților all elements allowing them the potential of both everyday life and beat the prospect of teaching in education.

Methods: medical history, clinical examination, SPSS for statistical indicators.

The research involved recording the knowledge of the importance of the component biomotric school children using questionnaires that were answered by students in their final years.

Were taken into account right and relevant answers.

Subjects

The research was achieved on two groups of subjects, students in the final year of college and who have expressed an option to become a teacher of physical education

Thus was achieved:

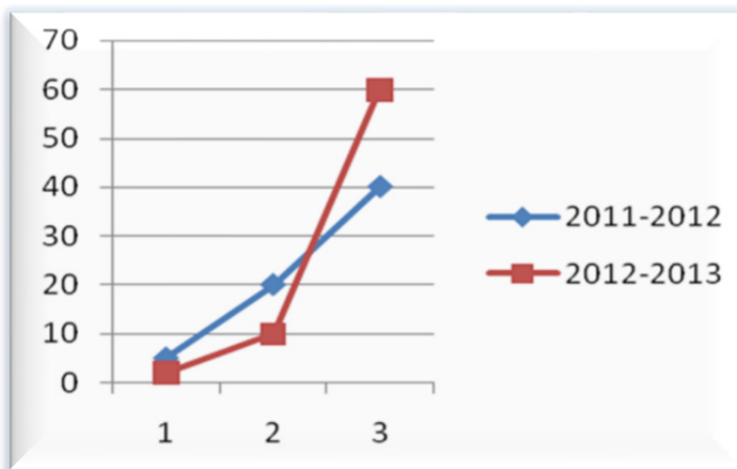
- a group of 55 subjects to graduation in academic years 2011-2012;
- a group of 63 subjects to graduation in academic years 2012-2013.

To design a training program is to achieve the following objectives:

- the ability to provide those interested in the certification training complex;
- development of specific skills among students, related professional trainer status, design, development, organization, implementation and evaluation of training programs;
- strengthening the body of professionals active in the training programs conducted at the highest standards of quality;
- validation of a functional model based on collaboration and partnership, training for trainers of trainers.

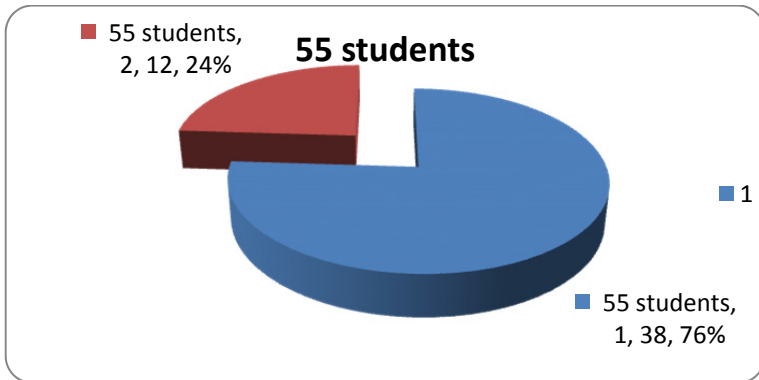
This is justified through the real influence that knowledge has biometric parameters to work with the children during physical education classes.

The graph no. 1 shows the evolution of the importance we give students knowledge biometric information about children in the academic years 2011-2012 and 2012-2013.



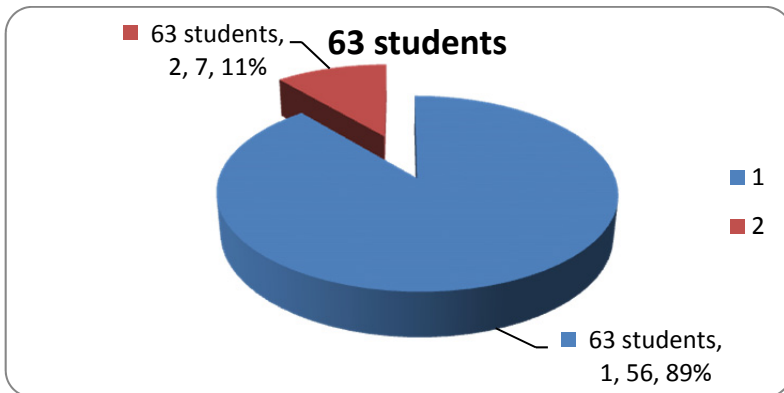
Graphic no.1. The evolution of the importance we give students knowledge biometric information about children.

In this stage is also the students implement programs with more complex activities, with the athletic component. Increasing specific effort parameters (volume, intensity, duration and complexity of the effort) has been achieved, (as in gymnastics on dry land), progressively during the trainings (recovery meetings).



Graphic no. 2. Increasing specific effort parameters (volume, intensity, duration and complexity of the effort).

For graphic no. 2 the value is: 76% (38 students) of point 1 and 24% (12 students) of point 2.



Graphic no. 3. Progressively during the trainings.

For graphic no. 3 the value is: 89% (56 students) of point 2 and 11% (7 students) of point 1.

Conclusion

- Considered very important that prospective physical education teachers to put accent on development biometric as correct as scholars are at a much faster rate and often disorganized.
- The opportunity for graduate students, and not only to qualify and refine that:
 - trainers;
 - trainers/specialist training and professional development;
 - program coordinator / training projects;
 - human resources secretary.
- Capacity for knowledge to create the premise expanding the skills and ability to find various jobs. Create a database of useful information and can then promote their values.
- Increase awareness at national level which will aserteine long-term positive effects on physical education and beyond.

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APPLIED MOVEMENT GAMES FOR CHILDREN WITH SPECIAL EDUCATIONAL REQUIREMENTS

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ABSTRACT. The movement game, being a physical activity, represents a complex form of activity, which due to some form and effect characteristics, is used from a very young age. The many tasks of the movement games imply sorting the games based on criteria, some which are connected with the format of the game, others with the content or the effect of the game and even the season in which they are played.

The game is an efficient and sufficient way of fulfilling the duties of the child's moral education, contributing in the development of self-control, auto-control, independence, discipline, perseverance, along with many other qualities of will and character features. The movement games for children with special educational requirements are effective in making a progress in locomotion and also in developing communication skills. The activities which include motion games can be applied to other subjects as well, at any other age. As long as they end up with remarkable results, the activities can be diversified by raising the complexity.

Key words: *game, motion games, locomotion*

REZUMAT. *Jocuri de mișcare aplicate la copii cu cerințe educative speciale.* Jocul de mișcare, ca mijloc al activității fizice, reprezintă o formă complexă de mișcare, care datorită unor caracteristici de formă, conținut și efecte, este folosit din cea mai fragedă vârstă. Multitudinea sarcinilor jocului de mișcare impune o ordonare a jocurilor pe baza unor criterii, unele legate de forma jocului, altele de conținutul jocului, altele de efectivul de joc sau de anotimpul în care se practică. Jocul este un mijloc eficient și suficient pentru realizarea sarcinilor educației morale a copilului, contribuind la dezvoltarea stăpânirii de sine, autocontrolului, spiritului de independență, disciplinei conștiente, perseverenței, precum și a multor altor calități de voință și trăsături de caracter. Jocurile de mișcare la copii cu cerințe educative sunt eficiente atât în atingerea progreselor pe plan motric cât și în dezvoltarea abilităților de comunicare. Activitățile, ce cuprind jocuri de mișcare pot

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fi aplicate și altor subiecți, la orice vârstă. În măsura în care acestea înregistrează rezultate remarcabile, pot fi diversificate prin creșterea gradului de complexitate a activităților.

Cuvinte cheie: *joc, jocuri de mișcare, motricitate.*

Introduction

The game is a projection and a compensation activity, especially for those functions which are required by direct life tasks and also by the ones which are not completely imposed. This is why games help to subtly adapt the child in the environment (Răduț-Taciu, R., 2004).

Summarizing his thoughts regarding the importance of games, Gross said: "If developing the capacity of adapting to certain problems that life imposes is the main goal of our childhood, the primary way of doing this is by playing games. This is why we can affirm that we do not play because we are children- we are given our childhood so that we can play" (Chateau, J. quote by Marolicaru, M., 2011, page 27).

Goals

Identifying and selecting certain movement games - for walking, running, jumping, throwing and catching - with adapted application and testing, in order to develop motion habits for children with special educational requirements.

The movement game

The movement game, being a physical activity, represents a complex form of activity, which due to some form and effect characteristics, is used from a very young age. The many tasks of the movement games imply sorting the games based on criteria, some which are connected with the format of the game, others with the content or the effect of the game and even the season in which they are played. During the game the child runs, jumps, crawls, climbs, the movements turning to be more precise. By playing, children overcome their self-consciousness shyness more easily, and they empower their creativity and self-control. They are also developing their memory, attention, rationality, responsibility spirit, group attachment, discipline, will and fairness. Playing these games means following some relatively easy steps. They have to include movements which are already

known by the students, and they also have to be accessible and attractive so that they won't last long. It is also important that the movements are not repetitive and the means of using them are simple. A slow approach to the game joined by a demonstration and explanation is carried out to accustom to the rules and tasks. This way, the next step can be the training itself, followed by speeding the transition from one movement to another while shortening the duration by modifying the rules or by adding more tasks. The teacher always has to pay attention to the prevention of accident by verifying the devices and objects, the use of mattresses, stabilizing the working space and supporting the students in difficult moments.

We conclude affirming that the game represents a connection between the physical, intellectual and moral education of the child, forming positive character traits such as: boldness, team work and the ambition to reach a goal and to win.

The specialized literature describes some criteria to classify the motion games. Authors Gheorghe Mitra and Alexandru Mogoș, in their work *The methods of physical education in school*, describe the games based on their content, form, number of participants, but this is also used by most Romanian specialists to sort the games into motion, dynamic and elementary games, starting games for different sports and sports games (Mitra, Gh., 1980).

Having the idea that movement games are used in different ways in physical education, and according to specialists Gheorghe Chiriță and Emil Verza, we consider that a right systematization of the games would reach the goals. Having this in mind, the movement games can be divided into: games for forming and improving basic motion, games for developing motions for certain sports, games for motion sensibility and games for developing the attention.

Because the criteria are very numerous and their variety is hard to set in just one classification, we can not talk about an universal classification for motion games. But the way of classifying the games isn't important, but remarking their diversity. Therefore, it is normal that games, in general, have a certain formative and instructive characteristic.

The function of movement games

Different studies on games have shown that they accomplish many tasks. The main functions of the game are: obtaining new knowledge from practical and mental assimilation of life's characteristics; forming the educational part of games which includes learning about the energy, gestures, imagination and behavior.

Games help children to learn about attention, physical abilities and capacities, personality features (perseverance, promptitude, tidiness), features related to the group (rightness, competitiveness, sociability) which shape the ethic side of one's behaviour, stimulating the complex movements by actively contributing at growing and developing. This appears to be the main function in motion games, sports games, competitions, and as a second function in simple handling games, suitable for younger children. During childhood this is a major function, becoming later on a marginal one.

Among the secondary functions of games we can find: balance, toning (by having an active and compensatory character while having tense activities), projection and entertainment.

The game is an efficient and sufficient way of fulfilling the duties of the child's moral education, contributing in the development of self-control, auto-control, independence, discipline, perseverance, along with many other qualities of will and character features. The value of games can be observed in developing sociability, team-work and relationships between children. Among all games, but especially among the movement ones, the multiple possibilities of harmoniously developing the organism are being created. Additionally, the game determines a state of joy, of happiness, all beneficial when it comes to growing up. By participating in games, the student is initiated in aesthetics and learns how to create it, achieving by this new knowledge and responsibilities.

To conclude, we can affirm that by playing the child has a large expansion of personality, realizing by this an accumulation of life experience, creation, interiorization, aspirations and wishes that can be seen directly in the behaviour of the child and which represent the projective part of their personality.

Application methods

In physical activities an important place is took by movement games. In every school, even with a low budget, moving skills can be developed. All that is needed is initiative, dedication and attention from the teacher to maintain a proper space for these activities. Students prefer physical activities which include energetic games instead of repetitions of technical procedures because they are more attractive and relaxing. They always act consciously, being stimulated by the diversity of the contents and the forms of organizing the lessons. The high spirits of the activities makes them more attractive and during the game, the participants use both their physical and mental qualities, being driven by the will of winning.

The selected games are took directly from the bibliography or transformed and adapted to the needs and particularities of the students with special educational needs.

We will present a few examples of motion games which contribute at the development of locomotion.

Motion Games for walking:

a) *„Walking of footsteps”*



Fig. 1. – „Walking on footsteps” game (Macra-Oșorhean et al., 2014)

The correction and educational part: learning how to walk, how to maintain the balance, paying attention to footsteps, correcting the posture and the lining of the body, exercising the attention point, perception of spatial.

What is needed: playground, chalk.

Description: the players will align in a row, one beside the other, and they will each walk on the footsteps.

Methodic indications: the one who does it the fastest and the most correctly wins.

Options: based on the placing of the footsteps, the players can be guided, therefore the game can be done with smaller or bigger steps, jumping, slower or faster walking, walking on toes or heels.

b) *„The dwarf’s walk”*



Fig. 2. – „The dwarf’s walk” game (Macra-Oșorhean et al., 2014)

The correction and educational part: developing the muscular force of the legs, articulation mobility, muscular elasticity, coordination and balance.

What is needed: playground, chalk.

Description: the players will align in a row, one next to the other. They will walk with their knees bent, their torso straight, and bringing the leg ahead will be done by slowly lifting the body with the knee in the direction proposed. The footing can be done with the front part of the sole. The start is set by the teacher and the children will walk like that until reaching the marked finish line.

Methodic indications: the one who does it the fastest and the most correctly wins.

Options: the players can align in a row, one next to the other or one beside the other.

c) „The clumsy horse”



Fig. 3. – „The clumsy horse” game (Macra-Oșorhean et al., 2014)

The correction and educational part: exercising walking, educating balance, controlling the moves, mobility, stability, muscular toning, orientation.

What is needed: playground, whistle, tenpins.

Description: at 6-8 m in front of every child, an obstacle will be placed. At the start signal, the child with his ankles tied in the form of an eight will start moving by walking fast towards the object in front of him. He will go a long way round it and will return to the start line on the right side.

Methodic indications: the one who does it the fastest and the most correctly wins.

Options: the players can go 2 rounds or they can return doing the dwarf's walk.

Movement games for running:

a) „The number race”



Fig. 4. – „The number race” game (Macra-Oșorhean et al., 2014)

The correction and educational part: educating running, gaining control, planning movements, muscular toning, concentration capacity, self-control.

What is needed: playground, tenpins.

Description: the players will align in a row keeping a 1,5-2 m distance. Every player has a number. The teacher will call out a number. The player with the called-out number steps to the front and starts running towards the marked place, goes around it and then returns at the start place.

Methodic indications: the one who does it the fastest and the most correctly wins.

Options: the players can run with their hands at their back or with their hands straight in the air.

c) „The twins”



Fig. 5. – „The twins” game (Macra-Oșorhean et al., 2014)

The correction and educational part: coordination, motion control, balance, muscular toning, stabilizing in different postures, mutual respect, perseverance, energy, orientation, collaboration, solidarity, will.

What is needed: playground, tenpins, whistle, chalk.

Description: the players will be set in pairs, back to back, holding their arms with their elbows bent. One of them will be facing the obstacles and the other one will be facing the start line. At the teacher’s signal, the pairs will run 15-20m. At the finish line where the obstacles will be placed, they each change roles and head back.

Methodic indications: the pair which reaches the start line first.

Options: the game can also be done without forming pairs.

d) „Fill your island”



Fig. 6. – „Fill your island” game (Macra-Oșorhean et al., 2014)

The correction and educational part: movement correction, coordination, rapidity, stimulating vital functions of the organism, improving running.

What is needed: playground, newspapers.

Description: the players will stay at 2-3 m distance one from another on the playground where some newspapers will be set, representing the islands. At the signal, the players will start running between the newspapers. When the teacher will say: “Fill your island” the students have to occupy one of the.

Methodic indications: the player who fills his place the fastest wins.

Options: the players can either walk, run or jump.

Motion games for jumping:

a) “The ten jumps”



Fig. 7. – “The ten jumps” game (Macra-Oșorhean et al., 2014)

The correction and educational part: moves control, developing balance, controlling movements, toning muscles, self-confidence, affirmation will, concentration and mobilization capacity, perserverence, discipline.

What is needed: playground, chalk.

Description: The players will be set in a straight line. The teacher will count from 1 to 5. For every number called-out by the teacher, the students have to jump.

Methodic indications: the student who has jumped the farthest after 10 jumps wins.

Options: the teacher can count to 10 so that the children can do 10 jumps one after another.

b) „Jump on the line!”



Fig. 8. – „Jump on the line!” game (Macra-Oșorhean et al., 2014)

The correction and educational part: developing coordination and control, muscular force, balance, self-control and self-confidence, stimulating learning capacities by experiencing new movements.

What is needed: playground, chalk.

Description: the players will jump using only one leg, from one side to another of the chalk line, going straight ahead.

Methodic indications: the one who does it the fastest and the most correctly wins.

Options: the jumps can be done on a bench and using both legs.

c) „Jumping string”



Fig. 9. – „Jumping string” game (Macra-Oșorhean et al., 2014)

The correction and educational part: developing leg coordination, putting the whole organism in action, courage, self-control, determination, orientation, complex coordination of the body.

What is needed: playground, jumping string.

Description: the students will be set in a straight line, keeping some distance between one and another, with the string at their back, with their arms a little bent. At the signal, every student will jump using the right leg and then will switch by using the left one. After that they can jump on both legs, in a convenient rhythm.

Methodic indications: the one who does it the fastest and the most correctly wins.

Options: the jumps can be done by going forward instead of staying in one place.

Motion games for throwing and catching:

a) „The squirrel”



Fig. 10. – „The squirrel” game (Macra-Oșorhean et al., 2014)

The correction and educational part: controlling movements, synchronizing moves, mobility, stability, coordination of both hands, toning muscles, initiative, communication, relating with others.

What is needed: playground, chalk, ball.

Description: four circles will be drawn on the playground using chalk with the diameter of a footstep, keeping some distance between them. Every child had the role of a squirrel and is placed in one circle, one of them holding the ball. The first squirrel throws the ball in the air so that the ball will land in the second circle. The squirrel has to run quickly to the second circle so that the ball does not touch the ground. Then, the child goes back to the first circle and throws the ball to the third one the same way and then to the fourth circle.

Methodic indications: the one who catches the ball in every circle without letting it touch the ground wins.

Options: the ball can also be placed on the left.

b) „Catch and throw”



Fig. 11. – „Catch and throw” game (Macra-Oșorhean et al., 2014)

The correction and educational part: coordination of both hands, locomotion, self-control, balance, movement rhythm, mobility, relaxation, developing a sensibility towards the others' needs.

What is needed: playground, ball, whistle.

Description: the players are set in pairs. Every pair has a ball which is held by one of the players with both hands at the waist line. At the signal, the child had to beat the ball to the ground, catch it then throw it to the child in front of him who has to do the same thing. During the game the children can sing the following saying: “Ball with many colors/ You run and jump and fly/ Ball, you want to play/ I just can't catch you at all!”.

Methodic indications: the pair which drops the ball multiple times is penalized by a number.

Options: The game can be played without forming pairs.

c) „Ball through the tunnel”



Fig. 12. – „Ball through the tunnel” game (Macra-Oșorhean et al., 2014)

The correction and educational part: moving coordination, stimulating the muscular system, orientation.

What is needed: playground, ball.

Description: the players will align in a row, one behind the other with their legs spread, forming a tunnel. The first player has a ball in his hand. At the signal, the first player throws the ball through the tunnel towards the last player. He catches the ball, runs on the right side of the tunnel and sits in front of the first child then throws the ball through the tunnel. The game ends when the first player arrives back in the front of the row.

Methodic indications: the one who doesn't drop the ball wins.

Options: depending on their number, the players can form two teams.

Conclusions

After consulting some game books and speciality work, followed by adapting, applying and testing the games on the students from the School Centre for Inclusive Education, Cluj-Napoca, 12 movement games have been selected for developing motion skills for children with special educational needs.

The game is essential and is a benefit-source which no other activity can replace. This way, playing games can assure a better child behavior and helps him control his own emotions, which is an important detail in life. The game involves moving, and moving means health, also this activity is beneficial for mental development, and in addition, a great part of knowledge is better understood through playing games. The child who plays is happy, optimistic. Moreover, the game develops will, stimulates ambition and the wish of participating in activities during the school program. The child who plays does not feel alone, he understands what freedom and the joy of living are.

Building a relaxing and friendly atmosphere, favourable for creating social relationships, contributes at optimally realizing the proposed activities. Equally, using the proper teaching methods and procedures for each student's needs and particularities, the selection of activities according to the student's learning and understanding capacities also contribute in reaching the goals.

Daily applied in the physical activities of the children, the movement games are considered by specialists to be very important when it comes to the formation and the education of the students. The participants start using their movements, consciously moving their body, preparing this way for work and life.

Motion games are also efficient in progressing locomotion and in developing communication skills. The activities that include movement games can be applied to other subjects as well.

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OXIDANT/ANTIOXIDANT TISSUE BALANCE IN CARNITINE SUPPLEMENTED RATS EXPOSED TO CHRONIC HYPOTHERMIC AND ANAKINETIC STRESS

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ABSTRACT. *Background.* Hypothermia and immobilization are commonly used methods in laboratory stress testing. *Aims.* The study evaluated the effects of chronic hypothermic (5° C) and restraint stress in liver and muscle oxidant/antioxidant balance, on rats with and without carnitine supplementation. *Material and methods.* The study was made on four groups of male rats, adult (n = 10 animals / group) Wistar breed, for 15 days): group I- exposed to hypothermic stress (5° C), group II-exposed to anakinetic stress, group III- exposed to combined stress (hypothermic - 5° C - and anakinetic stress), group IV-supplemented with carnitine and exposed to combined stress. Tissues samples (liver and muscle) were used to determine the level and activity of the oxidative stress (OS) indicators - malondialdehyde (MDA), carbonilated proteins (CP) and antioxidant (AO) system –hydrogen donors capacity (HD), thiol groups (SH), reduced glutathione (GSH). *Results.* The statistical analysis, performed on the 4 groups, revealed that chronic combined stress induced significant increases for liver and muscle MDA, and decreases for liver SH and muscle GSH, as compared to chronic hypothermic stress. Regarding chronic combined stress, there were significant increases for MDA, and decreases for GSH, in liver and muscle, as compared to chronic anakinetic stress. Carnitine supplementation in chronic combined stress conditions (group IV) induced significant changes by diminishing the liver and muscle MDA levels; liver PC levels, and increasing the DH and SH liver and muscle groups, muscle GSH groups as compared to combined stress group (III). *Conclusions.* Our experimental results show that chronic combined stress (hypothermic and anakinetic stress) increases the oxidative stress (OS) indicators and decreases those of antioxidant (AO) defense in the studied tissues, as compared to chronic hypothermic and anakinetic stress) Carnitine supplementation in chronic combined stress conditions had benefic effects by diminishing the OS indicators and by increasing the AO defense, in liver and muscle tissue.

Keywords: *chronic combined stress, hypothermic stress, anakinetic stress, carnitine, muscle, liver, oxidants/antioxidants balance*

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REZUMAT. Balanța tisulară oxidanți/antioxidanți la șobolanii suplimentați cu carnitină, expuși stresului cronic hipotermic și anakinetic. *Premize.* Hipotermia și imobilizarea sunt metode frecvent utilizate în provocarea stresului experimental. *Obiective.* S-au urmărit efectele stresului combinat cronic (hipotermic și anakinetic) asupra balanței oxidanți/antioxidanți la nivel tisular (hepatic și muscular), la animale cu și fără suplimentare de carnitină. *Material și metodă.* Cercetările au fost efectuate pe patru loturi de șobolani masculi, adulți (n=10 animale /lot) rasa Wistar, timp de 15 zile: lotul I- supus stresului hipotermic (5° C), lotul II -supus stresului de imobilizare (anakinetic), lotul III – supus stresului combinat (hipotermic - și stresului anakinetic), lotul IV – suplimentat cu carnitină și supus stresului combinat. Indicatorii balanței O/AO au fost evaluați prin metode biochimice de dozare din țesuturile hepatic și muscular. *Rezultate.* Stresul combinat cronic determină, față de stresul hipotermic cronic, la nivel hepatic și muscular, creșteri semnificative statistic ale MDA, scăderi semnificative statistic ale SH la nivel hepatic și GSH la nivel muscular, iar față de stresul anakinetic cronic, determină creșteri semnificative la nivel hepatic și muscular ale MDA, și scăderi semnificative ale GSH. Suplimentarea cu carnitină și stresul combinat cronic determină, față de stresul combinat cronic, scăderi semnificative ale MDA în mușchi, ale PC în ficat, și creșteri semnificative statistic ale DH și SH, în ficat și mușchi, și GSH în mușchi. *Concluzii.* Stresul cronic combinat – anakinetic și hipotermic – determină creșteri semnificative ale SO și scăderi semnificative ale apărării AO, față de stresul cronic anakinetic și stresul cronic hipotermic, în țesuturile studiate (hepatic și muscular). Suplimentarea cu carnitină, la lotul supus stresului combinat cronic, a avut efecte protectoare, manifestate la nivel tisular prin scăderea SO și creșterea indicatorilor AO.

Cuvinte cheie: stres cronic combinat, stres hipotermic și anakinetic, țesut muscular, țesut hepatic, balanța oxidanți/antioxidanți, carnitină.

Introduction

Reactive oxygen species (ROS) and reactive nitrogen species (RNS) are produced by cellular metabolism. They play important roles in regulation of cell survival. ROS and RNS may have both beneficial and harmful effects on living systems. The beneficial effects of ROS occur at low/ moderate concentrations and involve physiological cellular response to injury (eg defense mechanism against infectious agents) or mitogenic response. Severe increase of ROS/RNS can induce cell death.

Reactive species (RS) side effects', with possible biological damage, is called oxidative (OS) or nitrosative (NS) stress.

The effect can be seen when, on one hand there is a hyperproduction of oxygen and nitrogen species (RONS) and, on the other hand, there is a lack of enzymatic and non-enzyme antioxidant (AO) system. ROS, adversely, alter lipids, proteins, and DNA and trigger a number of human diseases (Burta et al, 2003; Ji et al, 1998).

Thus, the OS is involved in a variety of pathological conditions, as well as physiological processes (stress, pregnancy, aging).

Under physiologic conditions, the balance between generation and elimination of ROS/RNS maintains the proper function of redox-sensitive signaling proteins. Normally, the redox homeostasis ensures that cells respond properly to endogenous and exogenous stimuli. However, when the redox homeostasis is disturbed, oxidative stress may lead to aberrant cell death and contribute to disease development. (Trachootham et al, 2008; Valko et al, 2007; Dröge, 2002).

Carnitine is a quaternary ammonium compound, biosynthesised mainly in the liver and kidney, from the amino acids lysine and methionine. The total level of carnitine in the body was estimated to be around 20 g, or 120 mmol.

Most studies, developed on humans, failed to demonstrate the increase in muscle carnitine levels, either by oral administration (because of low systemic bioavailability of the pharmaceutical product, 5-15%) or intravenously (carnitine transporters being considered the limiting factors).

Thus, due to its' low oral bioavailability and significant urinary loss after administration, high doses should be administered for longer periods of time, in order to influence muscle carnitine storage in healthy subjects..

There is scientific evidence, that exogenous carnitine can influence muscle total carnitine content, but without well established functional consequences (Brass, 1995; Brass, 2000; Scholte, 2003; Stephens et al, 2007).

However, carnitine supplementation in animals turned out to have beneficial effects on the muscles carnitine content, by intragastric administration, both in sedentary and trained rats, as well as in horses (Bacurau et al, 2003).

Hypothesis

The study evaluated the effects of cronic hypothermic (5° C) and restraint stress in tissue (liver and muscle) oxidant/antioxidant balance, on rats with and without carnitine supplementation.

Materials and methods

The study was performed on adult male rats, Wistar breed, at the Department of Physiology from UMF "Iuliu Hațieganu", Cluj-Napoca, in the Laboratory of Experimental Physiology. The animal tests and experiments were allowed by the Bioethical Board of the UMF "Iuliu Hațieganu", Cluj-Napoca. The animals were caged in polycarbonate cages, at controlled temperature of 21-22°C, humidity (40-60%) and 12/12h light/dark cycle. Standard lab chow, and water were freely available.

Rats were divided randomly into four groups of ten rats each: I - hypothermic stress (5° C), II- anakinetic stress, III - exposed to combined stress (hypothermic - 5° C - and anakinetic stress), IV- supplemented with carnitine and exposed to combined stress.

Chronic cold stress was applied to the animals for 3 hours daily, 15 days long. The rats were placed in a cold room (ambient temperature 5°C), according to the literature data.

Chronic immobilization stress was applied to the animals for 3 hours daily, for 15 days long, according to the literature data. Immobilization stress was applied to the animals by using cylindrical tubes with dimensions of 15 cms long and 8 cms in diameter, containing numerous perforations which served as breathing holes.

The animals were daily supplemented with L-Carnitine by oropharyngeal gavage, before exposure to stress, (Carnil 100 mg/ml, provided by Anfarm Hellas S.A. Pharmaceutical Industry Factory, Athens, Greece). Each animal received 100 mg/kgc L-Carnitine, calculated according to daily dosage for humans.

a) *Methods*

At the end of the experimental period, blood was collected from the retro orbitary sinus, Euthanasia was induced according to the recommendation of the Bioethical Board of the University.

Tissues were minced and homogenized and the supernatant was used to determine the level and activity of the oxidative stress (OS) indicators – MDA (Conti, 1991), PC (Reznick *and* Packer, 1994) and antioxidant (AO) system – DH (Janaszewska *and* Bartosz, 2002), SH (Hu, 1994), GSH (Hu, 1994).

b) *Statistical analysis.*

All data are reported as the mean \pm SD. Statistical analyses were performed by one-way analysis of variance ANOVA, followed by post hoc Tukey's range test procedure, for pair-wise comparisons. Pearson's correlation was the

test of choice, in order to assess the correlation between normally distributed variables. Statistical significance was at $p < 0.05$. Statistical values were obtained using GraphPad Prism 5.0 software and Microsoft EXCEL.

Results

- a) Statistical indicators and comparative analysis for OS/AO tissue indicators are presented in table I and II.

Table I

Statistical indicators for centrality and dispersion in liver

Group	MDA (nmol/mg prot)		PC (nmol/mg prot)		DH (%inhibiție)		SH (μ mol/mg prot)		GSH (nmol/mg prot)	
	MA	\pm DS	MA	\pm DS	MA	\pm DS	MA	\pm DS	MA	\pm DS
I	0,141	0,010	5,27	0,58	4,42	0,50	0,035	0,0033	3,85	0,29
II	0,145	0,010	5,39	0,52	3,81	0,30	0,025	0,0015	3,95	0,38
III	0,172 ^{a,b}	0,016	4,93	0,51	4,21	0,33	0,020 ^a	0,0055	3,40 ^b	0,30
IV	0,15 ^c	0,015	3,96 ^c	0,37	5,05 ^c	0,48	0,041 ^c	0,0050	3,54	0,33

Note: (I) hypothermic stress, (II) anakinetic stress, (III) exposed to combined stress (hypothermic and anakinetic stress), (IV) supplemented with carnitine and exposed to combined stress.

ANOVA test, $p < 0.05$. a= III vs I; b=III vs II; c=IV vs III;

Table II

Statistical indicators for centrality and dispersion in muscle

Group	MDA (nmol/mg prot)		PC (nmol/mg prot)		DH (%inhibiție)		SH (μ mol/mg prot)		GSH (nmol/mg prot)	
	MA	\pm DS	MA	\pm DS	MA	\pm DS	MA	\pm DS	MA	\pm DS
I	0,89	0,088	5,62	0,30	11,31	0,86	0,018	0,0039	1,51	0,13
II	0,70	0,034	4,66	0,56	12,34	1,38	0,016	0,0024	1,85	0,17
III	1,072 ^{a,b}	0,098	5,26	0,48	10,87	1,11	0,013	0,0044	1,13 ^{a,b}	0,10
IV	0,74 ^c	0,097	5,16	0,69	30,55 ^c	3,10	0,025 ^c	0,0022	2,09 ^c	0,20

Note: (I) hypothermic stress, (II) anakinetic stress, (III) exposed to combined stress (hypothermic and anakinetic stress), (IV) supplemented with carnitine and exposed to combined stress.

ANOVA test, $p < 0.05$. a= III vs I; b=III vs II; c=IV vs III;

Liver and muscle tissue MDA increased significantly in group III (exposed to combined stress) as compared to group I (exposed to hypothermic stress) In group IV (supplemented with carnitine and subjected to combined stress) MDA levels were statistically reduced as compared to group III (Table I, II).

In group IV (supplemented with carnitine and exposed to combined stress) there was a significant decrease of liver CP as compared to group III (Table I).

The statistical analysis, performed on the 4 groups, revealed that chronic combined stress (group III) induced no significant changes for liver and muscle HD as compared to hypothermic stress (group I) and anakinetic stress (group II). (Table I, II).

In group IV (supplemented with carnitine and subjected to combined stress) liver and muscle HD levels were statistically increased as compared to group III (Table I, II).

Liver SH decreased significantly in group III (combined stress) as compared to group I (hypothermic stress). In group IV (supplemented with carnitine and exposed to combined stress), liver and muscle SH levels increased statistically significant as compared to group III (Table I, II).

Liver GSH decreased statistically significant in group III (combined stress) as compared to group II (stress anakinetic). In group III, muscle GSH levels were statistically reduced as compared to group I and II. (Table I, II).

In group IV (supplemented with carnitine and exposed to combined stress) muscle GSH levels were statistically significant elevated as compared to group III (Table II).

b) Correlation indicators for OS/AO balance in tissues, of the studied groups are presented in table III and IV

Table III

Correlation indicators for OS/AO balance in liver, at the end of the experiment

Parameters		Pearson Correlation Coefficient	p	Parameters		Pearson Correlation Coefficient	p
MDA	CP	-0,06*	0,75	CP	HD	-0,59***	0,001
MDA	HD	0,03*	0,85	CP	SH	-0,47**	0,01
MDA	SH	-0,33**	0,10	CP	GSH	0,32**	0,12
MDA	GSH	-0,43**	0,03	HD	SH	0,59***	0,02
SH	GSH	0,07*	0,74	HD	GSH	-0,20*	0,33

* weak correlation, ** acceptable correlation, ***good correlation, **** very good correlation (Colton Scale)

There were negative significant correlations between liver OS and liver AO defense indicators (MDA/GSH; CP/HD,SH). The liver AO defense indicators (HD and SH) showed a positive correlation (Table III).

Table IV

Correlation indicators for OS/AO balance in muscle, at the end of the experiment

Parameters		Pearson Correlation Coefficient	p	Parameters		Pearson Correlation Coefficient	p
MDA	CP	0,30**	0,14	PC	DH	0,004*	0,98
MDA	HD	-0,39**	0,055	PC	SH	0,16*	0,44
MDA	SH	-0,40**	0,052	PC	GSH	-0,32**	0,12
MDA	GSH	-0,75***	<0,0001	DH	SH	0,72***	<0,0001
SH	GSH	0,61***	<0,001	DH	GSH	0,68***	<0,0001

* weak correlation,** acceptable correlation,***good correlation, **** very good correlation (Colton Scale)

There were negative correlations between the muscle OS and AO defense indicators (MDA/GSH),but positive ones between AO defense indicators (DH/SH,GSH) (Table IV).

Discussions

Stressors may induce different effects on liver tissue (Zlatković and Filipović, 2011).

Some authors revealed enhanced lipid peroxidation in liver, muscle (Ates et al, 2006; Venditti et al, 2004) and striatum (Méndez-Cuesta, 2011), but diminished tissue AO defense activity (Saggu and Kumar, 2008; Ates et al, 2006) under conditions of acute exposure to combined stress – hypothermic and anakinetic, whereas other authors showed intense AO enzymatic activity in hepatic tissue (Popovic et al, 2009).

Other studies evidenced no changes in liver AO enzyme activity (CAT, SOD, GPx) in animals exposed to acute hypothermic stress (Alva et al,2009). Acute hypothermia, followed by severe hypoxia in rats, induced favorable effect on OS parameters, which values were closed to the control groups' (Alva et al, 2010).

Acute anakinetic or hypothermic stress, followed by social isolation chronic stress, induced different changes on liver CuZnSOD activity, either by increasing the nuclear fraction or the cytosolic one.

Combined chronic stress induces in rats, increased levels of kidney and heart CP, liver, kidney and heart TBARS, liver and kidney CuZnSOD enzyme, heart and kidney CAT, liver and heart GSH-PX Se and decreased levels of heart GSH and liver CAT (Şahin, 2007).

Chronic stress and high levels of glucocorticoids increase ROS and influence the processes, these are involved in.

Thus, some authors showed similar effects of both immobilization stress and corticoids administration in rats, such as increased lipid peroxidation and decreased AO activity in brain, liver and heart (Zafir and Banu, 2009).

Immobilization and intense physical training, experimentally induced on animals, have shown increased oxidation in muscle proteins, a process that could be alleviated by E vitamin administration (Bar-Shaia et al, 2008).

Carnitine supplementation in rats exposed to acute combined stress , reduced lipid peroxidation and increased CAT activity in gastric mucosa (İzgüt-Uysalet and Deri, 2001; Izgüt-Uysal et al, 2001).

Seven days of carnitine oropharyngeal gavage administration improved AO non-enzymatic activity (increased GSH) and attenuated the increase of renal tissue MDA, in rats exposed to intense exercise (Bucioli et al, 2012).

The results of our research study are similar to those presented by other authors Şahin, 2007; Venditti et al, 2004; Zafir and Banu, 2009).

Conclusions

1. Chronic combined stress induces significant increases in liver and muscle MDA, but significant decreases in liver SH and muscle GSH, as compared to hypothermic stress.

2. Chronic combined stress induces significant increases in MDA and significant decreases in GSH both in liver and muscle, as compared to anakinetic stress.

3. Carnitine supplementation and chronic combined stress induces significant decreases in liver and muscle MDA, liver CP, but significant increases in liver and muscle DH and SH, muscle GSH.

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NAGE NO KATA IN THE CURRENT COMPETITIVE JUDO

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ABSTRACT. In the context of current judo coaches focus on exceptional tactical and physical training, but omit one of the main aspects in full and complete fighting techniques, namely Kata. Approaching strictly *shiai* techniques has many negative results. From small or large accidents to abandon sports activity, capping being the main cause. In recent years Japanese judo school has addressed Kata with great seriousness as a form of technical training. Taking the example of *Kodokan Judo*, federations around the world have begun to pay increasingly higher importance to Kata, which led to organizing national, continental and world championships. In Romania, Kata is practiced at a high level also. Our athletes, couple *Surlă* and *Fleis*, trained by the reputed professor *Alexandru Chirila* (5 Dan) won all European and World Championship titles in the last six years. Sports Club "*University Dinamo Cluj*" coach - assist. univ. dr. *Barboș Ion Petre* (2 Dan) has achieved remarkable results in the past three years (2010-2013) at the national level, with over 10 medals (gold, silver and bronze) won by athletes at *Nage no Kata*, *Katame no Kata*, *Ju no Kata*, *Kodokan Goshin Jutsu*. This article attempts to highlight the overwhelming importance of addressing *Kata judo* in training juniors, seniors and veterans judo athletes.

Keywords: *Judo shiai, kata, Nage no Kata, kyu, Shisei, shizentai, jigotai, Ma ai, Kodokan Judo Kata Kum, Kasumi, Mae-Mawar-sabaki*

REZUMAT. *Kata în Judo competițional actual.* În contextul judo-ului actual antrenorii pun accent pe pregătirea tactică și fizică de excepție, dar omit unul dintre principalele aspecte ale realizării depline și complete a unei tehnici de luptă, și anume, *Kata*. Abordarea strict doar a tehnicilor de *shiai* are numeroase rezultate negative, de la mici sau mari accidentări până la abandonul activității sportive, având ca principală motivație, plafonarea. Școala japoneză de judo a abordat în ultimii ani cu mare seriozitate *Kata*, ca formă de pregătire tehnică. Preluând exemplul *Kodokan Judo*, federațiile din întreaga lume au început să acorde o importanță din ce în ce mai mare acestui model (*Kata*), ceea ce a dus la organizarea de campionate naționale, continentale și mondiale. Și în România *Kata* este practicat la un nivel superior. Sportivii noștri, cuplul *Surlă* și *Fleis*,

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antrenați de reputatul profesor Alexandru Chirilă (5 Dan) au obținut toate titlurile de campioni europeni și mondiali din ultimii 6 ani. La clubul sportiv "Universitatea-Dinamo Cluj", antrenor - asist. univ. dr. Barboș Ion-Petre (2 Dan), s-au obținut rezultate remarcabile în ultimii trei ani (2010-2013) la nivel național, prin cele peste 10 medalii (aur, argint și bronz) câștigate de sportivii prezenți la *Nage no Kata*, *Katame no Kata*, *Ju no Kata*, *Kodokan Goshin Jutsu*. Acest articol încearcă să evidențieze importanța covârșitoare a abordării Kata în pregătirea sportivilor judoka juniori, seniori și veterani.

Cuvinte cheie: *Judo shiai, kata, Nage no Kata, kyu, Shisei, shizentai, jigotai, Ma ai, Kodokan Judo Kata Kum, Kasumi, Mae-Mawar-sabaki*

Introduction

One of the most common questions of current judo is "With what technique should start a beginner?" Many researchers have raised arguments pro and cons the hazard that may occur in premature approach of some of the fighting techniques (Gleeson, G. R., 1957).

Even the Japanese, "the parents" of judo have made mistakes approaching techniques, apparently simple, which proved to be not only dangerous, but also deadly. In 2013 *Kodokan Judo* was sued by an organization of parents who have lost children due to fatal accidents in judo halls. Coaches have used *Ashi* (foot) techniques and practitioners have fallen on head on the mat and made cerebral concussion (*Ryo Uchida, 2010*).

The Federations around the world have proposed a number of techniques (40) to be gradually approached, having different levels of difficulty (www.judoinfo.com). But coaches are still facing the same question, because the very busy competitive schedule does not allow them to wait nearly three years of preparation for completing the 5 Kyu (classes), which would allow, in theory, a judoka to accumulate a number of sufficient techniques to be successful at national championship contests.

A solution can be *Nage no Kata*, the three forms (Te-waza, Koshi-waza, Ashi-waza), not only for the advanced level, but for the beginner also.

Principle of judo in Kata versus Shiai

Is it possible that *Nage no Kata* to be taught at the beginner level? Obviously giving consideration to the falls school (*ukemi-waza*). *Nage no Kata* addresses from the beginning very carefully the principles of judo.

Shisei - Body attitude

The body position is the beginning and the end of a fight. Depending on how judoka is positioned in front of the opponent, may or may not, execute a technique. *Nage no Kata* has two positions, two attitudes that we can also find in *shiai* (contest) (Inogai, T., Habersetzer R, 1998):

1. *Shizentai* - natural position
2. *Jigotai* - defensive position

In *Shizentai* judoka is in a waiting attitude, peace and tranquillity, when the danger is not present.

In *Jigotai* judoka enters in preparation for battle. The legs are opened apart for a better balance. It is moment when the mind and body of judoka is on alert.

These two elements are at the beginning of a *shiai* when both judoka are facing *tatami* (mat) waiting for the entry and greeting, the moment of the attack.

In *Nage no Kata* we find these two positions at the beginning and the end of *Kata*.

The importance of positions (Kazuzo Kudo, *Dynamic Judo*, 1967) – By the body attitude judoka secures himself a stable position and he can execute the technique in equilibrium.

Ma-ai - fighting distance

A technique can be done properly only if an optimal distance of action. The fact that a judoka has the physical qualities necessary to throw an opponent on the mat does not provide the safety of success when fighting with a partner that takes account of distance (*ma-ai*).

Koshi techniques (hip) will be executed mostly at small and very short distances (*chikama*), while *Te* (arm) techniques will be executed at long distances, and the *Ashi* (foot) ones only on the displacement and at small and medium distances, with a few exceptions.

Nage no Kata gives the distance between the two judoka highest importance. The two are in a continuous and permanent "fight" to keep optimal distance. While Uke is trying unbalance backward or forward, right or left, Tori withdraws or move forward to get Uke out of his balance. (*Kano, Jigoro - Kodokan Judo*, 2013).

If *shiai* allows static moments, *Nage no Kata* cannot accept stop moving. The two judokas are perfect harmony regarding both, distance and displacement.

Kumi Kata - Grip

Nage no Kata preserves classic *Kumi Kata* from times of the master Jigoro Kano, during which the sleeves (*sode*) of kimono were long only to the elbows. The grip was done by hand directly on the arm of partner (*Scott, S., 2011*).

Shintai – The moving

The current judo competition almost eliminated movements, preferring static positions. Traditional Judo is based on movement, so all the techniques of *Nage no Kata* are executed on movement. No matter which of the two forms we refer *shiai* or *kata*, movements are either *ayumi ashi* (moving with normal step) or *Tsugi ashi* (moving with added step). The directions are forward, backward, left side and right side.

Shintai seeks to break Uke's balance while Tori is at a good enough distance (*ma-ai*) to perform the technique.

Ikioi - Momentum

It refers to time that Uke initiates the attack, the moving and the gripping. To perform an attack, Uke makes use of force which Tori, by sensing *Kasumi* (the time) returns it in favour of him. *Ikioi* is the most often used in *shiai* and represents the moment when one of the combatants attacks to recover the time or the number of points. It is chaotic, uncontrolled and rarely bring any positive result (Barbos, I.P., 2014).

The *Nage no Kata* we find *Ikioi* at Uke's attack with *shomen uchi* (strike with the fist from up to down) from *Te waza* and *Yoko Sutemi waza* (side sacrifice art).

Kasumi – The moment

The action time. If Tori does not feel the right moment to input technique, then the chance to throw becomes invalid. *Kasumi* is the time of initiation and execution of a technique and does not require a very large force (Barbos, I.P., 2014, p.25).

Tai sabaki – Turning the body

It is one of the most important principles of judo. It is "the beginning and the end of Judo²". *Shiai* ignore this important principle, which leads implicitly to hinder and delay in execution of a technique. *Nage no Kata* focuses on two major forms of *Tai Sabaki*:

1. *Mae- sabaki* – body pivoting forward (*Ippon-seoi nage*, *Tsuri-komi-goshi*, etc.)
2. *Yoko sabaki* - body pivoting sideways (*Uki Goshi*, *Harai Goshi*)

Kuzushi – Unbalancing

² These words were spoken by Japanese master *Kyuzo Mifune* (1883-1965) 10th Dan, and written in Mahito, O. (1972) - *Judo. Grundlagen-Methodik*, Falken-Ferlag. Niederhausen (n.a)

The execution of an unbalance is based on the principles listed above, to which are added the force (as a form of specific physical preparation). *Kuzushi* is actually what is seen from "outside", the physical side. It is getting Uke out of his balance, until he is brought the level where the two combatants forces equalize, allowing Tori to execute the technique more easily (Mahito, O., 1972).

Both the *Shiai* and *Nage no Kata* aim the unbalance to occur in the shortest time. In *Nage no Kata* is desired that it be enforced to maximum level that Uke can keep lowest balance. *Harai goshi* runs when Uke is heavily unbalanced toward his small toes fingers and he cannot perform any other step to rebalance (Sacripanti A, 1987).

Kuzushi involves bringing Uke in what the Japanese call "*Kuzure no Jota* ", which is *the state of unbalance*. Sometimes, as in the case of sacrifice techniques (*Sutemi-waza*) Tori is one who reaches for *Kuzure no Jota* while throwing Uke.

Conclusions

By analyzing the principles of judo listed above it is recommended to practice *Nage no Kata* at all levels of sports training. This will provide judoka the basis of technical training required in combat situations.

Nage no Kata offers injured athletes an alternative in their further sports activity. *Shiai* loses the "aesthetic quality" while the *Nage no Kata* may miss at first glance the energy consumed during *shiai*.

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RECENT JURIDICAL ASPECTS REGARDING THE SANCTION OF FISCAL EVASIONS AND MONEY LAUNDERING IN ROMANIAN FOOTBALL

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ABSTRACT. In contemporary society sport is considered a notable socio-economic, but also a normative phenomenon. However, the fulfilment of the rule of law in a constitutional state requires legal order – „namely the unity of law, effectively applied in the life of a community. In order for a legal system to work properly, it is necessary that all citizens obey the legal norms, and that all public officials regard these as the official standards of behaviour, following them rigorously” (Hart, H., L., A., 1963 as cited in Popa, N., 2008, p.87). It is well-known that not all social phenomena are also juridical in nature – however, the legal regulation of Sport already coexists with other norms and institutions of Law and, of course, it is an object of the sub-system of the science of Sport (seen as a branch of the educational system and of scientific research). Our assertions are supported by the following: the criterion upon which we categorise this notable social phenomenon as juridical is its own legality, which is obviously reflected at the legislative level. This paper presents recent developments in the phenomenon of criminality in Romanian football – sanctioned by Romanian Law Courts – a real step forward in the application of Law in the field of Sport.

Key words: *sport, legalisation of sport, criminality, fiscal evasions, money laundering, criminal liability*

REZUMAT. *Aspecte recente privind infraționalitatea în materia evaziunii fiscale și a spălării banilor în fotbalul din România.* În societatea contemporană, activitatea sportivă este considerată ca fiind un fenomen social-economic, dar și normativ, notabil. Pe de altă parte, activitatea de realizarea a dreptului vizează, într-un stat de drept, ordinea juridică - adică unitatea armonică a unor norme de drept, aplicată efectiv în viața unei colectivități. Pentru o bună funcționare a unui sistem legal este nevoie ca toți cetățenii să se supună normelor de drept, iar funcționarii să considere aceste reguli ca standarde oficiale de comportament, aplicându-le întocmai” (Hart, H., L., A., 1963 citat în Popa, N., 2008, p. 87).

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Este cunoscut faptul că nu toate fenomenele sociale sunt și juridice – dar, normativitatea juridică a sportului coexistă deja cu alte norme și instituții ale dreptului și, bineînțeles, este obiect a subsistemului științei dreptului (privită ca ramură a învățământului și a cercetării științifice). Motivăm afirmațiile noastre cu următoarele: criteriul pe baza căruia distingem acest fenomen social notabil ca fiind juridic este însăși juridicitatea sa care se reflectă vizibil pe plan normative. Lucrarea prezintă aspecte recente privind fenomenul de infrafracționalitate din fotbalul românesc – sancționate de instanțele de drept comun din România – un real demers al realizării dreptului în domeniul sportului și conex acestuia.

Cuvinte cheie: *sport, normativitatea sportului, infrafracționalitate, evaziune fiscală, spălare de bani, răspundere penală*

Introduction

Sport helps satisfy important requirements in society, such as: the need for physical activities, recreational activities and enjoyment, for the spectators as well as the athletes. Sport is already considered a social institution. (Voicu, A., V., 1999, p. 6) For those who haven't yet studied sport in depth, we mention that it has become a notable social-economic phenomenon that needs to be legalised in order to regulate properly the new sport-related professions that have emerged (Mureșan, M., *Afterword* to Voicu, A., V., 1999), and Sport Law is a branch of Law and a sub-branch of the sciences of Law and Sport (Voicu, A., V., Fildan, S., Voicu, B., I., 2009). We agree with the idea that turning Law into an instrument of politics can create a very real danger to the constitutional state – however the dangers that we face now (legislative inflation, the excess of normativism as a trend towards self-destruction, the possibility of separation and aggravation of the conflict between the values of public order and those of the constitutional state in the process of law enforcement) threaten the very existence of the state (Craiovan, I., 2009) and they must not be allowed to change the normative nature of law. Therefore Law, seen as a normative phenomenon must be involved in and help regulate such an ample social phenomenon like sport.

“Sport is a growing social and economic phenomenon which makes an important contribution to the European Union's strategic objectives of solidarity and prosperity. The Olympic ideal of developing sport to promote peace and understanding among nations and cultures as well as the education of young people was born in Europe and has been fostered by the International Olympic Committee and the European Olympic Committees. Sport attracts European citizens, with a majority of people taking part in sporting activities on a regular

basis. It generates important values such as team spirit, solidarity, tolerance and fair play, contributing to personal development and fulfilment. It promotes the active contribution of EU citizens to society and thereby helps to foster active citizenship. The Commission acknowledges the essential role of sport in European society, in particular when it needs to bring itself closer to citizens and to tackle issues that matter directly to them. However, sport is also confronted with new threats and challenges which have emerged in European society, such as commercial pressure, exploitation of young players, doping, racism, violence, corruption and money laundering.” (European Commission, 2008, Paragraphs 1-3).

Sport, according to this definition, must contribute to the well-being of individuals in a given society. Practising sport and being involved in sport-related activities, within the limits of the regulations, corresponds to the social purpose of sport. However we cannot deny that any social institution is interdependent on other similar institutions. Society and culture both influence sport. Sport can create substantial material assets. The positive values and outcomes of sport can be perceived in relation with the stated purpose of sport in society and, not least, the way we sanction the deviations from the moral and/or legal norms that regulate sport and activities related to it. The necessity of implementing legal norms in sport activities seems obvious: *no one is above the law*, no natural person, nor juridical persona, nor any field of activity, up to and including sport. It stands to reason that in implementing legal norms in sport and related activities the principle of *nemo censetur ignorare legem* must be obeyed, among others.

In order to prevent illicit behaviour and avoid paying compensation for patrimonial damage, to avoid generating legal liability, it is necessary to permanently update one's professional training which must include legal knowledge. This can be achieved through legal education provided by persons who are well acquainted with sport matters and taking into account that: “*The case law of the European courts and decisions of the European Commission show that the specificity of sport has been recognised and taken into account. They also provide guidance on how EU law applies to sport. In line with established case law, the specificity of sport will continue to be recognised, but it cannot be construed so as to justify a general exemption from the application of EU law.*” (European Commission, 2008, p.14)

Methods

Today, crime is the phenomenon that displays the greatest adaptability to the new socio-economic circumstances. In this way criminal activities taking diverse forms have managed to reach all fields of activity in all countries, regardless of their economic development.

One of the fields where criminal activities have managed to settle is Sport with all its related activities which, according to some estimations, accounts for approximately 0.5-3.7% of the European Union's GDP. (Financial Action Task Force - **FATF - GAFI**, 2007, p. 7) Generally, sports requires, besides the display of certain physical qualities during competitions, investments in appropriate buildings or locations, advertising, awards and rewards, the transfer of athletes, management – either institutionalised or not, governing bodies etc., without further discussing bets or bookmakers, all of which are running money. It is estimated that given the current status of sport, all types of sports are now likely to attract criminal activities, from the elegant chess game to the K1 fights. Among all sports however, it seems there is one that draws the most attention and which has become highly appealing to criminal minds: football – and the following data will support this assertion. Football appears to be the most important sport in the world; with 38.000.000 registered players and 5.000.000 referees and officials, 301.000 clubs, it is played all over the world and it is the most popular sport, having considerable support from the impressive number of fans that watch football games from the stadium bleachers or their homes (for instance, the 2006 FIFA World Cup Final had more than 1 billion TV viewers, a number that represents 15% of the world's population). The market for professional football has greatly increased in recent times, being characterised by an unprecedented globalisation, with transfers of players being completed all over the world and across it, entailing large cross-border money flows which were outside the control of national or international football organisations. In addition to this, there are many private investors who choose to invest in football clubs, and therefore create money flows. Also, the rights of broadcasting the football matches and the ticket sales generate large funds, all of these practically describing football as a global industry that is experiencing economic growth (Financial Action Task Force (**FATF - GAFI**), 2007, p. 8-9).

Of all the forms of criminal activities that are considered highly compatible with sport in general, we believe the most serious to be tax evasion (Drosu, D., Ș., Tutungiu, M., E. 2005, p. 7) which means evasion of taxes and duties and other fiscal obligations, and the world encompassing field of sports, with its current financial dimension creates the premises for easy tax evasion.

Money laundering is almost as serious or perhaps equally harmful as tax evasion. Regarding this form of criminal activity, we would like to draw attention to the fact that illicit commercial activities result in a huge profit, but due to the transactions being made almost exclusively in cash, in order to ensure the trust of the “business partners”, the resulting profit is also in cash. Without a doubt, part of the profit then returns to funding the illicit activity that generated it in the first place, but the rest remains in the possession of the criminals, who try to conceal the illegal source of their money, and this activity is known as money laundering. (Dicționarul Explicativ al Limbii Române, [Electronic version])

Taking all the above into account, mainly that criminal activities appear in every country without exception, we will discuss the recent decision of the Romanian law courts to sentence to prison to be executed in detention certain persons who are well-known in the world of sports, especially the king of sports – football. (File nr. 3134/3/2009* of the Court of Appeal of Bucharest, 2009)

By indictment the Prosecutor's Office attached to the High Court of Cassation and Justice – the National Anti-Corruption Department (Direcția Națională Anticorupție, 2008) sent to trial eight persons, owners and presidents of football clubs, impresarios and other employees of companies working in this field, who between 1999 – 2005 completed 12 transfers of Romanian football players from the clubs Dinamo Bucharest, Rapid Bucharest, Gloria Bistrita and Otelul Galati to foreign clubs, violating the Romanian legislation and thus causing a total loss of 4 113 648 RON for the Romanian state (USD 1 485 071.5 calculated at the average exchange rate for 1999 – 2005), USD 598 667 in damage of the Romanian Football Federation, USD 10 969 690 in damage of the football clubs Dinamo Bucharest, Rapid Bucharest, Otelul Galati and Gloria Bistrita.

The status quo that emerged from the evidence adduced at trial and was maintained by the indictment mentioned above shows that as president of the Rapid Bucharest Club, the defendant **Copos Gheorghe**, during the month of January 1999, presented a false transfer agreement for player Dulca Cristian with the value of USD 120 000, hiding the real contract that had a value of USD 600 000; also, the same defendant registered in his accounting records a transfer agreement worth USD 100 000 for the transfer of Bratu Florin, the real value of the contract being USD 2 750 000.

As president of the Football Department of the Otelul Galati Club, the defendant **Stoica Mihai** concealed the transfer agreement for player Arhire Iulian, worth USD 700 000, announcing that the value of the transfer was USD 150 000. The same defendant signed a Memorandum of Understanding through which he accepted the sale of the rights of transfer of player Cernat Florin to an off-shore company from Holland, which later caused prejudice to the Dinamo Bucharest Club.

In the case of transfers completed by the “Dinamo” Bucharest Club during 1999-2005, the defendants **Borcea Cristian, Becali Ioan și Becali Victor** declared diminished values for the transfers of football players Codrea Paul, Contra Cosmin, Cernat Florin, Mara Bogdan, Mitea Nicolae, Alexa Dan și Mihalcea Dumitru, taking money that rightfully belonged to the “Dinamo” Bucharest Club, according to law and sport regulations en force. The money that was kept from the Club was transferred to Ltd.-type companies in Holland (Phoenix BV, Intermark International, both located in Rotterdam, Van Duisboden BV, Pyralis from Amsterdam). All these companies were owned by a Dutch lawyer who kept

2% of each evaded sum and then transferred the money to the accounts of Tierney Int. Ltd., Star Advisors SA and Star Ventures SA, all based in the British Virgin Islands – a well-known tax haven for offshore companies. Later, the money was transferred to various banks in Europe (more specifically in Gibraltar, Luxembourg, Switzerland) and from there, from the personal account of the defendant Becali Ioan, the money was transferred to Romanian bank accounts belonging to Becali Victor. The latter carried out cash withdrawals from these accounts amounting to 4.5 million Euros.

According to evidence, the defendants Copos Gheorghe, Borcea Cristian, Becali Ioan și Becali Victor, Pădureanu Jean, Popescu Gheorghe și Nețoiu Gheorghe transferred parts of the money to each other's personal accounts, without providing valid justifications (fictional loans, “accidental bank transfers” – a concept that does not exist in banking).

Also, the defendant **Pădureanu Jean** acting as president of the Gloria Bistrita Club, at the request of the defendants Becali Ioan and Becali Victor, accepted the sale of two football players' transfer rights: Ganea Ionel and Sânmărtean Lucian to the Dutch companies Phoenix Ltd and Intermark Ltd. In this way, the transfer of Ganea Ionel, valued at USD 2 000 000 was diminished to the sum of USD 600 000 – the sum that was registered in the accounting records of Gloria Bistrita Club as the value of the transfer; and in the case of Sânmărtean Lucian, whose transfer was worth USD 600 000, the sum of USD 300 000 was falsely declared in the accounting records and the defendant received in his personal account the sum of USD 105 000 from Intermark Ltd. The defendant **Popescu Gheorghe** (at that time an employee of the company Becali Sport) also took part in the dirty transfer of Sânmărtean Lucian. **Popescu Gheorghe** transferred the money paid by the Panathinaikos Athens Club for the transfer to the account of Intermark Ltd, the Dutch company mentioned before. The same defendant, together with the defendants Copos Gheorghe and Becali Ioan, contributed to forging the amount of money received for the transfer of player Bratu Florin, cashing as a loan in the name of the company Becali Sport approximately USD 1 600 000 from the total value of the transfer, USD 2 750 000.

Not least, the defendant **Nețoiu Gheorghe**, signatory of the 2004 transfer of player Alexa Dan, requested that the Chinese Club Beijing Guoan pay 403 000 Euros from the total amount of the transfer (730 000 Euros) into the account of the Dutch company Pyralis Ltd. Through this financial manoeuvre the above mentioned defendant together with the defendants Borcea Cristian and Becali Ioan caused prejudice to the Dinamo Club, as the total amount of transfer payment that reached its account was only 327 000 Euros.

The charges brought against these defendants were: tax evasion offences under Article 12 of Law no 87/1994 (Law no 87/1994 for fighting tax evasion), money laundering offences under Article 29, Paragraph (1), Letter A and C of Law no 656/2002 (Law no 656/2002 on the prevention and sanction of money laundering) and fraud offences under Article 244, Paragraphs (1) and (2) of the Criminal Code. To understand the legal basis for the trial and the sentence, we will proceed to analyse the elements of the offence of tax evasion and of money laundering, without addressing the elements of fraud, which is a common criminal offence and exceeds the theme we intend to analyse.

According to Article 12 of Law no 87/1994 avoiding the payment of fiscal obligations, in whole or in part, through withholding information about taxable income, concealing the object or the source of taxable income, or performing any other operations for this purpose shall be punished with imprisonment from 2 to 7 years and the denial of certain rights.

Discussion

I. The literature on this subject (Vizitiu, Ghe., 2001, p. 81-88) that has been published after the entry into force of this law (Law no 87/2004 regarding the combat against tax evasion) shows that the active subject of the criminal offence is “**qualified**”, meaning that the person who commits the crime is a taxpayer subject to payment of fiscal obligations, and the passive subject is the state, which is prejudiced by the criminal offence.

Action or inaction as elements of the objective nature of this criminal offence consist of concealing taxable income, concealing the asset or the source of taxable income, or performing any other operations for the purpose of concealing the source of taxable income.

If by evasion we mean an activity through which a person avoids something, circumvents something (Dicționarul Explicativ al Limbii Române, [Electronic version]), the action of concealing income can consist of the action of partially declaring taxable income, or inaction or abstention from declaring the whole taxable income.

Concealing the object also regards the situation when owning the asset is subjected to taxes, such as customs clearance or owning vehicles; while the action of concealing implies taking measures to prevent the fiscal authorities from learning about the asset or the lucrative activities, either by physically hiding the asset or by dishonest tax reporting (not registering assets or activities in the accountancy records, or registering them under false names); in other words, hiding the value of the asset or the lucrative activity. Furthermore, it must be shown that concealing the taxable income source targets material assets or profitable activities.

Not least, we acknowledge that the performing any other operations with the purpose of concealing the taxable income source also regards the deliberate falsification of records.

In relation with guilt as an element of subjective nature we wish to show that the offence is committed with direct intent qualified by purpose, which consists in hiding the taxable income source, or, in the case of other means of committing the offence, indirect intent.

According to Article 29 of Law no 656/2002, the following are considered to be money laundering (sanctioned with imprisonment from 3 to 12 years):

a) the exchange or transfer of assets known to originate from criminal activity, with the purpose of concealing their illicit provenance, or in order to help the person who committed the crime to avoid prosecution, trial or the execution of the sentence;

b) concealing the true nature of the origin, location, disposition, circulation or ownership of the assets or the rights governing those assets, knowing that they are the product of criminal activity;

c) acquiring, owning or using assets knowing they come from criminal activity.

(2) Attempt is also sanctioned.

(3) If the act was committed by a legal person, in addition to the fine, the court shall apply, as appropriate, one or more of the additional penalties provided for in Article. 531 Paragraph (3) Letters A-C of the Criminal Code.

(4) Knowledge, intent or purpose required as elements of the facts set out in Paragraph (1) may be inferred from objective factual circumstances.

II. With reference to the offense of money laundering, we would like to point out, together with other authors (Hotca, M., A., Dobrinou, M., 2008), that the active subject is not qualified, and any natural person who meets the general conditions of the active subject of the offense can have this quality and that the main passive subject is the state, but the offense may have a secondary passive subject where a social value belonging to a particular person or entity is injured or threatened.

However, the objective side of the first version of money laundering can be achieved in two alternative ways, either through a change of real action or by action of transfer of assets. Change action means any activity by which the the replacement of assets coming from a criminal offense with another good legal origin. Transfer action is a transaction transferring the rights in an object derived from the commission of an offense by another person.

Action to hide or conceal the real criminal nature of the property, location, disposition, movement or ownership or rights over the ownership of the asset consists of masking the origin or his legal situation, usually through complex legal, economic or financial operations.

Finally, the third version of the crime may result in three alternative ways, namely: acquisition, possession or use of property, knowing that such property is derived from criminal activity. The action to acquire an asset derived from a criminal offence consists of the activity by which a person acquires ownership of an asset of criminal origin, action for possession of an asset of criminal nature consists of the possession of an asset that is derived from a criminal offence, and the action of using a good result from a crime means any activity that obtain benefits from its use.

Conclusions

To conclude, in review of the facts, which were probably retained by the court as well, based on the evidence (during research and the writing of this paper the motivation of the court's Decision was not yet disclosed), the law and the brief theoretical explanations, we might see the reasons behind conviction. Of course we could discuss several other aspects of criminal law here, such as the application of the most favorable criminal law, given that meanwhile the laws have changed, but perhaps that discussion is best left for another paper.

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LET'S TELL THE NUMBERS, LET'S TELL THE DATA'S; OR THE WOMEN'S CHANCE OF EQUAL OPPORTUNITY, IN THE SPORT DIPLOMACY AND IN THE SPORT LEADERSHIPS

MAGDOLNA TRENKA¹

ABSTRACT. Variable ratio system today one of the most important social issue of gender equality. Balance of power between the two gender can be one of the indicator that which role, what kind of opportunities, and which chance is given to women in leadership. May's interest turned to the issue : „the women equal opportunity problems in sport” when I was a student in the Hungarian University of Physical Education. I have researched this area for six years. My entire research aims to explore the facts, understand the processes, the structural and cultural special barriers there are before the women in the sport leadership. In the present study is a part of the entire research. In the present article I show the data's of the participation the female member and leader in the International Olympic Committee /IOC/ and their organisations; and naturally in the Hungarians Olympic Committees /MOB/ and in the Hungarian Sport Federations. To the entire research I used both of the quantitative and qualitative methods too. I indicated here, in this article I show only the result of the quantitative method. The quantitative method was statistical data collection these graphic processing which I present in this study. Result: the sport and the sport leadership is characterized by male dominance and the women are still underrepresented in the sport leadership; it was evidence based by graphs-data's. The conclusion: we can tell nowadays the inequality were extant de facto between women and men in the sport leadership.

Key word: *Equal opportunities/ and or equal rights, the women's participation in the decision making position, in the mirror of data statistics.*

Introduction

„The question of women's equal opportunities quite clearly a provocative and sensitive subject” (Habermann U. et al., 2005, p.190). The aim, of this recent study on the 'woman question' in sport, you want to draw your attention again,

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because it is necessary keeping on agenda, because of should be given many solving task ahead of us; for the chances that women can be equal-opportunities, after the formal law- equality too. In my hope, my entire research will serve this case. This article (and behind the full research) examines the current situation and recent trends as regards women's participation in decision-making position of sport leadership. It emphasises the importance of having more women in top positions in the sport leadership. In the ancient Olympic Games there were no women. In the beginning, the Olympics had to be reserved for men. It was

Coubertin's observation. But the time has changed a lot of, for nowadays. Today the discussion not about, whether women should be allowed to compete, but how women participate. And not only as athletes. But necessary examine what other capacities for ladies, as officials in international and national olympics movement, and in sport federations.

Object

I examine the participation of the female member and leader in the International Olympic Committee /IOC/ and their organisations; and in the national Olympic Committees of worldwide, and in a lot of international Sport Federations; at the end, naturally in the Hungarian Olympic Committees /MOB/ and the Hungarian (summer Olympic) Sport Federations or other a few sport organisations. I below show some data's, which account, identifies what's the women real situation in the olympic bodies, and other sport federations. The creating the equal opportunities for women, it should be the basic, should be the starting point.

Method

In my entire research, I used both of the quantitative and qualitative methods too. (I indicated here only, the qualitative methods of my work were: content analysis of the resources, and the critical discourse analysis - CDA, and the narrative interview, but this part of it in this article is not described.). In the present study I use the quantitative method: the statistical data collection, these graphic processing. It shows, what's the women real situation, nowadays in the sport leadership. I look for the answers, indeed so strongly is the female underrepresented, in the decision making position in the sport organisations, I analyse the data's and I draw down some conclusion from them. From the statistics evident, that reasonable and time able to increase the women's participations in the sport leadership.

Result

Now, tell the numbers!

1. Women representation in the mirror of numbers, in IOC.

First, a few data's from the past(from IOC in: ISM értesítő, 2000, p.69.). In the year 2000, from 113 member of IOC, were 14 women. (12,38%). In the IOC Committees and works-groups 237 person worked, in the year 2000, from it's 28 were women. (11,8%).

After twelve years later the women's rates increased a minimal, very small.

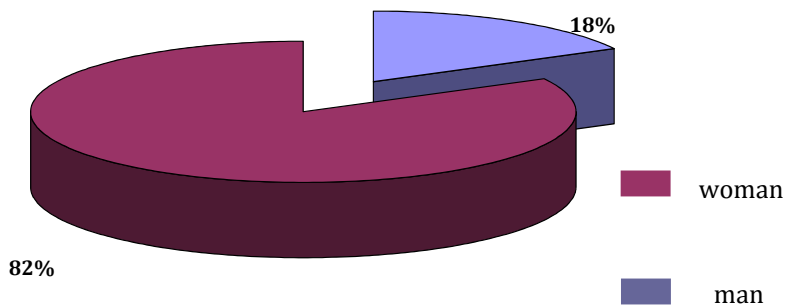


Figure 1. *The percent rates of women – man in assembly of IOC, in 2012.*

[Source: from Repertoire Directory 2012]

Also from a few data's from the past: in the IOC Presidency there were 15 person, from there is one women, in 2000 February. It means, the women participation in the presidency is 6,7 %. (from IOC, in: ISM értesítő, 2000, p.69.). The vice president was a lady, Ms. Gunilla LINDBERG.

After twelve years later the women's rates increased a little bit.

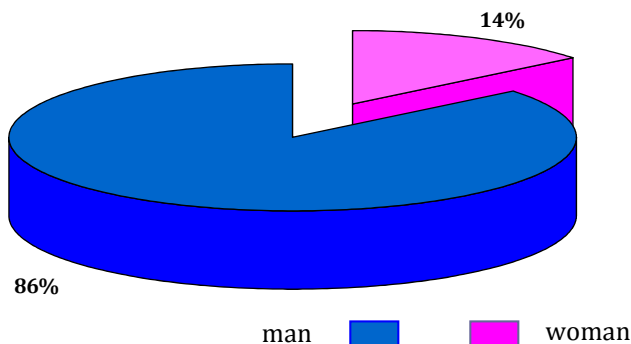


Figure 2. *The percent rates of women – man in the presidency of IOC, in 2012.*

[Source: from Repertoire Directory 2012]

The two graphs well indicates the disproportionatness, well shows how difficult the women's situation in the sportleadership.

The women's rates in the Committees of IOC. (from: Repertoire Directory 2007.)

Table 1.

The IOC Committees in the mirror of the statistic

Committee's name	Number of men	Number of women	Percent rates of women	Leader of the committee
Athletes C.	13	7	35 %	Man
Accreditation C.	4	2	33 %	Man
Budget C.	6	1	14,28 %	Man
Audit C.	3	No women		Man
Ethics C.	6	2	25 %	Man
Media rights C.	6	No women		Man
Law C.	6	1	14,28 %	Man
Marketing c.	19	2	9,5 %	Man
Medical c.	7	3	30 %	Man
Cultural C.	29	4	12,12%	Man
Traditional Keeping C.	9	No women		Man
Press C	21	2	8,7 %	Man
Broadcasting - Tv C	20	1	4,76 %	Man
International Connection C.	14	1	6,6 %	Man
Olympic Solidarity C.	11	3	21,4 %	Man
Sport and rights C.	7	1	12,5 %	Man
Sport and Environmental C.	16	No women		Man
Leisure C.	25	2	7,4 %	Man
Women and Sport C.	7	16	69,5 %	Women

2. Look, what is the situation, the other international sport organisation: in the national Olympic Committees all over the world, and in the international sport federations

You can see, how the female gender is -worldwide- underrepresented, in the principal sport organisation. You know, that many of the recommendations, proposal, -even expectations- has been formulated by IOC, to the national sport organisations; to change men's rights policies, promote more women to the decision making position; but these were not successful. The previous graphs well testify it.

IOC expected -in vain- different quotas, so for year 2005, 20% female quota in the leading bodies. These have -unfortunately- not been implemented.

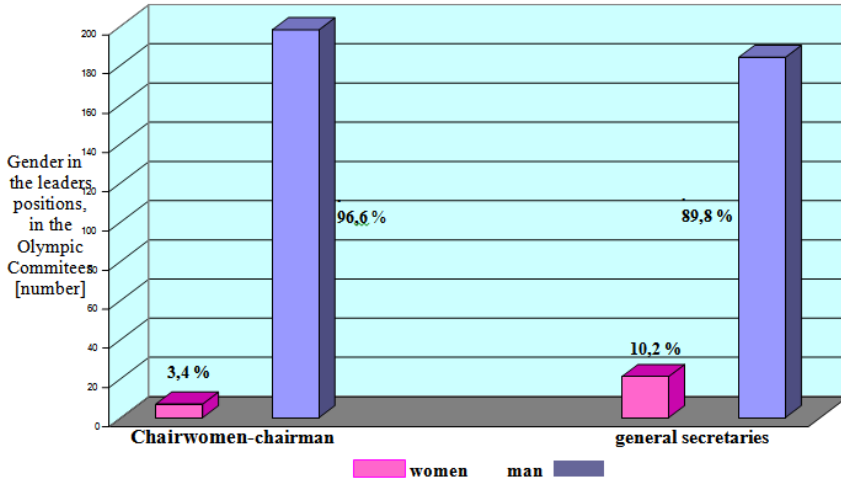


Figure 3. Women - men's, rate of the world's 205 national Olympic Committee leadership, in 2012.

[Source: from Répertoire Directory 2012.]

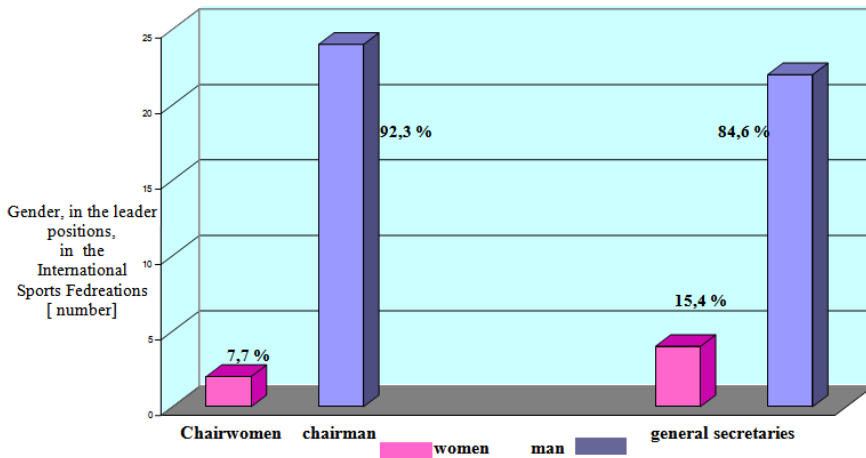


Figure 4. Women - man's rate in the [number 26] international (summer Olympic) Sports Federations in the leadership positions, in 2012.

[Source: from Répertoire Directory 2012]

3. Now, look for, what the situation is, in the Hungarien Olympic Committee /MOB/

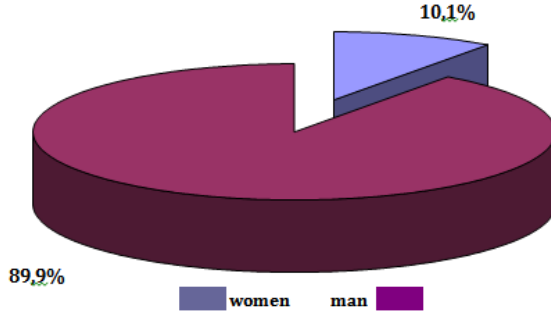


Figure 5. The rates of women- - man, in assembly of MOB, 2008-2012.

[Source: The official web site of MOB]

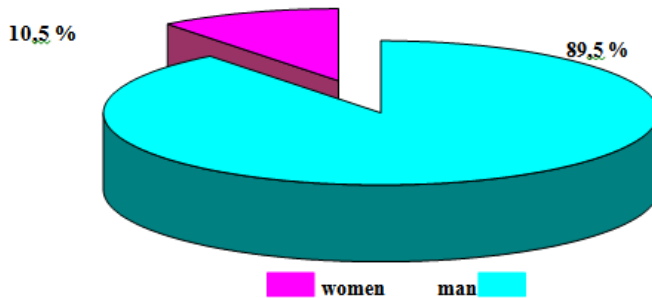


Figure 6. The rates of women - man in the presidency of MOB, 2008-2012.

[Source: The official web site of MOB]

The member of Presidency of MOB (2008 – 2012).

dr. Aján Tamás, dr. Bakonyi Tibor, dr. Berkes István, Borkai Zsolt, **Faragó Judit**, Gyárfás Tamás, Gyulay Zsolt, dr. Hegedűs Csaba, dr. Kamuti Jenő, dr. Konrád János, Kovács István, Kulcsár Győző, dr. Magyar Zoltán, Molnár Zoltán, **Regőczy Krisztina**, Schmitt Pál, dr. Schulek Ágoston, Sinka László, dr. Szabó Tamás.

In the presidency there were two ladies: **Regőczy Krisztina and Faragó Judit.**

THE PERMANENT COMMITTEES OF MOB (2008-2012)

Table 2.

The leaders of the Permanent Committees of MOB

Economic: Leader: dr. Bakonyi Tibor	Scientific: Leader: dr. Szabó Tamás
Medical: Leader: dr. Berkes István	Athletes: Leader: Kovács István
Environmental: Leader: Borkai Zsolt	Press: Leader: Gyárfás Tamás
Ethics and Fair Play: Leader: dr. Kamuti Jenő	Traditional Keeping: Leader: dr. Magyar Zoltán

You can see, there are not any female leader, in the committees forefront

All the Committees of MOB (2008-2012)

Table 3.

The Mob Committees in the Mirror of Data's

Committees name	Number of men	Number of women	Percent rates of women
Economical C.	17	No women	-
Medical C.	-	-	-
Environmental C.	6	2	25 %
Ethics and Fair Play	11	1	9,1 %
Scientific C	13	No women	-
Athletic C.	5	1	16,6 %
Press C.	17	No women	-
Traditional Keeping	9	1	10 %
Supervision C:	5	No women	-

I think, the former tables no need comment.

- In MOB there has Women Committee. The Women Committee members, in 2010.

The members are: Bán Teodóra, dr. Béres Klára, dr. Kaszó Klára, Faragó Judit, Géczy Erika, Jakabházyne Mező Mária, Kökény Bea, Havas Judit, Nagy Timea, Ránkyné Németh Angéla, Rejtő Ildikó, **Regőczy Krisztina** (the leader), dr. Simóka Bea, dr. Szabó Tünde, Szántó Éva.

The leader Krisztina Regőczy won silver medal in winter olympic games, in ice-dance. She was world champions too. /with Andras Sallai/.

The Women Committee hasn't male member. That's why arise a question: Why not?

I consider, (but don't want prejudice) it means the women committee is imponderable.

(As far as I know, in IOC Women Committee, has man member, especially, Hungarian man too.)

Here now call your attention to, MOB has new presidency from 2012 February.

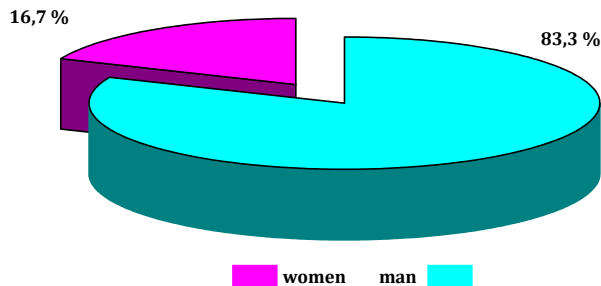


Figure 7. The rates of women- - man in the presidency of MOB, from 2012.

[Source: The official web site of MOB]

MOB new Presidency

Chairman: Borkai Zsolt. Vice chairman: dr. Magyar Zoltán, Gyulai Zsolt, **Monspart Sarolta**, dr. Leyer Richard, dr. Deusch Tamás. Ipso iure members: dr. Aján Tamás, Scmitt Pál, Dr. Kamuti Jenő. Members: dr. Csötönyi Sándor, Dávid Imre dr. Gémesi György, dr. Kovács Antal, **Regőczy Krisztina**, **dr. Szabó Tünde**, Szabó Bence (general secretary), dr. Tóth Miklós.

There are three ladies members. More then with one head, than the last presidency.

Comment: you should know, the position of five vice presidents, connection to a special sport -basic- leadership position, that's why not really choosing position, in the MOB presidency. The members are choose; by male dominated sport organisations. So it is not surprising that similar to similar - based on the principle-, more choose a man, as a woman.

MOB, accordingly their constitution(Constitution: III./ 6 § 7.), strive for the female-equal opportunities. But it seems this endeavour is not enough. This rule, an infinitely empty norm, there fore absolute inappropriate the creation, of women equality of opportunity. The women participation in the presidency 16,7%, nowadays. It means strong underrepresented the women, in MOB.

4. The rates of women-man in the presidency of the Hungarian National (Olympic) Sport Federations (in 2013)

The below figure speaks for itself. Amazing disproportion is between the number of male and female leaders management of sports organizations, described by the below graph.

And this principal sport organizations - showed below- have at least female leaders.

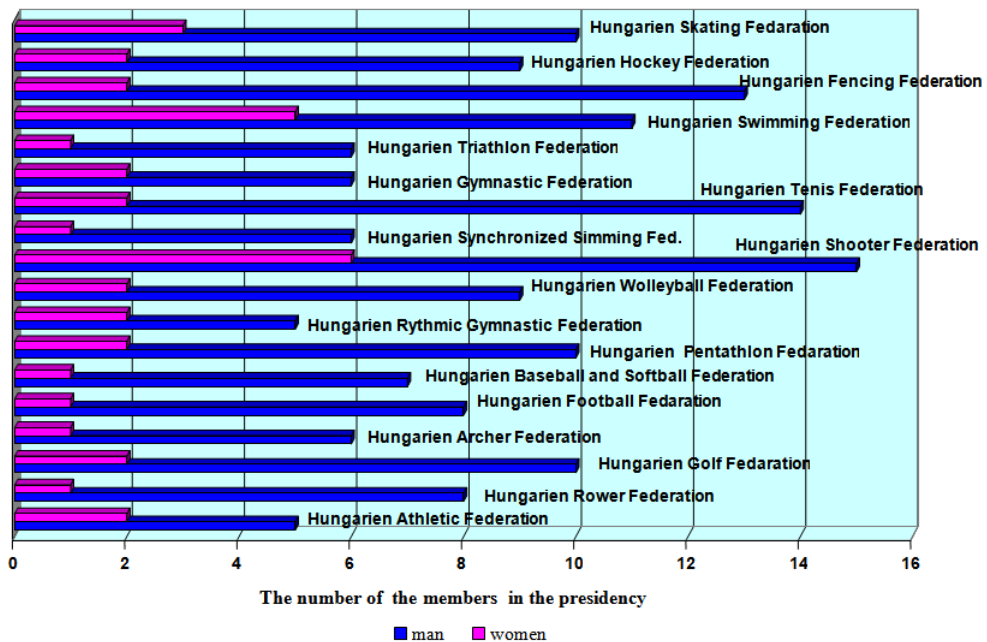


Figure 8. The rates of women- man in the presidency of the Hungarian (Olympic) Sport Federations, in 2013-ban. [where, there are any women in the presidency]

[Sources: the official web sites of the sports federations]

You should know, in Hungary there are 18 Olympic Sport Federations, there are absolutely no any women, in presidencies. It is very amazing! Presidencies of Hungarian National(summer Olympic) Sports Federations, where absolutely no woman are: wrestler, boxing, judo, water polo, kayak-canoeing, sailing, basketball, table tennis, weightlifting, badminton, handball, round a couple of sports, riding, surfing, curling, rugby, taekwondo, field hockey Federations.

5. The rates of women-man a few other Hungarian sport organisations; according to the following competitive research, between the year 2010, and 2014.

I look for, the women, in the leadership of four Hungarian sport organisations, there were:

- Sport Permanent Arbitral Tribunal,
- Hungarian Olympic Academy (MOA),
- Hungarian Coaching Association,
- Club of the Hungarian Olympic Champions.

The following two graphs well represents the gender proportions (or rather disproportionateness).

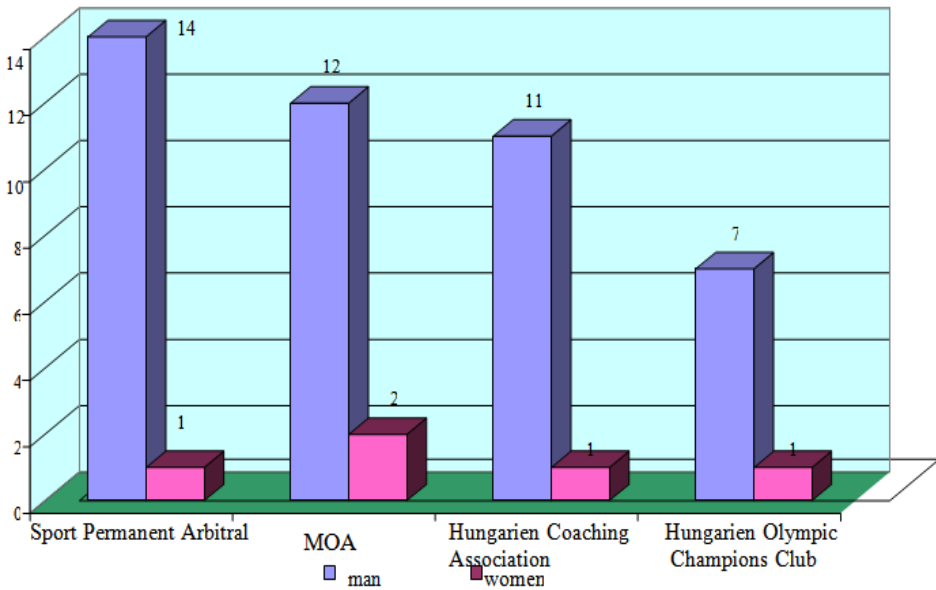


Figure 9. The rates of women – man in the presidency of four Hungarian sport organisations, in the year 2010.

[Source: The official web sites of the sport organisations]

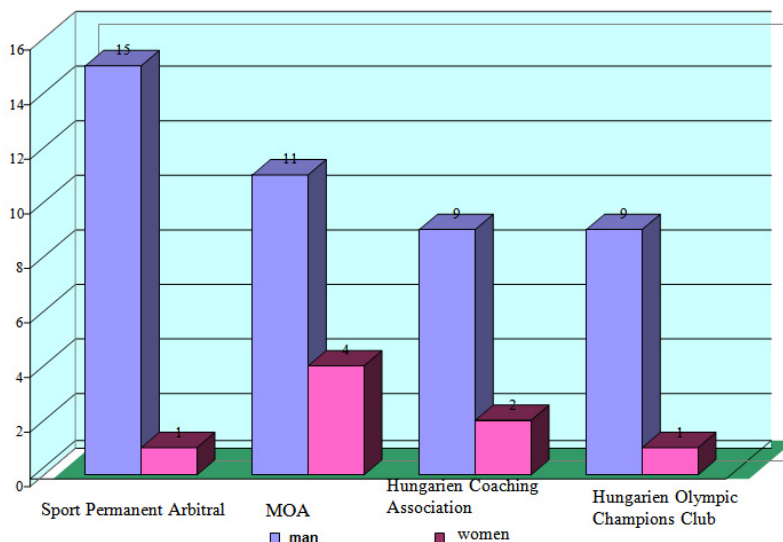


Figure 10. The rates of women – man in the presidency of four Hungarian sport organisations, in the year 2014.

[Source: The official web sites of the sport organisations]

You can see, significant changing, there has not been. The women's rates moves, about very few, only one- two, female on boards (Comment: in Sport Permanent Arbitral not the presidency, but size of the entire body is indicated).

Discussion

"...women continue to be under-represented in sport-, and executive decision-making positions" (Talbot M., 2000, p.91); and all fields: politics, business too, as the same the sport. „Despite the fact that they make up nearly half of the workforce and more than half of new university graduates in the European Union"; said by in 2010, Viviane Reding the vice-president of the European Commission of Justice, Fundamental Rights and Citizenship. In the sport leadership, the women's situation, their underrepresenting's in the senior leader position, well indicated their unequal opportunities, nowadays, which was well demonstrated above, with the data presented by graphs. The women are in very difficult situation, in the sport leadership. In vain, the IOC proposed, and expected for the year 2005, the women's 20 % rates, in the decision making position, in the national Olympic Committees, and in the principal national Sport Federations.

You could see, it is have not been put, have not been done, nor, for 2014. But these expected women's rates, have not been, implemented in IOC, too. In IOC the rates of women, were also about (or under) 10 percent; except two committees: more than 30% women's rates in IOC: Athletes Committee (35%), Accreditation Committee (33%).

In MOB, the women participation is also not reached the 20 % rates. In MOB, the rates of women, were also under (and about) 10-15 percent, in the assembly, and permanent committees of MOB too. The Ethics and Fair Play Committee (9,1%), and Traditional Keeping Committee (10%). The women chance very difficulty of not having women representing in the National Sport Federations, in decision making positions. You could see, there are very few women in the Presidencies of Hungarian (Olympic) Sport Federation; where there women are at all. Like above, I have already mentioned, in Hungary there are 18. Olympic Sport Federations, there are absolutely no women, in presidencies. All presidents of every Hungarian (summer Olympic) Sport Federations are man; and almost of the committees leader also men. There is a very few - limited pool of women occupying senior - leader- posts in the management of the federations. Women are practically never -or rarely- elected, for senior posts. We can verify, that the IOC, and the international sport federation and sport organisations imply the MOB are characterized by male dominance.

„The modern Olympic Movement has been imbued with male chauvinism and domination over women” (Theberge N., 1990, p.385). It was told some years ago, on a conference, - really the performer understood it for the lady athletes,- but the women's situation - in the sport leadership- unfortunately, has been as the same, and hasn't changed for over some years at all.

I think, equal right not enough. Equal rights - which no question in democratic countries - but, it doesn't mean equal opportunities. Because, in the legislations on gender equal opportunities, couldn't realise the real equality chance. In my opinion necessary to create chance equality!

I think, agree with a result of an other research, „...without balancing mechanism women can not enter the highest levels of corporate decision-making positions” (Szelényi Zs., 2012, p.14.). It seems, „...without quotas up, -even in the most open societies too- max. 15-20% female participation rate can be achieved” (Szelényi Zs., 2012, p.15.). This ratio without quota is very difficult to surpass. The Committee's of Ministers of European Union had a Declaration in 1988. In it was written: „..the principle of equality of the sexes is an integral part of human rights, and that sex related discrimination is an impediment to the exercise of fundamental freedoms” (Kardosné K.E., 2000, p.250.). The Committee had also ascertained, „...that inequality were extant de iure and de facto between women and men” (Kardosné K.E., 2000, p.250.). By reason of our research we found as the same: in the sport leadership hasn't been attained the real equality between women and men, yet.

In the end I would like to call attention, in the last summer Olympic Games, the number of female participants in sport has grown exponentially.

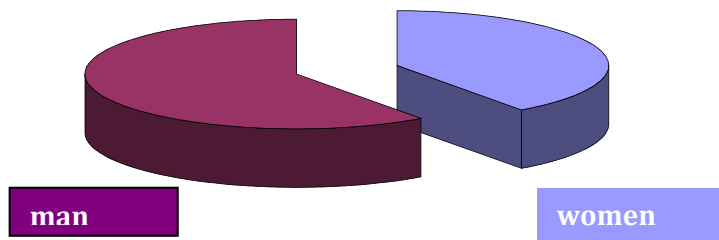


Figure 11. The rates of women – men, in the Hungarian Olympic Group in London, 2012.

[Source: The official web site of MOB]

But unfortunately, the increased number of female athletes, did not followed, the number of women sport leaders. The previous data's well shows, well proves that it is, fact far below the proportion of female athletes from those for the women sport leaders.

Conclusion

I think the rates of the female - athletes, should, (even must) follow the rates of women leaders in sport-organisations, in sport federations. Of this way, that women must have real opportunities to use their experience and values to enrich the areas in which men currently dominate, such sport/leadership/. That's why necessary some good practices, such as the use of specific tools to foster the leadership potential of women - role models, mentoring and networking, etc. The women could and should be in senior position, of the management, in the sport organisation, sport institutes, and in the sport administration, too.

I know there is a positive correlation between women in leadership and business performance. The sport could win, if more women would be in senior position, and more female leader works, in this area too. In my opinion that, reasonable and timely to increase the women's participations in the sport leadership, all in the Olympic Movement and every sport federations, and sport organisations. The fairness demand it, too. The promotion of gender balance in decision making, -in sport should (even must) continue to be one of its core priorities. Everybody became rich on this way.

Closing I cite from the Los Angeles Declaration (The Declaration of the 5th IOC World Conference on Women and Sport, 2012, p.1-3).

-„It is now 31 years since the IOC opened its membership to women, and 17 years since it fully implemented programmes and processes for helping women to systematically access higher levels of sports administration and competition (in: point 3).

-That the IOC and all the constituents of the Olympic Movement, especially the NOCs, International Federations and national federations, should ensure that, for the 2012/13 and all future election cycles, they achieve a more equitable representation on their Executive Committees (in: point 4)

- That the promotion of women’s participation in sports activities, management and administration should, and must, serve the wider goal of supporting the international agenda of gender equality and empowerment of women and girls (in: point 4)

-That there should be greater collaboration and cooperation between all organisations and institutions which support the promotion, rights and welfare of women and girls” (in: point 4)

“Together Stronger: the Future of Sport”.

(It was the motto of the 5th IOC World Conference on Women and Sport, in: point 1).

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