STUDIA

UNIVERSITATIS BABEŞ-BOLYAI

Educatio Artis Gymnasticae

CLUJ - NAPOCA 2005

Cluj University Press

2

ANUL L **2005**

S T U D I A

UNIVERSITATIS BABEŞ-BOLYAI

EDUCATIO ARTIS GYMNASTICAE
2

EDITORIAL OFFICE: Republicii no. 24, 3400 Cluj-Napoca ♦ Phone 0264-40.53.52

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THE INTERESTS OF SPORTS RESEARCH FOR SOCIETY

SABINE GOEMINNE[1]

Introduction

More and more people choose a sport-loving life style. This fits in with in an increasing attention to healthy food, a fit `look'. Active sporting practice is no longer a purely youthful and a typically male leisure activity. The advertisement media play on it skilfully; or more still, dictate the model to which sport-loving people must conform.

However the problem of overweight and obesity increases in almost all Western populations.

The problem takes now epidemic proportions with children as well as adults. Our industrialised society has made room for the car, the television and the computer, still stimulates a passive life or, worse, idleness. All this results in an increased intake of calories and a reduced energy consumption. The final result is a clear increase of the body weight. Overweight with adults is defined as a Quetelet index or BMI (Body Mass index: weight in kilogram divided by the quadrant of the body length in meter) between 25 and 30 kg/m². They speak of obesity if this index is equal or higher than 30 kg/m². This overweight is almost always the consequence of redundant fat accumulation.

The reasons for this unfavourable development are not very clear, but are related to the growing availability of foodstuffs and stimulants and to a decrease of the level of physical effort by the population. As far as food is concerned fat intake plays an important role, rapidly resorbing carbohydrates, alcohol etc. Also the decrease of the number of smokers can play a role in the weight increase at population level.

In the field of physical movement it is undoubtedly more important to avoid a sedentary life style then to promote an exorbitant physical activity. Food recommendations must relate to the quantity (reduction of the total caloric intake) and to the quality of the food by way of a better choice of foodstuffs.

Investment in sports is investment in the livableness of the society. In the long run investments in the sport can be earned back, because the sporting community can contribute directly or indirectly to the prevention or pushing back of expensive social problems among other things health problems as a result of kinetic scarcity. In that sense sporting participation research can make an important contribution to correct the policies.

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Situation of the research

Since the sixties of the previous century an active sport stimulation policy has been pursued in Flanders. The promotion of the sports for the young has become a serious priority within the Flemish sports policy the last fifteen years. In 1999, the first Flemish minister of sports was appointed.

he previous decades a lot participation study into sporting practice was performed in Flanders. By means of sports scientific research they tried to map the sporting participation, in order to be able to develop an active sports and kinetic policy in this way.

Since 1968 the research unit Socio-cultural Kinesiology of the Faculty of Physical Education and Physiotherapy at the Catholic University of Louvain has conducted a large-scale sporting participation investigation every ten years, namely in 1969, 1979, 1989 and 1999. This enabled us to compare the sportiveness of the Flemish population over a period of thirty years. At each moment mentioned above they sounded in an almost identical manner the sports behaviour and the social context of students and their parents, by means of standardised questionnaires.

Within the framework of our research we have sounded the active sporting practice of young people and their parents in the West Flemish capital Bruges using the same questionnaire. In this way we were able to evaluate the participation in sports for the young for Bruges in 2004 related to a number of social context characteristics, among which sex, age, education form and the sporting practice of the parents. Beside the general sporting participation also the intensity, the diversity, the organisational context and the sports preference were mapped. With this information we are able to analyse recent developments concerning sporting practice and to compare with previously obtained figures at Flemish level.

Random test

By means of the questionnaires the data were obtained of 6528 children and young people divided among 2657 families (5048 parents). The proportion of both sexes in the questionnaires amounted to 52,88% for the boys and 47,12% for the girls. Furthermore a representative group was composed on the basis of the school population per educational level (primary education 6-12 years and secondary education 13-18 years), per educational network (public education, officially subsidised education and free subsidised education) and per education form (general secondary, technical secondary, vocational secondary, art secondary and special secondary education).

For the highest level of education the highest obtained diploma was taken as a criterion. The socio-educational status of the largest groups of responding parents was situated in the educational levels higher technical, higher non university and university education.

The socio-educational or professional status of the parents was determined according to the classification method of Cliquet (1963).

Making term 'active sporting practice' operational

The term `sporting participation' was always conceptually and uniformly delimited in the same way. However the meaning of the sporting practice has changed strongly in the last thirty years.

Both the young people and the adults were questioned in the questionnaires about their active sporting participation, their sporting preferences and the organisational context in which a certain sporting discipline was practised. We also sounded the intensity of the sporting practice (number of hours /weeks /sports).
In our research into the interpretation of the term `sports' no restriction was imposed. In this way kinetic activities with a utilitarian character or taking place in a professional context were also included and mapped.

Results

With children from 6 up to 12 years 28% does not practise an additional sport outside the lessons of physical education at school. At the end of the primary school this tendency decreases. Most boys (34%) are moderately active sportsmen. Furthermore 28% situates itself entirely among the active boys. The Bruges boys prove nevertheless to be a bit more active than the Flemish average of their age-group. 60% prefers to practise sports in an organized way. The sporting club participation remains more or less stable during the lower school years. Among the club sports its football, basketball, judo and swimming are the most practised.

The figures for the girls were somewhat less positive. Almost a third of this population does not practise an additional sport outside the school hours, half of them is moderately active and a quarter of the group is active to very active. Half of the girls who practise sports does so exclusively in a club. There is a clear increase in sporting club participation; certainly from the age of ten.

We can decide that the research results for Bruges children were better than in the previous investigations for the whole of Flanders. Nevertheless this creates only a mixed satisfaction. The total group of inactive and moderately active boys and girls is still too strongly represented. Sporting clubs appear still attractive but a permanent commitment becomes difficult. The traditional sports still appear to be to the taste of the young people, but have competition of newer and less known sports branches.

For the 13 to 18 years old person it appeared that the higher the type of education, the bigger the sporting participation was. More than 37% of the boys is not active. From our research it further becomes clear that no less than 60% of the Bruges boys is not to moderately active. Approximately a quarter of the questioned boys (23%) hardly practises any sport. With the girls the results are still more saddening: no less than 70% of the girls from this age group belongs to the not active or moderately active group.

In the figure data of our research the obligatory hours of physical education at school are not included. It seems therefore obvious that the majority of the young people in secondary education only gets into touch with sports in an active way almost exclusively during the school hours. It is clear that the supply of sports

during the school hours is not enough to adopt a sport-loving lifestyle. `New' or contemporary sports such as mountain bike, ultimate frisbee, squash,… take a place in the top ten of most practised sport activities in this age group. The sporting landscape is growing vast. Dancing, tennis and volleyball prove THE sports for girls.

The sports behaviour of the children and young people was further connected with the sportiveness of the parents. There appeared to exist a positive correlation appeared between the sportiveness of the parents and that of the children. The observation that fathers or mothers who are only a little or not sport-loving also have children who are little sport-loving, appeared significant. Consequently the sport-loving role of the parents cannot be underestimated.

Further it also appeared that the higher the level of education of the parents the more intense the sporting practice of the child was. Also the social stratification of the sports preference appeared clearly. The sports branch which sport-loving young people choose, is related to the education of the parents. A number of sports still have an elitist character: tennis, hockey, golf,... A number of other sports was democratised such as horse riding and judo.

In contrast to the weak sport intensity among young people, the thirteen to eighteen years old more and more join a sporting club.

Also among the adults there were remarkable results. Both among men and at women the active sporting participation increases steadily. This we owe mainly to the many consciousness raising actions of the policy makers. Nevertheless one in two women from our investigation does not practise any sporting activity.

The number of the different disciplines practised by the participants has also strongly increased. Among men football, tennis, volleyball and fitness play the main role. Among the women this role is reserved for fitness, tennis, gymnastics and badminton.

Among women there a larger sporting club participation can be noticed. The reason for this can be that the `commitment' is felt to be larger and can become and an additional stimulus not to give up.

In order to make statements concerning the stratification of the sporting practice in view of the specific sporting preference, we use a general and sports related stratification index. Sports such as golf, hockey and tennis are played by adults with a higher level of education. Football and fitness are practised by men from all levels of education. Horse riding has lost its elitist character somewhat.

Adults with a lower level of education have a less active sporting participation and a less diverse sporting pattern.

Final remark

The preceding results can be clear resources for the policy makers. The supply of sufficient sporting possibilities and facilities can be an important pillar in the sports policy. Aspiring to quality control in the sports for the young must receive the necessary attention. Stimulating children and young people to take part in sports is consequently THE mission.

Young people more often aim at newer sporting branches and less known sporting disciplines and at a larger non-commitment and individualisation. In a future quality policy concerning sport for the young this has to be taken into account.

Because of the increasing leisure time and the ageing of the population we have to provide sufficient sporting activities for the adults and elderly.

The intrinsic value of sports remains large but the competition with other leisure activities becomes harder.

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HUMAN RESOURCES IN SPORT ORGANIZATIONS

CRISTIAN BATALI[1], GHEORGHE ROMAN[2]

REZUMAT. Resursele umane în organizaţiile sportive. Criticile la adresa primelor cercetări din domeniul man7agementului sportiv evidenţiau orientarea lor spre latura pur descriptivă şi lipsa fundamentării teoretice şi ştiinţifice. Managementul în sport se limita la domeniul educaţiei fizice şi la "administrarea" sportivilor. Este notabilă creşterea în ceea ce priveşte gradul şi modul de folosire, în managementul sportiv actual, a teoriilor, metodelor şi mijloacelor împrumutate din ştiinţele socio-umane şi economice. Noua filosofie a organizaţiilor evidenţiază rolul primordial al subsistemului resurselor umane (parte componentă a sistemului de management sportiv): "oamenii reprezintă organizaţia" (Manolescu, 2001).

Sport organizations, as any other kind of organization, are based upon interactions among individuals that follow the same objectives. Organizations appeared due to the limited physical and intellectual capacities of the humans and also because of their social nature. Some experts of the field define organizations as social inventions, which function in order to achieve common goals by a group effort. The base hypothesis is that main goals of the organization are well known and accepted by all its members and personal objectives are integrated in the general objectives of the organization.

Human resources management is considered to be either a part of the general management of the organization or a distinctive activity but general opinion about its effects in the labor process is unanimous: it generates professional success or failure.

The sport management, as a very complex process, can emphasize its virtues only by and with human resources. Wherever appear and develop management actions, human factor is involved at different levels: managers or executors. Dynamics, intensity and diversity are very important aspects related to the human factor that is the key factor that has to be administrated, like other kind of resources, using techniques of economical analysis and management theories.

The process of human resources management transforms the information about the human resources in decisions and social actions inside the organization (Figure 1).

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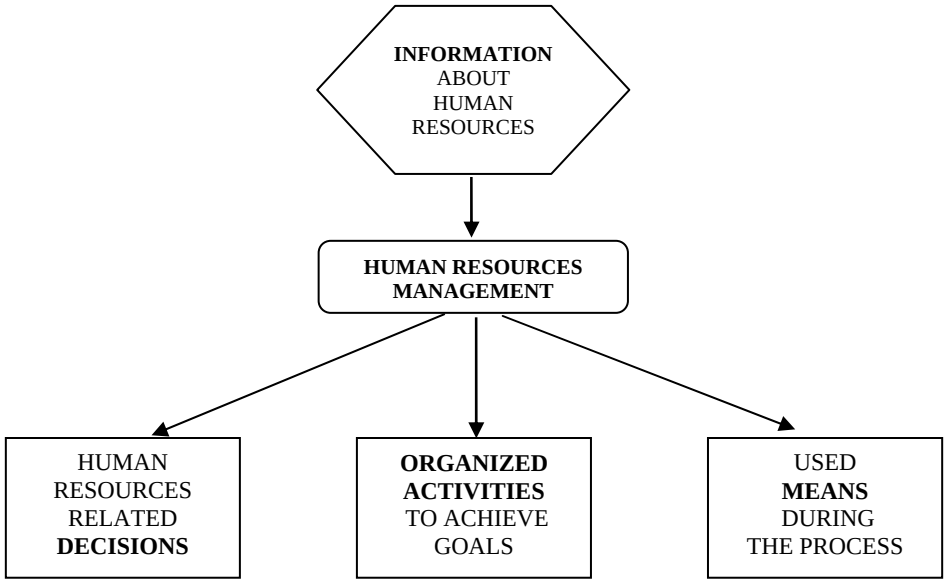

Figure 1. Human resources management as a process

Main elements that define the human resources management as a process are: the decisions, the organization of the activities for reaching the goals and the used means. So, the human management process is considered to be dynamic, flexible and continuous structured on three phases:

- Foreseeing phase (strategic objectives are drawn)
- Operational phase (objectives are materialized)
- Post-operational phase (results evaluation).

The above-mentioned phases are detailed in six successive steps that are taken during the construction of the human resources subsystem (part of the sport management system) (Figure 2).

As a conclusion we can associate the following activities to the human resources management concept:

- Management-human resources relations,
- Personnel recruiting and selection,
- Job analysis and description (tasks, duties, hierarchy),
- Personnel formation and development (needs for instruction),
- Personnel motivation,

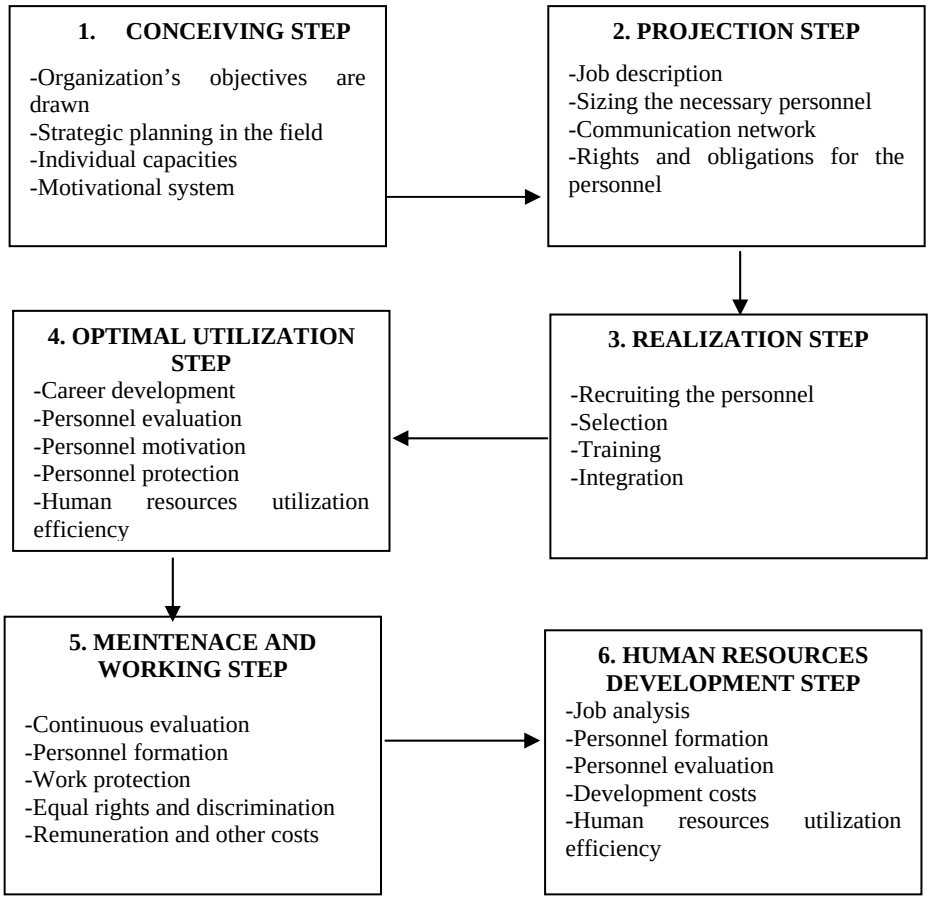

Figure 2. Steps of the human resources subsystem realization

- Performance management (results evaluation),
- Remuneration management,
- Work relations (disciplinary procedures).

In sport field human resources represent most valuable investment because of their capabilities to produce and also to reproduce all the other resources. The complexity of the sport training process allows us to see the human factor from three different points of view: as a subject, as an object and also as a goal.

Human resources involved in sport can be classified in:

- Leaders and promoters of the activities (managers, physical education professors, coaches, trainers, sport physicians, masseurs, nutritionists),

- People who practice sport activities at different levels and in different forms of organization (children, adults, third age people, amateur athletes, professional athletes).

Another criterion divides human resources present in the sport field in:

- Remunerated personnel (managers, coaches, trainers, technicians, auxiliary personnel),
- Volunteer personnel (referees, trainers, sport instructors, competitions organizers).

Remunerated personnel are the main factor that activates within sport organization and has different functions (set of duties that must be carried out on daily basis and in an organized manner). We can distinguish two types of functions:

- Management functions (president, vice-president, secretary, chief accountant)
- Executive functions (technical director, head coach, assistant coach, physical trainer, sport physician, masseur, psychologist, lawyer, methodologist, nutritionist, sporting goods keeper, guards).

This modern structure of the sport organizations is relatively new, since entrepreneurial period, in the early 80's, when the human resources management concept appeared. Job vacancy is no longer a criterion in personnel recruiting and selection. Among the other sport organization's resources, human resources emphasize management's specificity as a purely human activity.

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VALIDITY AND ACCURACY OF THE EVALUATION SYSTEM

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REZUMAT. Validitatea şi fidelitatea Sistemului de evaluare. Cercetarea efectuată a urmărit un proces de validare şi operaţionalizare a unui sistem de evaluare a jucătorilor de baschet.Validitatea şi fidelitatea sistemului de evaluare experimentat s-a realizat prin tehnica multitrăsături-multimetode descrisă de Campell şi Fiske (1959). Această metodă porneşte de la ideea că prin utilizarea mai multor metode pentru a măsura o aceeaşi variabilă, corelaţiile dintre aceste măsurători vor lua forma unei matrici (Pitariu, 2000). De pildă, noi am identificat la jucătorii de baschet 5 dimensiuni sportive pe baza cărora am construit o fişă de apreciere după principiile scalelor cu ancore comportamentale.

The strong evolution of contemporary sport determined the specialists to focus on the training factors that have been more or less neglected.

Therefore, nowadays, the psychological training is present not only in the training strategies of the teams and sportsmen, but is also considered the component of the science of Sport Training Theory, having the largest perspective.

The study and research of psychological training methods proved the growth of the performances by applying them. But, the question raised by the specialists in the area, is the following: Is it worth for a sportsman to dedicate a part of his time for learning specific psychological training techniques, or is it better for him to use that time for the actual training? (Hahn, 2001)

In ours attempt to finding an answer to the previous question, we have discovered the alternative that human resource management can offer. we will not present solid reasons why more methods of labour and organisation psychology would be necessary in sports, but we will present one of the aspects that can be used for optimising the sport performance.

The undertaken research approached a topic that could seem unusual for the persons involved in the coordination of the basketball teams namely the implementation of an adequate evaluation system of performances for optimizing the team. That is why we borrowed an evaluation technique used within the organizations in order to evaluate the personnel.

Of course, the validation of such an evaluation instrument is an activity involving a large number of subjects, taking into account several specific strategies.

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Further on, we shall present the results obtained, trying to underline the operating procedure and the usefulness of such a work instrument.

The validation and the reliability of the experimented evaluation system were performed by the multitrait-multimethod matrix described by Campell&Fiske (1959). This method starts from the idea that by using several methods in order to measure the same variable, the correlations between those measurements shall shape a matrix (Pitariu, 2000). For instance we identified in the case of basketball players 5 sport criteria on the basis of which we filled in a chart using evaluation scales with behaviors anchors

The convergent validity is the degree to which the concepts that should theoretically associate themselves have some correlate in reality. And the discriminative validity is the degree to which the concepts that are not supposed to associate have no correlate in reality.

This technique supposes that, out of several concepts, each shall be measured separately (Campell and Fiske used the term traits instead of concepts, in our case it's about the criteria included in the scales with behaviors anchors), by each method used in the effective case (in our case, these methods are underlined by converting the scale to another format and by applying them at an interval of ten days.

In essence, the multitrait-multimethod matrix is a matrix of correlations between the measurements performed (in our case SEAC 1, SEAC 2). This matrix comprises only correlations. These correlations can be grouped into three kinds of shapes: diagonals, triangles, and blocks.

In Fig. No. 1. we present the Interco relation matrix resulted from the technique previously described. Thus, the correlations between the sports criteria studied are included in triangles circumscribed in continuous lines, as well as in the colored ones. According to the principles previously described the lower the scores between the correlations, the higher the independence between them, consequently, one can talk about discriminative validity.

The coefficients inside the continuous line triangles represent scores of the evaluation chart when using the same scales with behaviors anchors

Inside the colored triangles there are included the correlations between the criteria used by the two types of SEAC. This allow us to compare the correlations and consequently to estimate the convergent validity.

The examination of the multitrait-multimethod matrix reveals that the scores of the coefficients inside the continuous line triangles are quite low. Obviously, the lower the Interco relations between the scores, the higher the independence between the performance scores.

This situation is an indicator of the fact that evaluation system tested allowed the evaluators to distinguish between the performances measured by each particular criterion. The procedure illustrates a significant discriminative validity (Trochim, 2000).

The analysis of the Interco relations inside the colored triangles is oriented more towards the value of the convergent validity coefficients. The interpretation of the

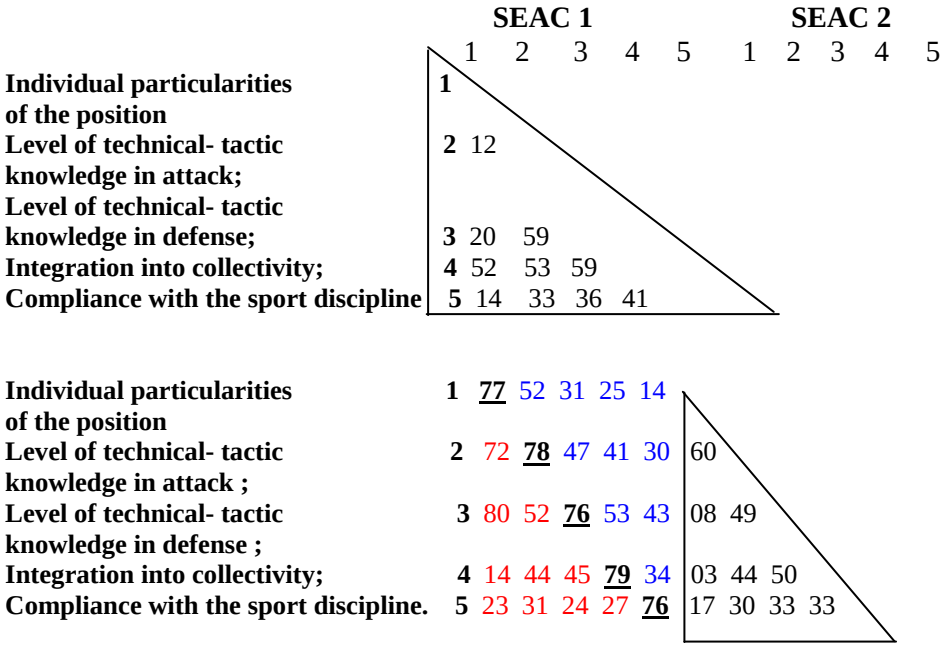

Figure 1. Correlations between the sport criteria of the evaluation chart of the type SEAC 1 and SEAC 2 (N=254)

convergent validity coefficients (the validity diagonal) supposes that all these coefficients having values higher than .50 can be considered as valid. In the case presented one can notice that all the 5 convergent validity coefficients are higher than .50 oscillating between .74 and .79, as a proof that the scores of the two types of evaluation systems lead to similar results.

The tested evaluation chart can be considered as useful for the players' evaluation.

1. The basketball players' evaluation scale was built following the evaluation scales with behaviour anchors. This scale was validated by the multitrait-multimethod matrix described by Campell and Fiske (1959) which is used in order to estimate the construct validity as well as to evaluate the convergent and discriminative validity. In this study the value of the convergence coefficients for the all the three groups of evaluators (main coach, secondary coach, team captain) fluctuates between .76 and .79. The evaluation error frequency is reduced and rather due to the lack of evaluation experience of the basketball players. The low scores of the correlation coefficients demonstrate the independence between the evaluated sports criteria as the halo effect is reduced. The high scores generally over .50 of the correlation coefficients between the pair of evaluator's captains/main coaches, especially if we take into consideration the fact that it takes place between a total of evaluators not belonging to the same

organization. Because of the group heterogeneity it was very difficult to conclude a total agreement between the individuals whose teams differ from the point of view of age, sex, contest level even citizenship. Instead, between the pair of evaluator's main coach/secondary coach the values of these coefficients are lower and sometimes are not statistically significant. Obviously, this finding cannot be neglected. But I considered that besides the reasons previously mentioned, concerning the secondary coaches' statute, the reduced number of subjects (65) influenced the correlation relations almost in all the cases examined. Lately, when evaluating the personnel, the criteria evaluated are actually constructs often not too well defined, a fact which leads to difficulties in the validity study;

2. The usefulness of evaluation scales with behaviors anchors for the evaluation of the basketball players:

- offer the possibility of a detailed analysis of the basketball players' behaviors;
- offer to the technique staff a more realistic image on the aspects specific to the basketball players' behaviors;
- offer the possibility of a constructive and educational feedback based on the disclosure of sportsman' positive and negative aspects;
- allow the sportsman a more ample discussion about the personal performance;

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STUDY REGARDING THE INCIDENCE OF PHYSICAL DEFICIENCIES AT THE FEFS CLUJ-NAPOCA

MAROLICARU MARIANA[1], CIOCOI-POP D.RAREŞ[2], BOROS-BALINT IULIANA[3]

REZUMAT. Studiul privind incidența deficiențelor fizice la studenții FEFS Cluj-Napoca. Incidența mare a atitudinilor vicioase de postură trage un semnal de alarmă în legătură cu îndeplinirea sarcinilor educației fizice şcolare. Considerăm necesară revizuirea metodologiei activității de educație fizică școlară din învățământ.

1. Deficiency can be translated trough lack of anatomic and functional integrity of an organ; it is the deviation from normality regarding shape and physical functions of the body, which interfere with the normal and harmonious growth, and also changes the exterior look and reduces physical and intelectual abilities.

The posture is a function of human body based on a synergic and coordinated action of locomotor apparatus and nervous system which help maintain equilibrium and constant ratio between the body and its segments and between the body and the environment.

Physical deficiencies are caused by a multitude of factors; they are frequent and they could appear from early childhood.

The literature signals, lately, an increase in the number of individuals with physical deficiencies and poor body postures. Most of the authors pay attention to the evolution of posture in the growth period related to activities in school. Only few authors research body postures to adults, trying to highlight a link with work activities; even less there are researched the elder person subjected to ageing process.

Body posture has to be appreciated not only from an aesthetic point of view, but as a sign of health, as a sign of normal and harmonious development and last but not least as a result of good influence of education both physical and psychological.

2. Anthropometric measurement of the first year students – year 2005- revealed that the subjects have physical deficiencies and bad postures.

In support for this affirmation we have selected- depending of the year of birth- 30 male students, 30 female students from physical education line of study

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and 30 female students from physical therapy line of study. All the subjects are born in 1985 so they are 19 years old.

From 30 female students from physical education line of study only 5 have a correct development, 2 have bad postures and the rest have associated physical deficiencies:

- scoliosis (dorsal or lombar) – 8 subjects;
- dorsal lordosis – 9 subjects;
- plane back – 1 subject;
- flat foot -12 subjects;
- asymmetric shoulders – 3 subjects;
- hidden sternum- 1 subject.

For the male subjects we have:

- kyphotic attitude – 2 subjects;
- dorsal kyphosis – 4 subjects;
- scoliotic posture – 3 subjects;
- dorsal scoliosis – 11 subjects;
- dorso-lombar scoliosis – 1 subject;
- lumbar scoliosis- 1 subject
- lordotic posture – 1 subject;
- lordosis – 6 subjects;
- flat foot – 10 subjects;
- asymmetric shoulders- 2 subjects;
- hidden sternum – 1 subject.

It is worth noticing that in the case of male subjects all of them present at least a bad posture.

For the female subjects from the physical therapy line of study the situation is as follows:

- kyphosis – 1 subject;
- scoliosis – 7 subjects;
- lordosis – 6 subjects;
- flat foot- 17 subjects;
- asymmetric shoulders – 5 subjects;
- hidden sternum – 1 subject
- without deficiencies – 5 subjects.

Ranking the deficiencies meet at all the 90 subjects results the following:

- rank I – flat foot – 39 subjects;
- rank II – scoliosis (all forms) – 29 subjects;
- rank III – lordosis (all forms) – 22 subjects;
- rank IV – asymmetric shoulders – 10 subjects;
- rank V – hidden sternum – 3 subjects;
- rank VI – plane back – 1 subject.

Chart1. Hierarchy of posture deficiencies

Considering that the subjects are 19 year old youngsters, who just graduated high school, the issue of their of physical deficiencies can find an answer, valid for the most part of the deficiencies, by the fact that prevention and early tracing out of the deficiencies didn't take place in time. An important role should have been played by physical education activity during school years, considering that a main objective of physical education is "harmonious and correct development"

Trying to reach a conclusion in this stage it would not be proper considering that we don't have information regarding the causes of the deficiencies that may be:

- internal or external;
- direct or indirect;
- proclivity;
- propitiously;
- determinative;
- congenital;
- afterbirth;

3. Considering the group of subjects as being statistically representative we can say that the state of bad physical development raises a lot of question marks, their answers could be find in the unfolding methodology of the school physical education activity.

Lately, the idea that it is important students "to move" is gaining more adepts. This thing is poorly understood and applied because the long term experience (years and years) proved right the importance of the content and methods applied in activity. It has to be payed more attention to the aspects which take into account the correctness of various exercises and complexes of exercises, technical elements because the correctness in execution determines positive changes in growing and developing body. We consider that we can give anymore a big credit to the non directional pedagogy, which allows the student to do what she or he wants, or said in other words to express itself freely. We also don't have to give up the organizing forms and the activity content, content that has to respect the systemic approach of the objectives which have to be fulfilled trough physical education.

It follows to complete these observations with other results from somatoscopic exam and anthropological measurements of other youngsters, students to other faculties than physical education.

STUDIA UNIVERSITATIS BABEŞ-BOLYAI, EDUCATIO ARTIS GYMNASTICAE, L, 2, 2005

THE RELATIONSHIP BETWEEN ANXIETY AND PERFORMANCE: A COGNITIVE-BEHAVIORAL PERSPECTIVE

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REZUMAT. Pelația dintre anxietate şi preformanță: o perspectivă cognitiv – comportamentală. Lucrarea de față se bazează pe multe cercetări desfăşurate în domeniul psihic, psiho-somatic si psihologic, cu aplicații în comportamentul sportiv, relevând legătura dintre anxietate şi performanță. De asemenea oferă unele soluții, suficient de pertinente la această stare de anxietate. Concluzia cea mai importantă este faptul că sănătatea mentală joacă rolul cel mai important în reducerea gradului de anxietate şi în obținerea unor performanțe mai ridicate. Aceasta, combinată cu un nivel cât mai scăzut de tensiune, depresie, nervozitate, oboseală sau confuzie dă cel mai mare randament şi oferă şansele cele mai mari de a obține performanțele dorite.

Introduction

This paper examines the relationship between anxiety and performance from a cognitive-behavioral perspective. Previous research in the field has suggested that the majority of consultations conducted by sport psychologists are related to anxiety. Included is a discussion on the theoretical underpinnings of anxiety and how it relates to performance. Research conducted on the relationship between anxiety and performance is also discussed. A review of the cognitive-behavioral treatments that have been used for anxiety reduction and performance enhancement within the field of sports is included. Suggestions for future research and practical considerations are listed in the conclusion.

The ability to cope with pressure and anxiety is an integral part of sports, particularly among elite sportsmen. Researchers have reported that over 50 of consultations among sportsmen at an Olympic festival were related to stress or anxiety related problems. A great deal of research has been conducted examining the relationship between anxiety and performance within the field of athletics. This paper will review the relevant research from a cognitive-behavioral perspective. Included is a discussion of the research findings of the relationship between the two constructs. In addition, the research that has examined the efficacy of cognitive-behavioral treatments is also discussed. Although a great deal of information has been generated, the results are limited due problems in the terminology used by researchers. Therefore, it is important to first examine the conceptualization of anxiety.

Theoretical Constructs of Anxiety

Previous research conducted relating to anxiety and performance in sportsmen has been difficult to synthesize for a variety of reasons including methodological flaws such as a lack of clear operational definitions and a clear theoretical construct. This section will establish operational definitions for the terms that will be used throughout the rest of this paper. In addition, it will provide an overview of the theories that have been used by researchers who have attempted to clarify the relationship between anxiety and performance in athletics.

The main problem that research on the relationship between anxiety and performance has encountered is that researchers have not adequately operationally defined the construct of anxiety. Instead, terms such as stress, anxiety, arousal and activation have been used interchangeably. For the purposes of this paper the following operational definitions will be used for the terms anxiety and stress. Stress is a state that results form the demands that are placed on the individual which require that person to engage in some coping behavior. Arousal can be considered to be a signal to the individual that he or she has entered a stressful state and is characterized by physiological signs. Anxiety results when the individual doubts his or her ability to cope with the situation that causes him or her stress. Another important point that needs to be clarified is the difference between state and trait anxiety. While state anxiety can be considered to be more situational in nature and is often associated with arousal of the autonomic nervous system, trait anxiety can be thought of as a world view that an individual uses when coping with situations in his or her environment. Trait anxiety influences performances in that individuals with high trait anxiety will attend more to information related to state anxiety. Previous research outside of sport and exercise psychology has indicated that individuals with high trait anxiety who are state anxious attend to threat related information, while individuals with low trait anxiety who are state anxious will attend away from threat related information. Within the context of sports, those individuals who are low trait anxious and experience high state anxiety would find it facilitative to a peak performance; but, those individuals with who are high trait anxious and experience state anxiety will find it debilitative to athletic performance. One of the earliest models that attempted to explain the relationship between arousal and performance was the inverted-U hypothesis. It stated that as arousal increased performance would increase as well; but, if arousal became too great performance would deteriorate. In other words, as stress began to build an individual still felt confident in their ability to control it and performance would improve. However, once a stressor became so great that the individual started to doubt the ability to cope with, performance began to decline. Although this model gave some explanation as to why performances deteriorated when individuals felt stress, it did not account for the differences in the performance of athletes who are exposed to the same stressor.

Researchers attempted to account for the differences in the performances of individuals through the concept of individualized zones of optimal functioning

or IZOFs. According to this theory, each individual has an optimal level of pre-performance anxiety which results in peak performances. However, if the pre-performance anxiety lies outside the area of the IZOF, whether too high or too low, then performance will deteriorate. IZOFs can be determined by repeatedly measuring anxiety and performance or through athlete's recall of anxiety levels prior to peak performances. Indeed, researchers found that IZOFs are better predictors of performance then the inverted U- hypothesis. Although this is a better model then the inverted-U hypothesis, it still fails to explain the factors that account for the individual differences in performance among athletes.

The differences observed between successful and unsuccessful sportsmen may be the result of their cognitive interpretation of their anxiety states. According to reversal theory arousal is interpreted differently depending on their present state. In telic states athletes are focused on a goal and thus interpret their arousal as anxiety. However, in paratelic states performers are focused on their behavior and therefore interpret their arousal as excitement. Individuals can flip from one state to another quickly and therefore change their interpretation of the arousal that they experience which in turn affects their performance. This theory attempts to incorporate both physiological and cognitive factors in its explanation of the relationship between performance and anxiety but fails to explain their relationship with performance adequately.

Multidimensional anxiety theory expanded on reversal theory's inclusion of cognitive and physiological factors. In this model, cognitive anxiety (the central tenet of which is concerned with the consequences of failure) has been found to have a negative linear relationship with performance. Self-confidence (a separate cognitive component) has been found to have a positive linear relationship with performance. Finally, somatic anxiety (physiological symptoms) has been found to have an inverted-U shaped relationship with performance. Although this model incorporates many elements of anxiety, it still treats them as separate entities. The next model that arose looked at the interaction between two of these three factors.

The catastrophe model of anxiety and performance looks at the interactive effects of physiological arousal and cognitive anxiety upon performance. Physiological arousal can influence performance as a result of the individual's interpretation of their physiological symptoms. According to the model as cognitive anxiety increases it will be beneficial to performance at low levels of physiological arousal but a detrimental effect at high levels of physiological arousal. Furthermore, when cognitive anxiety is at a low level, changes in physiological arousal have little effect upon performance. However, as cognitive anxiety increases physiological arousal can have either a positive or negative effect on performance depending on how much arousal there is. Once physiological arousal levels are too high there is a steep drop in performance which can only be reversed by a reduction in physiological arousal. Although the model fails to include a self-confidence variable, its interactive approach seems to be the best explanation for observed behavior.

Effects of Anxiety in Sportsmen

A great deal of research has been devoted to the effect of anxiety on sports performance. Researchers have found that competitive state anxiety is higher for amateur athletes in individual sports compared with athletes in team sports. In addition, participants in individual non-contact sports have been found to report lower levels of state anxiety than participants in individual contact sports. This section will review this research from the perspective of the theoretical models discussed above. Cognitive anxiety has been found to exert a powerful influence on performance. This statement holds true regardless of the individual's skill level. Participants in a collegiate softball tournament were put into one of two conditions: high situation criticality or low. While somatic anxiety did not differ in the two situations, those sportsmen in the high criticality condition had significantly higher levels of cognitive-anxiety. Clearly the cognitive interpretation an individual gives to a situation exerts an effect. Researchers have found that athletes that are successful interpret arousal to be facilitative. Research conducted with an elite group of swimmers found that anxiety intensity levels were higher in subjects who interpreted their anxiety as debilitative as those who reported it as being facilitative. This has been found to be true of gymnasts as well as basketball players. Gould, Petrchlikoff, and Weinberg (1984) have reported that the strongest predictor of cognitive anxiety was years of experience such that the more experience an individual had the lower the level of cognitive anxiety.Advanced subjects (individuals who had been participating in the sport for an extended period of time) reported more facilitative interpretations of their anxiety than novices. Similar results have been observed among a group of elite swimmers. Perhaps this is due to previous experience with arousal and how to cope. This conclusion is supported by the research of Jones, Swain, and Cale (1990) found that cognitive anxiety was best predicted by an evaluation of previous performances, individual's perception of preparedness, and goal setting.

The amount of self-confidence that an individual possesses has been found to differ among elite and novice sportsmen. Research with a group of tennis players indicated that the advanced players had significantly higher levels of self-confidence. This has been found to be true of gymnasts as well as swimmers. The predictors of self-confidence identified by research are perception of preparedness, and external conditions. Other researchers have found that the strongest predictor of self-confidence has been found to be the amount of ability that an individual believed he or she had. This makes sense given an individuals previous experience in a given situation. Self-confidence has been found to account for a greater proportion of variance in performance than cognitive or somatic anxiety. This suggests that the most powerful quality that elite performers posses is a high level of self-confidence which may act as a protective factor from cognitive anxiety.

Although the research conducted focusing on cognitive anxiety and self-confidence provides some insight into their effect on sports performance, the interaction of these variables in conjunction with somatic anxiety provides a better

understanding of the true effects. Research conducted comparing sportsmen competing in team sports (basketball) with those competing in individual sports (track and field) has found that subjects competing in individual sports report significantly lower self-confidence and higher somatic anxiety than team sport athletes. This is supported by research that has been conducted with figure skaters as well. Martin and Hall's (1997) research demonstrated that skaters experienced grater cognitive and somatic anxiety prior to an individual competitive event than prior to a team competition. Perhaps this is due to a diffusion of responsibility that occurs in the team framework but not in an individual framework. Important gender differences have also been found by researchers focusing on the relationship between cognitive anxiety, self-confidence, and somatic anxiety. Females had lower self-confidence and higher somatic anxiety scores than males. This research also focused on the location of an athletic event as well, finding that away games resulted in increased somatic anxiety and lower self-confidence. Finally, researchers found that adolescents, regardless of gender, experienced significantly higher levels of cognitive and somatic anxiety and lower levels of self-confidence as the ability of opponents increased. This is partially supported by research that has focused on the determinants of anxiety as well as gender. Among males, cognitive and somatic anxiety was more strongly affected by their perception of opponent's ability and probability of winning. Female's cognitive anxiety and self-confidence is determined by readiness to perform and the importance they personally placed on doing well. These gender differences are indicative of the need to develop interventions that are tailored to individual needs and the importance of considering all factors when developing an intervention.

Clearly, anxiety exerts a variety of effects on sports performance. These effects vary based on sport, gender and level of experience. In order to facilitate peak performances by athletes, sport psychologists must consider the three different facts of anxiety: cognitive anxiety, somatic anxiety, and self-confidence. Given the research that indicates that successful athletes who interpret their anxiety as being facilitative is characterized by high scores on self-confidence and low scores on somatic and cognitive anxiety, sport psychologist should work towards achieving this ideal state among their clients. Let us now turn our attention to the variety of treatments that are available for the treatment of anxiety within the athletic context.

Cognitive-Behavioral Treatments in Sports

The research cited so far in this paper clearly indicates that it is important for sportsmen to be able to control their anxiety if they are to produce peak performances at important times. A large discrepancy between performance in practice and in competition is indicative that the sportsman is having a hard time achieving an appropriate level of arousal or may over aroused. Advances in the field of anxiety reduction in general have transferred over into athletics. Research in the field has identified the following strategies used by elite performers to control their anxiety: goal setting; though control strategies such as positive thinking and cognitive

restructuring; relaxation techniques such as diaphragmatic breathing, imagery, and progressive muscle relaxation; and focusing on the task at hand. This section will review research that has been conducted on applied treatments for anxiety reduction within the sporting context. Specific interventions and therapeutic considerations will also be discussed in this section.

In the past, researchers have examined the effectiveness of cognitive-behavioral interventions with a variety of sportsmen. The treatment modalities that have been used have had considerable variability in content and in format. Early research in the field was based on work for anxiety reduction in clinical settings. Research conducted with two female collegiate basketball players who received training in relaxation, imagery, and cognitive restructuring had significant improvements in concentration problems and in game anxiety. The authors concluded that the interventions improved performance by reducing anxiety and improving self-esteem. Later research continued to demonstrate the efficacy of cognitive-behavioral interventions in improving athletic performance. One study used the cognitive-behavioral interventions mentioned above in 7 weekly 2-hour group sessions. The results indicated that in comparison to the no treatment control group, the treatment group showed decreases in anxiety. Another study using a multiple baseline design demonstrated that after a cognitive-behavioral intervention there was a significant decrease in cognitive and somatic anxiety as well as an increase in self-confidence. However, the improvement in self-confidence may have been due to the individualized nature of the treatment provided. This is supported by other research conducted with collegiate basketball players who were treated in either a group or a combination group/individualized program. Although there was a decrease in cognitive and somatic anxiety for all sportsmen, only those subjects who participated in the individualized program had improved scores on self-confidence. This indicates that an individualized treatment program may be most beneficial for athletes who are having difficulties with self-confidence, but that treatment of cognitive and somatic anxiety can take place in a group format. Some research has suggested that any intervention regardless of content was beneficial in reducing anxiety. Tennis players in one of four interventions (imagery, relaxation, relaxation and imagery, and concentration) showed significant reductions in somatic and cognitive anxiety and an improvement in self-confidence. If the researchers would have included a no-treatment control group, then their results might have shown some differences among the groups; but, this study still indicates that cognitive-behavioral interventions are effective for the purposes of performance enhancement. However, research conducted with field hockey players has concluded that anxiety reduction techniques that are directed at the individual's dominant anxiety type (cognitive or somatic) are more effective. It is therefore necessary to asses sportsmen's needs before instituting interventions. None the less, the above research demonstrates the effectiveness of cognitive-behavioral interventions. We now turn our attention to the specific techniques that generally comprise these treatments: relaxation, cognitive imagery, and restructuring.

Relaxation is one method that has been discussed in the literature for reducing both cognitive and somatic anxiety. It is important since it can reduce the individual. These two strategies have been used successfully in the treatment of clinical populations. While a discussion of the procedures used in these two treatments is beyond the scope of this paper, they are still an important component of any anxiety reduction intervention for the purposes of performance enhancement. Butler (1996) also notes that at times sportsmen have a hard time reducing their arousal levels once a competition has ended. Use of progressive muscle relaxation is recommended for this purpose and may be beneficial for athletes who have difficulty sleeping the night before a big competition. Although both of these interventions are beneficial for the purposes of anxiety reduction previous experience indicates that they initially work best when used in conjunction with imagery focusing on relaxation. As the athlete begins to master these techniques the relaxing imagery can be dropped off.

Imagery and mental rehearsal of tasks is also beneficial for the individual seeking to improve athletic performance. It provides familiarity with the task at hand and also provides positive feedback of their imagined performance. This intervention has been proven to be effective with collegiate athletes in all sports. Results of research indicate that individuals who were in the imagery intervention had significantly greater increases in sport performance and sport competition anxiety than did the delayed-training control group. Little is known about how imagery functions. However, researchers have identified visual imagery ability and motivational arousal imagery as predictors of cognitive state anxiety. Visual imagery ability was also predictive of somatic state anxiety and motivational mastery imagery was predictive of self-confidence. The researchers also found that imagery ability was significantly related to imagery use such that as ability increased so did use. Butler (1996) identified the following components a being important to a successful imagery routine:

- Selection of a skill to be imagined. Visualization should be preceded by relaxation. Visualization should also be as a realistic as possible incorporating the use of all senses and the venue of the athletic competition.
- The technique to be imagined should be brought into focus. An internal perspective (as if they are viewing it through their eyes not the eyes of a camera on them performing the skill) is necessary. In addition, an attempt to feel the movement is effective in enhancing the imagery exercise.
- Practice the skill in "real time," there is no need to speed up or slow the skill down. Inclusion of coaches in the development of an imagery routine is important since it incorporates their technical skill and helps to minimize the perception of psychologists as a threat by coaches.

Butler (1996) concludes that imagery is an important component of an athlete's pre-competition regimen if they are to be successful.

Cognitive restructuring is an important component of treatment since it allows individuals to have a different interpretation of the activation states they are

experiencing and thus reduce cognitive anxiety. It can be beneficial for de-emphasizing the importance of competitions which will allow an athlete's true ability to come through. According to multidimensional anxiety theory, elite performers will have peak performances as cognitive anxiety decreases and self-confidence increases. This suggests that an appropriate intervention might be to de-emphasize the importance of competitions and try to achieve an intermediate level of somatic anxiety. Goal setting is another important part of cognitive restructuring as well. It is important not to set goals that are too overwhelming for individuals since this in turn may result in increases in state anxiety which in turn may result in impaired performance. Instead, it is recommended that a series of smaller goals be set for individuals that break the task down into its component parts.

Although relaxation, imagery, and cognitive interventions are each beneficial for the purposes of anxiety reduction in athletics, they are far more powerful when used in conjunction with one another. Butler (1996) suggests a mnemonic device called PRESSURE who has a hard time coping in competitions that incorporates all three phases of intervention. The word can be broken down as follows:

- **P**repare- sportsmen must psychologically prepare for what they will face during the competition.

- **R**elax - Diaphragmatic breathing exercises may be necessary prior to competition in order to prevent over arousal which would result in deterioration in performance.

- **E**xternalize - This involves the belief that problems are not within you. This can be of assistance when athletes feel that there are too many demands that are being put upon them.

- **S**tay Positive - Acknowledgement of the importance that individuals should have confidence in their abilities.

- **S**ingle Minded - Stay focused on the task at hand. This can be used both in training and competition.

- **U**nite - Particularly useful within the framework of team's sports, this component encourages athletes to consider what roles others will fulfill and the importance of working together as a team throughout the competition.

- **R**e-evaluate - How important is this event in the real world?

- **E**xtend yourself - Give your best performance every time no matter how important, or unimportant, the competition is.

Use of this mnemonic device is warranted with individuals that have problems with the three components of athletic anxiety: cognitive, somatic, and self-confidence.

Even the amount of cognitive effort that is used by an individual to use these strategies as an effect on performance, Gould et al., (1993) reported that the differences between medal winners and non-medal winners at an Olympic wrestling competition was the degree to which the individuals used these interventions automatically such that winners were more likely to use the interventions automatically.

Most elite level performers have already found ways of achieving the activation state that is necessary for the sport. One of the things that make athletics so fascinating is the number of different demands that are placed on an individual throughout a competition. It is therefore unlikely that any one intervention will ever be able to be of benefit for everyone. Thorough assessment of the athlete's needs is therefore recommended.

Conclusion

The above research indicates that anxiety has a considerable impact on performance. Early research was limited due to a lack of clear operational definitions for the construct of anxiety. The development of the catastrophe model provides future researchers with a theoretical framework for better understanding the relationship between cognitive anxiety and somatic anxiety and their effect on performance. Furthermore, we now have the tools for better understanding the components of anxiety in the athletic context. Furthermore, the development and increased popularity of multiple baseline research designs provide a method for examining anxiety reduction interventions through cognitive-behavioral interventions with small sample sizes. Today's managed care environment has led to the development of manualized treatments for many anxiety disorders in clinical populations. Future researchers should focus on the development of manualized treatments within the athletic environment. However, this should be done with a consideration for the athlete's needs if our interventions as sport psychologists are to have their maximum impact.

Although anxiety can have a considerable impact on performance, it is important to consider other components of an athlete's functioning as well. The mental health model of Performance does this by using the Profile of Mood States. According to the model, peak performances are achieved by individuals who pose psychological states with high levels of vigor and low levels of tension, depression, anger, fatigue, and confusion. This is typically called the iceberg profile and is one method for differentiating between successful and unsuccessful performers. Although some research has indicated that this profile can not be used to differentiate between successful and non-successful athletes, evidence from Terry's meta analysis (1995) indicates that there is some validity to this profile if the sample is homogenous in ability and the sport they participate in. It is therefore necessary to consider all aspects of an individual's psychological functioning if sport psychology interventions are to have a maximum impact.

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STUDIA UNIVERSITATIS BABEŞ-BOLYAI, EDUCATIO ARTIS GYMNASTICAE, L, 2, 2005

PSYCHOMOTRICITY A SHORT DEFINITION

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REZUMAT. O scurtă definiție a psihomotricității. Din multimea aspectelor şi manifestărilor psihice ale elevilor în activitățile de educație fizică şi sport, studiul comportamentului motor etse foarte important deoarece în activitățile corporale predomină latura motrică. Reacțiile motrice sunt răspunsuri elaborate la anumite stimulări. Este deci, firesc ca întregul efect al procesului instructiv educativ să depindă într-o oarecare măsură şi de structura personalității în care aptitudinile psihomotzrice dețin un loc important.

Different autors has dealt with this issue as well and defined psychomotricity as being "the expression of the full growth and intergration of the motric functions as well as psychical at the proper level requested by the proper integration of the individual in the environment".(Epuran, 1976) The importance of psychomotric education is given by its presence among the main objectives related to physical education. In his work, Psihologia educatiei fizice, M. Epuran postulates the objective of physical education and sports, showing that the psychomotric development embodies:

a) the development of motric abilities such as: speed, strength, endurance, skill, flexibility;

b) the development of kinestesy (the complex perception of movement);

c) the development of motric skills and abilities (walking, running, jumping, throwing, climbing, pushing, pulling, etc);

d) the working capacity and coping with the movement capacity of the body is developed (control over the body, control over the environment).

Thus, psychomotricity appears as both a faculty and a complex function of one's individual behaviour. We can say that it integrates the participation of the psychical processes and functions that are responsible for both the reception of information as well as the proper execution of the response.Lets revise the components of psychomotricity, bearing in mind the fact that their analytical study will not provide with a synthesis on a subject's coordinative abilities. On the other hand, the "itineraries" which combine the most different tasks will not be so well structured and standardized in order to provide objective and valid numbers (scores).

The components of psychomotricity:

- kinestethic sensitivity;/ sense of balance; / sense of rithm and the sense of determining short durations; / limb coordination – homolateral and heterolateral;

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/ eye-hand coordination or hand-foot coordination; / overall coordination; / agility; / precision and firmness of movement; / the ability to ascertain the proper course of action in different moments of time; / laterality; / body map;

We shall not provide a full description of each of these components. Some of them are wider dealt with in other psychology works. C. Albu (1999), in his *Psihomotricitatea*, quotes A. D. Meur, who claims that the study of psychomotricity goes through four main stages. In the first stage, the research has been focused on the child's motric development. In the second, the scientists dealt mainly with analysing the relationship between motric retard development and intelectual retard development. Stage three provided studies concerning normal abilities and functions according to the age of the subjects. The fourth stage witnesses the overcoming the boundaries of standard motric problems; it deals with the connection between laterality, spatial structure and temporal orientation on one hand, and learning difficulties on the other. The research insists on the problems raised by children with a normal IQ and ones with adaptability problems concerning education.

Lafon defines psychomotricity as being the "result of the integration of the interaction of education and maturation of synergy and the conjugation of the motric functions and the psychical ones, not only in what concerns movement, but also in what determines and accompany them: will, affection, needs, drives" (quoted by M. Epuran).

According to A. De Meur (1988), the motric ability in a child is intimately connected to its intelectual and affectivity. Thus, the psychomotric way of thinking can be synthesized like:

a) the movements are in tight connection to the spirit and involve the entire personality.

b) The psychic is tightly connected to the movements that provide development.

R. Zarro's opinion (1970) will add to this picture the following ideas:
educating motricity means that we train the child for the professional tasks, but at the same time it means that we improve its physical and mental balance, we offer a gradual overcoming of its own body, we multiply its efficient relationships with the objects as well as with other individuals.This attempt of rehabilitating a human being in its global meaning has polarized the interest on psychomotricity in psychology, educational science, neuropsychology and psychoanalysis. In a way, the psychosomatic medicine has, in a way, put across this turning point in the terms of filosophy and human science; the attempt to overcome the contradiction between body and spirit, which has negatively influenced and it is still negatively influencing the meanings given to the term human being, should aim to provide a continuous comparison between the levels of structure of the personality and the stages and the patterns of behaviour between the various standards and cultural stages. Not only them, but mental factors as well interact with the vital functions such as: breathing, digestion, circulation; these functions could also be analysed in terms of motricity, thus like

aspects of mechanics-anatomy, bio-chemical-physiological, neuro-psychological. By taking now into consideration just the last aspect, we notice how attention, mental concentration or commitment in motion ca produce a hyperventilation with an ongoing tachicardia. Viceversa, a good economical respiratory control, provided by a proper training, and thus taking into consideration this type of emotion and its mechanisms, can become a means of determining to a certain extent the level of the emotional impulses. According to Martin, psychomotricity can be defined according to the following table.

Age / The functions of psychomotricity

Motric learning ability /The ability to control and differentiate / The ability to react to optical and acoustical stimuli / The ability to orient oneself in space / Rithm ability / Balance ability

Psysical abilities : Endurance / Strength / Speed

Affective-cognitive abilities

Affective-cognitive qualities / Willingness to learn

The pattern of sensitive phases (Martin, 1982, p. 51)

Starting with a reevaluation of the meaning of the tight connection between motricity and psychic, between the intelectual neuromotor development and affective one, one might take into consideration an identity, a merge between the two phenomena, an interaction between the selves or a reciprocal causality, a mere correspondence or a complementarity.

All the three types resemblant to the problem of the relationship between motricity and psychology are true because one takes into consideration the context in which we use them. In the aspect of neuro-evolution, as well as in the therapeutic one, in the aspect of the typology of the psychomotricity as well as in the pathological one, the relationship between psychomotricity and psychic can be intense in the sense of one of the identities.

a) Neuroevolution. In the first stages of life, that is in the first 18-24 months of life, there are a lot of changes at the level of reflexology, there is a rapid maturation of the nervous system, morphohistologically and functionally, there is an evolution from an archaic motility, one that is not specific, not finalized, one that is global, towards sequences of motric automated postures, towards changing the overall tonus, towards a regulation of the permanent and actional tonus, both on segments and globally. The integration and coordination of the sensorio-motric activity, which is becoming more complex, towards the acquisition of the language, cause that in truth the inteligence and affectivity, as well as the moulding of the personality to depend a lot on the organization of the motility.

At this stage, motricity means psychic or, to be more exact, the psychis means motricity; the sensorio-motric experience comes from the first encounters with the self and with the world. The sensorio-motric patterns become more and more in accordance with the stimulus and the moment of reception. The embetterment of these patterns and their transformation into what the associative

dialogue is concerned between the various sensations: the memorisation of those sensations and the englargement or the field of application, the internalisation and their representation, the organisation and the bodily representation, all these transform the motrical act into an psychomotrical one. Therefore, the neuro-evolutive stage is characterised by a precise succession of neuromotrical experience, steadfast in the case of a correct organisation, identical for all the children, but different only by its time of apparition, by the richness of outputs in the combining of patterns, either because of constitutional variables, as well as because of their personality.

In other words, this potential sensorio-motricals, intelectuals and emotionals genetically existent in the new-born would develop in a completely and harmoniously manner if the anatomo-physiological evolution of the nervous system accomplished on time in all the sectors of the development and if the environmental stimuli, either sensitive, as well as emotional, was rich and adequate. Up to the point when the characteristics of the human species are going to be differentiated and consolidated in the child, psychomotricity is an unbreakable continuum. If, for some reason, during this period, there is a stop, a delay or a regression of development, this can be seen in a learning disability which, in its turn, will be manifested in the form of disfunctions at perception-motricity, intelectual and emotional levels.

b) Therapy. Any organic or functional lesion during this period of evolution, which can act like a specific sensory deficit and which can involve other functions as well, needs a proper motric education, which has to contain also a psychomotric education; in other words, a global education, that takes into consideration, besides the primary trauma, the secondary ones as well and also the third trauma that resulted from the relational pathology; that is the imobility pathology – the pathology of an activity based on compromise patterns – the pathology of lacking.

But even in the last stage of the development, any specific psychomotric component, whether it is organic or funtional, primary or secondary, will be treated by whatever technique, the identity between the motric and psychomotric behaviour being present, in the sense that any movement cannot be dissociated by the psychic that produces it and involves the entire personality. Thus, any psychic cannot be dissociated by the movements that define it and defines its development and it is, at the same time, a constructive and shaping factor.

c) Types of psychomotricity. We have to take into account that every action, so elementary and so complex, voluntarily acted or automated, gains its particularity as a result of the individualism. Everyone has their own favourite resting position, their own way of body-language, their gait, their handwriting. When speaking about psychology of movement, each can express and achieve themselves in the world, by movement, in their own way and the same personal way is involved in deciding and targeting a certain goal, in living and in using past experience of their own body.

De Lisi, quoted by Ellete Borgogno (1985), places this physionomy or motric personality into the variables of neurological organisation. Other factors guard upon determining the motrical style: race, culture, education, social environment, vegetative

constitution, nutrition, sex, age, certain characteristics of the character, etc. De Lisi has distinguished among five fundamental biotypes (the nervous one, the dinamic one, the static one, the lazy one, and the late one), based on the two quantitative variables of constitutional emotivity (strength and speed), and on the two qualitative ones (ability, unconscious instinctive motility).

De Besse (1981) speaks about four types of motric behaviour, based on the combination of neural tonus and the level of inhibition: the sensitive type, the impulsive one, the tensive and the static. The sensitive type (with a low tonus and too much inhibition) is a person who is sensitive, suspicious, a bit uneasy, often shy, humble, sometimes autistic, chymeric, symbolic, always receptive, with an unrestless attention, taciturn, but capable to live; can be more inclined towards the arts than the technology and science.

The impulsive type (with too much tonus and a low degree of inhibition) may present psychomotric restlessness, instability, but also a taste for conquests, amibion, willingness for achievement; their hands act before the mind, this is the sangvinic or the action kind of person.

The tensive type (too much tonus and inhibition) is inclined towards uncontrolled movements; they are apparently calm, but no focus, a rigid character, difficult, unforgiving, a little expansive, sometimes shut and internalized, may present explosive epileptic reactions.

The static type (not enough tonus and inhibition) is the lazy one, the one that shows moderation and caution; has little initiative but gives wise advice, is tolerant, more speculative than active. It can be a limphatic type.

Dublineau, quoted by M. M. Formica et al. (1985) distinguishes between two characteristic types: the emotional-motric one and the instinctive-motric. The emotional-motric one is delicate – fragile, passes from asthenia to turbulence, may have a dissociation tendency. The instinctive-motor type shows instinctive motor reactions in an aggressive manner, presents a basic hypersensitivity, suffers from kinestetic disabilities, but manifests a change in humour. Usually, this type is robust, often instable, but reactive.

Ajuriaguerra (1980) suggests, according to a psycho-emotional psychology, the following subdivision: the athletic type, hypertonic, similar with the motor instinct (it is slow, clumsy, strong), the hypotonic-asthenic-passive – corresponds to the adult psychoasthenic type (clumsy, soft, hyperextensive, with oscilating movements); the dilate type, close to the motor-emotive type (agile, able, most of the times he is hyperextensive, with frequent “performance reactions”, which limits the restlessness); the longilino-muscular type (agile, able, with normal extensibility, the agility is often reduced because of the “performance reactions”).

Just by these examples of how the typology is classified, which should lead to a scheme for the motric personalities faster or for the types which, as Wallon says, stand between the extreme of normal psychosomatic constitution and the extreme of pathological syndromes of motor deficiency, show us how the unifiying

attempt of the different aspects of the motor personality in what the behaviour is concerned leads to an inescapable language confusion. In any case, the attempt to identify the motric-psychology and the explanation of the extreme variables of the human psychomotor behaviour, which we have given in this incomplete review, seems mostly important because it emphasizes on how the borderline between physiology and pathology is no longer a well defined one and one belonging to the judgement of a social operator, on any motor reaction, psychomotor or, to be more honest, a psychological one of a child or an adult, and claims the knowledge of different evaluation patterns, the clear usage of different languages, the capacity to come back to the causal factors innate in the neuroevolutive, psychogenetic and psychodinamic history, as well as in the history of the environment of the child or the adult with which it prevents any superficial minimisation, as well as any pathological superficial labeling.

But the objectivity of any judgement on any of the reactions of any person, based on the knowledge of the various interdisciplinary interpretative patterns, will never be capable of a total involvment in its observations, because none of the reactions can be evaluated objectively but in the context of the moment of observation, which is especially a specific moment and perishable of interpersonal reaction.

We must reveal the fact that whoever wants to involve themselves in an educative relationship and therapeutical relationship in the field of psychomotricity must be aware that to look for the significant essence of a behaviour that has escaped the classical evaluation sectorial standards means, above all, not to throw away the entire traditional system of information, but to know how to interpret it in an interdisciplinary and dinamic connection and most of all, to be able to observe every body expression during free movement, the mimics, the gestures, dancing, playing, drawing, music, etc, any significant relational moment, that cannot be anyway assumed in isolation, but as an overall and global judgement.

d) Pathology. Almost always we notice that self control over our own body and on our own motility are related with the control over the vital functions, most of all over breathing. We think now to the respiratory insufficiency, so oftenly noticed, to the mental insufficiency, to their capacity to breathe through the nose, to adapt the diaphragmic and intercostal movements, to control the rhythm, amplitude and frequency of the breathing.

In any organic cerebral lesion during the evolutive period, even if it is not associated with the mental insufficiency, the control over the breathing is not enough and this is valid not only for the toracical and abdominal damages, consequences of these motor lesions, but also for the intercurrent infections. Apart from these and the mental insufficiencies, it is almost impossible not to check for any motric tonic disfunctions: funny walking, insufficient static and dinamic balance, poor eye-hand coordination, the presence of sincinesis-paratonia (the impossibility to relax either secventially or globally), not to mention numerous diformities that accompany the mental insufficiency: dismorphic outlook, hunchbacks, flat feet, toracid diformities,

hypotonia of abdominal muscles or, indeed, an extrapyramidal, frontal, pyramidal symptomatic nuance. Another example of a reciprocal influence motricity-psychic can be found in the tonic regulation, both posturally, standing, as well as in sustaining and regulating the automated, instinctive, mimical and verbal movements, stereotypical strange movements, etc.

Viceversa, any organic lesion, even limited and apparently situated in a place where it cannot have any repercusions on the evolution of the subject's life, may have psychical consequences totally different than the ones which have been predicted: on one side, this can be blamed on the different components of the chonicisation process, which accompanies every disability type (type, intensity, evolution of the real damage and specific – the imbalance of the functional equilibrium – the imobility pathology, both somatic and relational). On the other side, any psychosomatic consequence or a specific and real psychopathology is to lead to the adapting syndrome or to the psychosomatic reaction of the exogenic noxes, which is more or less diproportionate with the lesion event. The adaptation syndrome may depend on the frustrations connected to the approaching or drawing far of the preexistent conflicts, on the degree in which the self image has degraded itself, on age, sex, socio-cultural background, type of work, the age of the Self, etc.

Psychic development, the absence of bodily integration and an incomplete image of the self, can influence the cognitive activity and the future relations. All the infant pathologies which had a long duration should involve an investigation and a diagnosis of pshychomotric development and therapy, if it is the case.

If we concentrate one the fundamental basis of psychomotricity and psychomotric education and reeducation (the body as a development in itself – the study of the stages of differentiating the entire body from the object – living that uniqueness – of knowing the entire body and the articulation of its segments – of identifying the bodily self) we realise that the very issue of the body, the equation of the motricity and psychc cannot be solved neither by identity, nor by interaction: without a doubt, we should adopt, as Piaget (1965) does when studying the mental development of the child, starting from the psychomotric development – the term *complementing*.

The body is not only an integrator of perceptions from outside and from within, but also a continuity of temporal perceptions, resulted above all from a change, more or less rapid, in the spatial balance. Temporality is consonant with the body, even in the sense of an agreement with the present: just as Bergson was saying, quoted in Elleta Borgogno (1985) "my present means my sensation that I have in my body". Among other things, the diagram of the body may be regarded as complete knowledge in relationship with the thought and with the language. Ajuriaguerra (1980) refers to this in order to demonstrat that a notion like the body diagram requires a connection with psychology, psychotherapy, neurophysiology and neuropathology, precisely because its complexity, and cannot be confronted and solved with that method of continuously passing from the neurophysiological valorification to the psychological one with with we were accustomed to believe

was alwalys applicable to any living phenomena, specific in a certain development situation. The psychophysiological parralelism of Gesell and Wallon (1975) must be seen as a mere comparison between the stages and levels that were studied as compared to the various perspectives.

Apart from this, in the practical area, it is not always true that a prevented or delayed sensory-motric development will also prevent mental development. The same stages of psychomotric development or the babytests which evaluate the motor behaviour of the first childhood as the biological equivalent of inteligence, aren't in fact evidence of a certainty and validity from the point of view of the prediction (apart from the case when the development deficit is severe and uniform).

For Piaget (1979), the psychophysiological parallelism is not an applicable system in physiology: the consciousness acts – he said – upon a physiological process, similar to attributing force to the consciousness, which has to be a measurable quantity, dependable on the material world; to say that an organic process acts upon the conscience, equivalent to admitting that, in conscience, the material consequences of the process find an applicable point to which nature is homogenous.

It is likely that the problem of psychomotricity, its genesis, as well as its physiological and pathological manifestations, would not be solved with logical and rational parameters, but it is certain that this exigency for unity and globality in the research of human beings, of becoming and of its present in the intra and interpsychical dimension of the capacity or incapacity of an incomplete accomplishment, needs a contemporary vision that is balanced and invisible from a psycho-neuro-biological point of view and that the normal and pathological processes that concern the human being to be welcomed according to all the scientifical contemporary perspectives, from which it will not be allowed bias, ambiguous, superficial, confusing and unsatisfactory interpretations.

The evolution of psychomotricity, understood as an interaction between growing up and learning, interaction that allows a permanent knowledge of the self and of the world and a progressive social accomodation by integrating the motor activities with the mental ones and with the structure of the personality was rewarded by Piaget's theories, Wallon's and Ajuriaguerra. The first emphasized on the structures of the accomodation to the reality; the second on the positive role of the emotions sustained by the tonus and the postural functions; the third one on the tonic organisation of the fund, on the development of the kinestetic melody and on the automation of the motor act .

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STUDIA UNIVERSITATIS BABEŞ-BOLYAI, EDUCATIO ARTIS GYMNASTICAE, L, 2, 2005

L`IMPORTANCE DU DEMARCHE PEDAGOGIQUE ET LES VOCATIONS NECESSAIRES AU COURS DE L'ACTIVITE PROFESSIONNELLE D`UN KINESITHERAPEUTE

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REZUMAT. Importanța demersului pedagogic şi a vocațiilor necesare în cursul activității profesionale a unui kinesiterapeut. Din momentul în care în cadrul kinetoterapiei active bolnavul poate executa singur exercițiile corective, pe baza abilităților redobândite, se pune întrebarea: Care este rolul kinetoterapeutului, în asigurarea recuperării bolnavului în mod cât mai rapid şi mai eficient ?. Subliniem aici disponibilitățile, abilitățile, calitățile şi tactul pedagogic de care kinetoterapeutul trebuie să facă dovadă, pentru că, acestă profesie este, de fapt, *vocție*.

Lors de l'exécution des exercices de kinésihérapie active, le travail musculaire du patient étant accompli grâce à ses propres forces, on peut s'interroger sur la nécessité et le rôle du kinésitérapeute.

Sa présence est cependant nécessaire. Le kinésithérapeute a un rôle pédagogique, mais également un rôle de contrôle dans la réalisation des exercices. Ce contrôle assure une éducation plus rapide et de meilleure qualité. Le rôle du kimisithèrapeute ne se resumer pas seulement à une fonction de contrôle, il a, avant tout, un rôle de commande et de choix des exercices.

Le thérapeute choisit le type de travail en fonction de la spécificité musculaire du groupe réentraîné, en tenant compte de la pathologie interdisant ou empêchant certaines activités musculaires. Le type de travail choisi ne doit pas être limité à une seule possibilité si plusieurs d'entre elles sont réalisables.

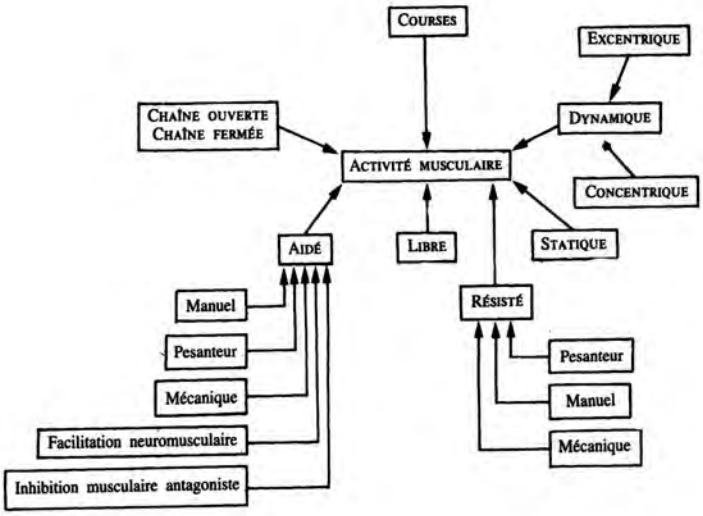
Les types des activités musculaires.

En fonction du but recherché, le travail musculaire s`obtient par des méthodes différentes:

- Méthodes sélectives
  - techniques analitiques,
  - techniques globales
    - mouvements polyarticulaires,
    - proprioceptive-neuro-facilitation,
    - equilibration et stabilisation.
- Méthodes fonctionnelles
  - coordonation,
  - reprogrammation neuro-motrice
    - traitaments palliatifs,

- réentraînement à l`effort,
- exercices à objectif multiple(musculaire, vasculaire, adaptation àl`effort, respiraroire etc.).

- Tehniques actives particuliers
  - mécanique
  - électronique
  - hidrotherapie



Le terapeut diot fait appel à différentes qualités, qui doivent être développées s'il désire que son action thérapeutique soit la plus efficace possible.

Qualités nécessaires au kinésithérapeute sont tres diverses:

GOUT DU CONTACT MANUEL

Pour le goût du contact manuel, qualité qui se retrouve en kinésithérapie active, il faut que le kinésithérapeute ne pas avoir de répulsion au toucher de malade car les exercices demandés la palpation ou résisténs manuellement. Le contact manuel peut aller jusqu'au contact corps-à-corps. La sensation d'effort dans un but commun favorise la participation du malade. Si le thérapeute s'exclue de ce dialogue gestuel, il perd la capacité de fournir au malade une motivation supplémentaire.

AISANCE GESTUELLE

Le contact manuel se réalise si le thérapeute possède une aisance gestuelle. Cette qualité est la conséquence de plusieurs notions distinctes qui¸ forment une habileté gestuelle. La connaissance de son schéma corporel permet au thérapeute de commander un exercice mais également de pouvoir mieux en vérifier l'exécution et,

en le transposant au malade, d'adapter, de modifier, de personnaliser l'exercice. La perception du schéma corporel doit être complétée par une bonne spatialisation. L'aisance gestuelle est nécessaire à faire la démonstration de l'exercice .

La coordination motrice du thérapeute est la conséquence directe de la connaissance de son schéma spatial et corporel. Elle est nécessaire dans les exercices qui font intervenir les déplacements dans différents plans de l'espace ou qui combinent le déplacement de plusieurs segments en même temps, et dans ceux où l`on fait intervenir une résistance manuelle. Le sens du dosage de la résistance permet de savoir à quel moment l'exercice peut être intensifié ou, à quel moment la résistance doit diminuer pour permettre la poursuite des exercices.

MOTIVATOIN

La motivation du thérapeute doit engendre celle du patient. Si le thérapeute ne croît pas à ce qu'il demande a son malade, il ne peut espérer une participation totale à la réalisation des exercices. Cela est surtout valable pour les exercices répétitifs. Si le thérapeute, ne parvient pas à transmettre au malade sa conviction de leur nécessité, il risque de se heurter à une passivité du sujet .

PATIENCE

La patience est une qualité nécessaire dans toutes les activités pédagogues. Elle est encore plus indispensable car cette activité s'adresse à des malades dont les troubles fonctionnels peuvent influer sur le comportement relationnel. II faut savoir répéter, avec pacience, les explications les demonstrations ou les ordres donnés à un malade.

DEMARCHE PĖDAGOGIQUE

La pédagogie, au sens général, est l'éducation des enfants. Ce terme peut néanmoins être étendu à l'ensemble des patients quel que suit leur âge. La pédagogie utilisée en kinésithérapie active doit respecter différents concepts. Ce respect permet une communication plus claire entre le thérapeute et le patient. Cette communication passe par *le langage* et par *le dialogue gestuel.*

LANGAGE

Le langage employé par le soignant doit être simple, concis el compréhensible par tous. Cette derniére notion exclut a priori le vocabulaire professionne (ex. abduction de la coxo-fémorale = d'écarter la jambe).

Le thérapeute doit savoir adapter son langage au malade. Il doit utiliser un langage imagé et le choix des termes employés doit être judicieux. L'adaptation du langage au patient peut influer sur sa motivation à réaliser les exercices. Certains malades réclament une explication approfondie. C'est lorsqu'ils auront compris l'intérêt de l'exercice demandé que leur participation sera pleine et entière. Dans ce cas, le thérapeute doit décrire sa démarche thérapeutique le plus simplement possible en tenant compte de la capacité de compréhension du patient. Au contraire, des explications trop longues décourageront d'autres patients. Ces explications seront même un obstacle à la bonne réalisation de l'exercice. C'est le cas de tous les exercices qui doivent être automatisés.Le traitement kinésithérapique proposé au patient n'est

parfois pas compatible avec les explications. Le choix des exercices proposés lors d'un traitement est toujours guidé par l'objectif final que le rééducateur s'est fixé. Le thérapeute doit garder les idées claires sur sa démarche thérapeutique. La progression des exercices peut suivre deux démarches différentes: commencer par des exercices simples, puis passer aux exercices complexes, ou inversement. Néanmoins, dans son arsenal thérapeutique le rééducateur doit préférer, à valeur rééducative égale, les exercices simples. Mais les exercices complexes ne doivent pas être écartés du programme de rééducation. Ils ont parfois une valeur rééducalive par leur seule complexité. C`est le cas lorsque l'objectif est la recherche de la synthèse du mouvement par le patient dans le but de coordonner un geste élaboré.

DIALOGUE GESTUEL

L'enseignement du geste doit suivre différentes étapes:

Communication

Le kinpsithérapeute fait connaître au sujet le bu't à atteindre. C'est à ce stade que le choix du langage a toute sa valeur car il permet une communication de bonne qualité entre“l`emetteur-thérapeute et le récepteur-patient”. Parfois cette commumcation est réduite au simple contact manuel suivi d`un ordre bref.

Concept idéo-moteur

C'est le stade de conception mentale de l'exercice par le sujet, de la conception des chaînes musculo-articulaires à mettre en jeu pour réaliser cet exercice. C'est à ce stade que les schémas spatiaux et corporels antérieure, du patient prennent toute leur signification.

Si l'exercice demandé est connu par le patient, sa tentative de réalisation est simple. Si l'exercice est nouveau, les étapes suivantes de la stratégie pédagogique prennent de l`importance dans l'éducation gestuelle du patient.

La tentative est pour le patient sa première confrontation entre le concept de l'exercice et sa réalisation. Cet essai lui permet d'analyser les sensations perçues et son taux de réussite d'exercice. Le système feed-back créé peut notablement influer sur le taux de réussite des exercices suivants.

Correction

Le sujet s'autocorrige par le système feed-back au cours de la réalisation de l'exercice mais intègre également les informations pour corriger d'éventuels exercices similaires. La correction peut être faite par le thérapeute en indiquant au malade la bonne ou la mauvaise exécution du geste demandé.

Le thérapeute a tendance à penser naturellement que sa correction de l'exercice est le temps essentiel. La distorsion de la communication peut provoquer une incompréhension mutuelle. Il est préférable de faire appel à la système feed-back du malades en les situant devant un miroir pour leur faire constater le déséquilibre. Ce n'est que dans un deuxième temps que le malade, déjà éduqué, pourra se corriger seul sans contrôle visuel. Le but de cette correction est de pouvoir passer à l'étape suivante; la répétition.

Répétition

Cette étape est nécessaire dans plusieurs buts: elle permet l'entraînement du patient: rééduque sa force, son endurance à reproduite un exercice, perfectionner le geste et à rechercher le moindre coût énergétique.

Automatisation

Notre organisation gestuelle est basée sur une masse importante d'automatismes qui nous permettent une économie de gestes volontaires**.**

Le geste répétitif, dans un souci d'économie, va être rapidement automatisé. C'est cette automatisation qui va permettre ainsi réellement au malade de profiter de l'acquis de cette rééducation.

CONCLUSIONS

La confrontation avec les malade permet d'affiner les vocations nécessaires au cours de l'activité professionnelle d`un kinésitherapeute. De plus, les contacts répétés avec des les enfants par exemple, apprennent au thérapeute les ressorts pédagogiques. C'est là un des acquis de l'expérience professionnelle.

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STUDIA UNIVERSITATIS BABEŞ-BOLYAI, EDUCATIO ARTIS GYMNASTICAE, L, 2, 2005

PSYCHOLOGICAL PREPARATION IN JUDO

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REZUMAT. Pregătirea psihologică în judo. Titlul lucrării este- Pregătirea psihologică în Judo. Simultan cu amploarea pe care a luat-o sportul de performanță a început să vorbească tot mai mult de însemnătatea factorului psihologic în pregătirea sportivelor de performanță, fapt care a determinat efectuarea a numeroase studii şi cercetări concretizate în adunarea unui bogat material faptic constatativ dar şi cu pronunțat caracter aplicativ.

Introduction

Simultaneously with the amplitude on took the sport of performance, it started to spoke more of the importance of the psychological factor in the process of preparing sportsman of performance, which caused the effectuation of numerous studies and researches wich brought together a rich additional material of constatitiv facts, but also marked with applicabile characteristic.

In the theory and metodics of the coaching of cotemporary sportsman is spoken" of total training what notion expresses suggestively of a big number which elements must be developed in the process of preparation, among which figures, indisputably, the psychological element or psychological practice"(1, page.230).

Conceived with deep significations, the psychological practice has became one of the factors of the practice of high performance sport, so much discussed, but even more opened for perfecting and realizeing in the sport competitions.

The aim of psychic preparation of the sportsman discloses the elemental features of the concept, wich facts define it." The preparation of the psyche causes, through the middles of the practice and of the educational actions, breed the capacity the psyche wich permits the sportsman to develop efficient actions and obtain of a superior results in contests."(6, page 105). This factor contribuit to the formation of the sportsman personality, a capacity of self-leading and self-adjustment, indispensable in the plenary realizeisan of his physical availabilities and the technical-tactical luggage of knowledges .

The capacity of the sportsman to support the big values of the volume and intensity of the efforts in the lengthy trainings, the hardness of the contests represent in first place the consequence of the preparation of the psyche, what which models it's consciousness, fortifies it's temperamental caracter, disciplines it's attitude and increases it's motivation. His accommodations to the stress of the contests and the

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practices form, in good measure, the effect of the preparation of the psyche, of wich content and methodology they improved interminably in this intervel of time.

The psychological preparation of the sportsman.

Can we inquire why is important the psychology as part of the preparation of the sportsman? – the answer could be that the psychology can help the coach in many usefull directions:

- knowing more deep the sportsman and, in main, knowing it psychologically, the features of personality loked uppon evolutional and differential;
- detach the directions and pathes of conduct and achieve the development and the preparation of the psyche in accordance to the social aims and thouse specific the sport;
- a realization of the superior psychic capacities of the requirements of the sport of performance;
- knowing the mechanisms and pathes of achieve the complet preparation as the process of training and educatione;
- the formation capacity of self-adjustment and self-education;

"The psychological factors of coaching are differentiated in depending on the other components wherewith does the common bodies."(1, page 231.)

Therefore I will prezent the psychological content of the components of the practice of sport:

- *The psychological content of the physical preparation.*

From the definition gived to physical preparation follows that this continuations the development motrical qualities, morphological indexes and the capaciti of efort. Therefore, the psychological base of the physical preparation is determinated of abilities, kinestezics, the corporal scheme, capacity of coordination, of equilibrium, time for reaction.

- *The psychological content of the technical preparation.*

The technique is a method to accomplish a certain motion. It has at base the learning prosece, in it's meny forms. Therefore, we could discuss to the technical preparation of the psychology of learning, of evaluation, of the formation of skills and abilities.

- *The psychological content of the tactical preparation.*

This component has most gathered relations with the psychological preparation because is, in substance, a mental activity guided toward the solution of problematic situations. Among the involved factors the one by-pathes of informational, decisional and regulator nature Therefore, it is about of attention, percepcion of situations, knowledges, comprehending, capablities, lucidity, affective mastering.

- *The psychological content of the theoretical preparation.*

Starting from the idea that the theory describes and explains the process and the phenomena what compose an activity, from the psychologicall point of view is presented in the following: the appropriation of the general and specify knowledges of the respective sport; knowledges about the functional activity of the organism; notions of technique and knowledges about the theoretical activity.

♦ *The content of psychological preparation.*

This consists of the following: the development of psyche capacity below informational, and regulator appearance; intellectual, affective, volitive preparation and the features of personality; the development of self-adjustment capacity.

Also, in the content of psychological preparation enters the psychological assistance through psycodianozes, the basical, the specifical and the contest psychological preparation, as well as the psychotherapy.

The levels of psychological preparation

All the same of level and of experience, the sportsman must be prepared according the peculiarities of age, value of the performances and contest objectives. Therefore, the psychic preparation of the sportsman is achieved gradually, in more stages.

♦ *The basic psyche preparation* contains the ensemble instruments and the used methods for the formation of the sportsman personality, of his characteristic features. Child, junior, senior the sportsman has to demonstrated as "an awake citizen of his animated indebtedness of respect against collegial of labor, of the writen and unwritten laws of the country what governs the life of the community from which it is part, punctuality, industrious, humble, serious, soulfully patriotic through attitude, eager of progress, with responsability against the scholastic and professional obligations, disciplined, correct, with the sense of houner, integrated vocationally and social."(6, page 106.)

On this background of qualities will forme and develop thouse specific or differentiate of needs of the sport's performance.

♦ *The specific psychic preparation* of the sport branchies or proof consists of "the development and the perfecting of the psyches qualities which conditions directly the performance."(6, page 106). All the branches and the proofs have a complex of abilities and deep specific attitudes. The psychological analyses of the sport proofs, such psychological monographes of the sports emphasizes the psyches qualities which conditions the performance and which traces to be developed just with this purpose.

♦ *The preparation of the psyche for the contest*. The threerd stair totalizes as much the preparation for contest below general appearance, but also to a certain contest.

The preparation of the sportsman for contest, the formation of a system of attitudes and specific conducts contribute largely to this assertion. In the end, it represents the big finality of the practices, of the investments of biologic orders, intelectual, volitional and affective. Last three compose the factor of the psyche, figured in the whole economy preparation, amplifying considerable the volume and the quality participation of the sportsman to the realization of desirable performance.

Between this three stairs of the psyche preparation exist a hierarchical relation of condition in scale. We must not negligent the reciprocal influences, but the basic

psyche preparation remains the stair where of starts the whole process and on which it shall rest all, indifferent of the age and the competitional value of the sportsman.

The components of the psyche preparation.

The psychic preparation of the sportsman is structured on the following components:

- *The psyhomotrical preparation* – it has enforced it's self in the last years pursuant to detailed analysis of the technical-tactical conducts from wich resulted the craftsmanship of the executions, technical acts depends on the development of a psyhomotrical leadings degree functions, wich are: the corporal scheme, chinestezics, the static and dynamic equilibrium, the space perceptions, time for reaction, the anticipation and coincide, the speed of execution and repetition;
- *The intellectual preparation* - consists of the development of the functions and the mechanisms of cognition and appreciation-decision. Such a preparation follows the development of the attention, of the specialize perceptions, the thought as the process of rational and operational cognition, wich presupposes in the same time creativeness and decision, as the stimulation of the memory and the imaginatione, all to the level specific solicitations activity sportsmans of performance;
- *The affective preparation*- has the fate to develop the regulator function of the affective sphere represented of disposals, emotions, feelings and passions. Affectivety in the relation with the cognitiv and volitive functions- also influences the qualitative parameters of any kinde of selected activities of the sport. For the psychic preparation of the sportsmans is enforced the development of affective states with positive characters, the creation of a good disposals during the training, that of a affective practice equilibrium, emotive stability and capacity of master and controle the negative emotions, so disturbing in contests;
- *The volitive preparation*- this constitute the support the sportsman obligation in the realization of a big and maxims efforts, unbrokenly and drawers obtain the current performance of sportsmans. The regulator function it will be demonstrated through the equilibration of the two directions active- of the activation of creative energies, and passive, to endure pain.

Among the qualities I will remember are thouse wich are demand by the practice and the conteste of the sportsman: the orientation toward established conscious aims, the perseverance, the firmness, the courage, the initiative, the patience. The volitional acts conditions not only the development of the motrical actionas, but also the learning of new technics;

- *The development of the personality features*- it is a complex objective, which form and perfecting represents the central preoccupation of all the educative factors, including the coach, too. The personality features of the sportsman are: the conception about the world, the interests, motivations, the attitudes, temperamental particularities, specific aptitudes, the temperamental features, the self consciousness, discipline.

The psychological preparation of the Judoka

To influence the psychic state of the judoka is a contiguous requirement as much in practice and as in competitions, in the aim to insure of the proper level of the psyches process and states, which have as the output a roundabout and efficient efforts, as well as a behaviour constancy to the standard parameters of the contest: the category of the competition, the level of preparation, the potential opponents, the conditions of development. As important constitutive the practice of the sportsman, the psychological preparation in the judo follows:

- the development of the sportsman personality;
- the development of the capacity to defeat the difficulties from the practices and the contests, through the mobilization of physical and psyche funds for the realization of the preparation objectives;
- the optimization of the psyches process and states of the sportsmans outfaced the varied situations of the competional fight;
- to favourite the correct appropriation, in varied conditions, in the sight to obtain the maxims performances of the motrical and technical abilities.

The psychological preparation is achieved in contiguous way in the frame of the process of practice. The development of the necessary psyche qualities of the judoka- the initiative, capacity of quick decision, quickness in thought and act, courage, self-control, combativeness, emotive equilibrium- is achieved permanent, in all the moments of the lesson, in every hire and exercise whereat is subdued the sportsman.

Used means in the psychological preperation process of the judoka

The necessary psyches qualities the of a judoka can grouped in:

- *Psychic volitive qualities* which are essential and necessary by-pathes of a performance judoka. For the education of these qualities, the coach solicits the sportsman to take part in efforts with increased degrees of difficulty, through:

- practices of general physical preparation arrenged in particular situations, such as: runing in adversely meteorologycal conditions- colds, snow, rain-or on difficult acclivous grounds, on sand;
- series of Uchi-komi with heavier partners;
- rounds of Randori with stronger partners;

Educate to make efforts of will, intensely and roundabout, represents the main objective of the instruction and the preparation of the judoka for the competitions of big performance.

- *The psyho-intellectual qualities* which are also absolute necessary of a sportsmans appropriations. These performance qualities can be educated and in the process of practice through certain specific means:

- the observation and analyses of the Randori and Shiai done by his mates or opponents;
- the research of the video registrations with the evolutions in contests of famous champions;
- rounds of Yaku-soku-geiko for the solution of a heuristics situations of fight;

♦ Psyho-affectiv qualities: confide in the personal possibility, the spirit of fair-play, responsibility against preparation and behavior in contest, the honesty, are thouse qualities which can be perfected in the process of practice through the creation of a real or imaginary situations enforced by the coaches:

- training with cooperetive partners;
- practicing with partners an whom it can be applied successfully diffrent technics;
- friendly contests with equal value sportsmans;
- the settlement of realizable norms and control proofs;
- the preparation and support of the belt examinations;
- to reward and premier for the special results obtained in practices and contests;
- to entrust reliable tasks: leading the warming up, the arbitration of the Shiai.

For the education of honesty, of the spirit of fair-play, don't deprived of interest, give the sportsman examples of famous champions and their way of behavior in the contests of great importance.

Conclusion

In conclusion I would like to underline the fact that based at this toretical facts in this prezentation the psychological preparation in sportis very complex, because in the end the human psyche is very complex to.

This teoretical knowledge is a great importance for sport coaches, because they are working all the time with the sportsman.

As a final conlusion we could say that an appropriate psychological preparation of the sportsman, with a suitable caracteristics of the sport branch, can cause an increase of performance in the training but also in the competitions.

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STUDIA UNIVERSITATIS BABEŞ-BOLYAI, EDUCATIO ARTIS GYMNASTICAE, L, 2, 2005

CONSIDERATIONS REGARDING THE LEGAL PROTECTION OF SPORTS CREATIONS IN ROMANIA

VOICU ALEXANDRU VIRGIL[1]

REZUMAT. Consideraţii privind protecţia juridică a creaţiilor sportive în România. Protecţia *creaţiilor sportive, operelor coregrafice* şi a *pantomimelor*, a *numerelor de circ*, asemănătoare din multe puncte de vedere, o identificăm în principalele izvoare formale ale dreptului european. Asemănător acestor izvoare de drept, legea română, respectiv Legea nr. 8/1996 a dreptului de autor cu modificările ulterioare, în art. 7, lit. d, consacră caracterul de *obiect al dreptului de autor* operelor originale "de creaţie intelectuală în domeniul literar, artistic sau ştiinţific, oricare ar fi modalitatea de creaţie, modul sau forma concretă de exprimare şi independent de valoarea şi destinaţia lor" în care sunt cuprinse şi pantomimele. Lucrarea îşi propune să argumenteze faptul că, în cazul unor anumitor sporturi, dacă acestea îndeplinesc vocaţia de operă protejată, creaţiile sportive pot fi calificate ca opere protejate de legea dreptului de autor. Astfel, propunerea noastră de *lege ferenda* poate fi considerată un demers în vederea armonizării legislaţiei româneşti, privind protecţia dreptului de autor, la legislaţia comunitară.

All efforts aimed at identifying the general framework which would set forth the basis of authors' rights, within Roman or Ancient Greek legal institutions would be pointless.[2] These rights in essence came into being only upon the invention of the Gutenberg printing press, "*which was immediately accepted and its use became widespread in the entire civilized world with remarkable speed.*"[3] From this moment forth, all those who directly or indirectly obtained legitimate profits from their respective intellectual endeavors, felt the need to resort to social protection measures. On the other hand, the authorities have the obligation and attempt to assuage, "*the glow of this splendid and terrible meteor*" through a combination of "protective measure" through the use of threats and interdictions in favor of or to the detriment of writers, publishers and bookshops."[4] At the end of the XVIIth century the concept of intellectual property was born, and at the beginning of the XVIIIth century the first scholarly writings on authors' rights themselves began to appear. "*Although theft was considered to arise if another person's work was utilized without permission, this did not only relate to moral punishment. Rather, the idea that the work*

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[2] Eminescu, Yolanda, *Dreptul de autor. Legea nr. 8 din 14 martie 1996 – comentată*, p. 18 and the following pages, with cross reference to Adolphe Breulier, *Du droit de perpetuite de la propriete intellectuelle*, Paris, Auguste Durand Libraire, 1855, p. 17-23 and Eugen Ulmer, *Urheber und Verlagrect*, 3. Aufl., Berlin, Heidelberg, New York, Springer Verlag, 1980, p. 50-51.

[3] Ulmer, E., *op. cit*., p. 51.

[4] Adolphe, B., *op. cit*., p. 23.

itself would remain as the author's property, even after the sale of a copy, was recognized from this time forth"[5] In France, the *Decree dated July 10, 1793* represented "*foremost the regulation of authors' rights*" applicable to all categories of works.[6] In the legislative history accompanying this *Decree*, the principle was proclaimed that "*from all types of property, the most susceptible to a challenge is, without doubt, that arising from the genius of human creation; and it is a wonder the fact that it was necessary that this type of property be recognized and to ensure, through a positive law, its free exercise.*"[7] After the passing of a considerable amount of time, on the basis of the French example, authorship rights also became protected by statutes in English, the U.S.A., Germany, and a bit later on, in Prussia in 1837.[8]

In Romania, prior to the precise law on point, authorship rights relating to literary and artistic works were regulated by the *Law on the Press [Media] dated April 13, 1862*. On June 28, 1923, the *Law on Literary and Artistic Works* came into effect, which [at that time] was [widely] considered to be, "*one of the most complete and modern statutes pertaining to authorship rights.*" This law was characterized by two essential elements: "*authorship rights were protected independent of any effectuated formalities, while the rights arising from this protection were recognized not only vis-à-vis [Romanian] nationals, but also with respect to foreigners, without any reciprocity requirement.*"

After the short presentation regarding the socio-historical background giving birth to the idea of the right of authorship, as well as the promulgation of the resulting legislation, we deem as quite enlightening the affirmation made by A. Kéréver that "*the right of authorship was born as a result of the interaction between a technological revolution (the appearance of the printing press), a cultural revolution (the appearance of a public who appreciated culture), a political-philosophic revolution (the recognition of an individual's rights, the ideology of liberty and equality under the law), as well an economic revolution (the appearance of capitalism with its free market economy).*"[9] Pursuant to the above-mentioned and knowing the importance of the social phenomenon that is sporting activities, especially taking into account that this is considered to have an [important] cultural effect, starting from the premise that every person has the right to participate in the cultural life of her/his community and that always such persons have the right to enjoy the protection afforded to the moral and material rights arising from scientific, literary and artistic [works], and as such we cannot decide not to try, as is the situation in other jurisdictions, to protect sports creations whether belonging

[5] Eminescu, Yolanda, op. cit., p. 20, with cross-reference to Ulmer, E., p. 54-55.
[6] *Ibidem*, with cross-reference to Breulier, A., op. cit., p. 30.
[7] Eminescu, Yolanda, op. cit., p. 20.
[8] *Ibidem*, p. 22.
[9] *Ibidem*, p. 4, with cross-reference to the works of the Brussels Congress, *Proceedings of the international Colloquium Author's Rights without author*, published by INTERGU (Internationale Gesellschaft fur Urheberrecht), Bruxelles, 1993, p. 25.

to natural persons and, under certain conditions, to legal entities[10] on the basis of the following:

A. As a general consideration, which can be found or results from the various existing legislation in this area, the object of authorship rights includes *literary, artistic and scientific works*, irrespective of the form of expression, the value or the intended audience or use. From an analysis of the applicable rules currently in force, it may be ascertained that three essential conditions are necessary for the right of protection to arise, as follows: (1) the work must result from a creative endeavor [of the *spirit* - author's note: A. V. Voicu]; and (2) to encompass a concrete form of expression, perceivable by the senses; [and] (3) to be able to make the work known to the public-at-large.[11]

1) For this first requirement to be deemed as fulfilled, "*our jurisprudence considered that the author may not limit himself/herself to a mechanical execution of the works, through the typical technical means, without a his/her own contribution with respect to the substance of the ideas which represent the work at issue.*"[12] In the applicable doctrine, this element is usually designated "*originality*." Ulmer, E. in order to avoid an interpretation which would erroneously identify this element with that attributed to an *absolutely new* [work], prefers to use the phrase "*individual nature*" of a work. "*The work must bear evidence of the personality and the individuality of the author.*"[13]

2) As to the requirement that the work must be capable of being the object of authorship rights, the work must be in a *concrete form of expression, perceivable by the senses*, which means that the authorship rights come into effect at the moment

[10] Eminescu, Yolanda, op. cit., p. 57, with cross-reference to AILLI, Anuaire/1, p. 329. At the Geneva session (July 2 - 13, 1990), the AIPPI's representative, *Rherry Mollet-Vieville*, underlined the position of the expert's Committee's with respect to what types of entities may receive protection afforded to authorship rights, stating that these rights may only be applied to natural persons, as a legal entity may not receive such rights unless provided so by the natural person holding these rights. However, there is an exception relating to *collective works*, whereby the contribution of the various natural persons is not known [anonymous] or when it is impossible to identify the different authors. Nonetheless, under the legislation applicable prior to European harmonization, there were reported cases of authorship rights granted to legal entities (and in which relevant doctrine the legal reasoning was provided and specified differently), our legislation followed the *true author principle* according to which, as the creation of a work resulted from an intellectual endeavor, only a natural person - who could carry out such an activity - may be deemed as an author (Eminescu, Yolanda, *op. cit*., p. 55). In the doctrine a distinction was made between two categories of authorship rights: original or primary subjects and derivative or secondary works (Longhin, V. *Despre subiectul dreptului de autor, in* "Justiția nouă" nr. 6, 1957, p. 1028 and the following pages). *Law no. 8 from March 14, 1996 regarding Authorship Rights and Related Rights*, published in the *Official Gazette of Romania, Part I, no. 60 from March 26, 1996*, specifically addresses the issue of the problem regarding the ownership of authorship rights by legal entities, similar to natural persons who are not the [actual] author, by providing that [such legal entities], under the law, shall enjoy those rights afforded to authors (*Art. 3(2)*).

[11] Eminescu, Yolanda, *op. cit*., p. 76 and the following pages.

[12] Eminescu, Yolanda, *op. cit*., p. 77.

[13] Ulmer, E., *Urhever und Varlagrecht*, ed. III, 1980, Springer Verlag, Berlin, Heidelberg, New York, p. 119-125.

that the work takes the form of a manuscript, outline, thesis, painting or any other concrete form - which does not mean that "*in all cases the work must be affixed to a certain material support [physical element]* "[14], with the exception being, of course, situations such as plastic art works which are inextricably part of the material support [physical element].

3) Relating to the third requirement whereby a work would be able to receive protection, in other words *to be able to make the work known to the public-at-large,* through reproduction, execution, exhibition, representation or any other means, in reality is connected to the previous requirement mentioned above, "*which explains the fact that some legal scholars do not mention but two requirements necessary for the protection of authorship rights*."[15] For example, in the relevant German scholarly opinion, only two requirements are in effect with respect to the protection of a work: the realization of an individual creation and the expression of [the work] in a form objectively perceivable.

B. In the majority of the applicable legislation there is no enumeration of the category of protected works within the framework of authorship rights - rather only reference is made to the three major categories of doctrinal classification, namely: literary, artistic and musical works; in the most recently enacted legislation, such as the current Romanian law, [the types] of protected works are indicated, however, not exhaustively. In some cases, within the category of artistic works are included *sports creations, pantomimes*, *circus performances* and *choreographic works*. The protection of *sports creations, choreographic works, pantomimes,* and *circus performances*, which are similar from many points of view, can be identified in the principal European rules: such as, *Art. 2* of the *Portuguese Code of 1985*, as modified in 1991, which refers to these three main categories: literary, scientific and artistic, which [category] also includes "sports creations", and continues with a non-limitative enumeration in which "*choreographic works and pantomimes reduced to writing or in any other manner*" are included in sub-paragraph (d); a similar enumeration as that found in the *Portuguese Code* may be found in *Art. 10* respectively *Article 11* of the *Spanish Code of November 11, 1987*. The general definition set forth in *Art. 10(1)* is followed by a non-limitative enumeration, whereby sub-paragraph (c) covers, "*works of drama, musical-dramas, choreography, pantomimes and in general theatrical works*"; pursuant to the new *French Code of July 1, 1992*, in *Art. LI 122(4),* the category of protected works is mentioned, "*choreographic works, circus performances, pantomimes, which works have been reduced to writing or in any other manner*." Similar to this legislation based on European principles, the Romanian law, specifically *Law no. 8/1996 on Authorship Rights,* in its *Art. 7*, specifies the characteristics relating to the *object of authorship rights* as being those original works which "*are an intellectual endeavor in the literary, artistic*

[14] Eminescu, Yolanda, op. cit., p. 79.
[15] *Ibidem*.

and scientific domains, whatever the means of creation may be as well as the means or concrete form of expression, and independent of the value and intended audience" which also cover pantomimes (sub-paragraph (d)).[16]

C. In the European scholarly opinion [doctrine] and jurisprudence one may find material relating to the protection of sports creations. The Swiss doctrine[17] has attempted to analyze, and to specify the essentional elements necessary for the protection of sports creations. Thus, with respect to the relationship between sports and authorship rights, it is considered that, the requirement for *the creation of the spirit*, the expression pertaining to human thought [ideas], in addition to that created by nature and techniques independent of the intellectual activities of persons [humans], is not dependent on its importance (a qualitative aspect). Not only exceptional works shall be protected by authorship rights, but more modest works as well. The essential requirement necessary for a work[18] to be considered as a *creation of the spirit* is that it shall set forth new elements and shall distinguish itself, through this attribute, from previous works. Likewise, a new *combination* of elements already known may have the characteristics of a *creation of the spirit*. The requirement of an *individual* character relates to the essential features, originality and personal "fingerprint" of the author. Creations of the spiritual [intellectual] kind which, although new, are already so similar to works already known, so much so that the [new creations] could have been made by any person, do not have an individual nature [character] and thus do not obtain the protection arising from authorship rights. Arising from the inclusion of a spiritual [intellectual] creation within the *arts* and *culture* domains, the third requirement which needs to be fulfilled so that a work will be protected provides us with the argument that certain sports creations may also be granted protection of authorship rights. What is certain, for example, is that all the body movements of a skier are not determined by any spiritual [intellectual] activity carried out prior to the race. As opposed to a work of choreography, even a [football] match being played on the basis of predetermined tactics may not be considered as a thought-out work. However, keeping in mind that sports creations exist which have the characteristics [elements] of certain work of choreography or pantomimes, such as synchronized swimming, acrobatics routines and the free exercises chosen in gymnastics, competition-level aerobics routines, high jump, weight-lifting, javelin and hammer throw techniques, etc., these may bring together

[16] *Ibidem*, p. 83 and the following pages.

[17] Vouilloz, Fr, *Sports and Authorship Rights*, in Macolin, EFSM-Macolin (Switzerland), 1995, 52, 12 (dec.), p. 14-18.

[18] *Works*, pursuant to *Art. 2(1)* from the LDA (Law on Authorship Rights of the Swiss Federation), is defined as "*a creation of the spirit (spiritual creation - n.n.) artistic or literary, with an individual character, whatever its value or intended target group*", and which is not subject to the obligation to be affixed to any material support. As per this legislation, the protection of authorship rights shall be effectuated without the need of any formality, without any registration and/or inscription of the *copyright* [©] symbol.

the essential elements necessary and sufficient for the obtaining of protection of authorship rights.

The Italian [legal] practice seems to exclude any and all authorship rights vis-à-vis sports competitions. Quite to the contrary, the German Federal Tribunal ruled that a figure skating routine could be rightly deemed as a work, since it contained elements attributable to works. The Paris Court of Appeals likened - relating to social security - bull-fighters to artists and not sportsmen[19], and considered that "*any movement which combines plunges with tumbling, executed on a plastic net is a pantomime, otherwise constituting a work of the spirit protected by the law regarding literary and artistic works*"; likewise the notion of pantomime includes all "arts of corporal expression", including mimes and gymnastics routines (in a broader context, and not limited to only to the sport of gymnastics - n.n. A. V. Voicu).

D. The international conventions regarding authorship rights do not include provisions which exclude, *de jure*, the protection of sports creations, rather the opposite as they confer the general framework of protection upon [sport creations]. *Art. 2(1)* of the Berne Convention[20] sets forth the *principle regarding the protection of all works* relating to the literary, scientific and artistic domains, whatever the mode or form of expression. The general language is followed by a limitative enumeration of works which relate to and include *choreographic works and pantomimes*. If, with respect to these works - choreographic or pantomimes - the Rome Act (which our country still observes) conditioned the protection upon the affixing [of the work] on a material support, the Paris Act[21], by superceding this requirement, "*reserves the right to impose the affixing on a material support requirement to the applicable national legislation*."[22] In conformity with *Art. 2 of the Convention* relating to the establishment of the WIPO, *intellectual property* this refers to rights regarding literary, artistic and scientific rights, interpretations of interpreting and executing artists, phonograms and radio programs, inventions from all domains of [human] activities, scientific discoveries, designs and industrial models, trademarks, trade names and service marks and commercial names, protection against unfair competition, as well as any other right relating to any intellectual endeavor in the industrial, scientific, literary and artistic domains. From the above-mentioned, the generous enumeration arising from international conventions may be ascertained, relating to authorship rights, the categories of protected works, as well as those [works] constituting intellectual property.

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[19] Decision of the Paris Court of Appeals dated June 22, 1983, Dalloz, 1984. I.R., P. 490.

[20] Through Law no. 152, promulgated through Decree no. 1312 dated March, 24 1926, published on September 22, 1926, Romania ratified the Berne Convention, as modified in Berlin in 1908, with effect as of January 1, 1927, and pursuant to the law promulgated through Decree no. 1471 from 1935, published in Monitorul Oficial no. 123 dated March 31, 1935, Romania ratified the form revised in Rome on June 2, 1928 which entered into force on August 6, 1936.

[21] Reference is made to the fact that the universal Convention regarding authorship rights, adopted in Geneva in 1952 and revised in Paris in 1971.

[22] Eminescu, Yolanda, *op. cit*., p. 319.

E. As support of the opinion that a sports creation may be a protected work, as a [work] constituting intellectual property, one may also rely upon the sports phenomenon which binds culture. The legislative recognition regarding the cultural character of sports came about on December 19, 1954, upon the Council of Europe's adoption of the *European Cultural Convention* "*in order to promote the collaboration between its members and between those who were becoming members of the convention, the study of European language, history and civilization*." Under the auspices of the *Council of Europe's General Secretariat*, the Sports Division was established as a component of the *Education, Culture and Sports Direction*. For the efficient carrying out of the pertinent activities, for the European integration in the sports domain and not least of all regarding "*the harmonization of sports-related legislation of European countries*", the Committee Director for Sports Development was set up, whose members include representatives from member countries of the Council of Europe and the European Cultural Convention.

As a final consideration to those presented and reasoned above, I consider that, in the case of certain sports, if these fulfill the requirements of protected works, such sports creations may qualify as works protected by the law on authorship rights. On the basis of this is our proposal for a *lege ferenda*. In this way, the subjective right of the author of the sports creation would obtain the prerogatives with a personal unpatrimonial character which Romanian legislation recognizes: a) the right to divulge or the right to make the work known publicly for the first time; b) the right of retraction; c) the right of authorship over the work or the right to be deemed as the author; d) the right to have the entire work respected or the inviolability of [the work]. At the same time, in the event that a [the author] was prejudiced due to a violation of her/his rights to use the work, to dispose over the work, the exploit the work, as permitted by law, the author shall have a cause-of-action for *civil delinquent liability*, based on the provisions of *Art. 998 of the Civil Code*. In the relationships arising from contracts relating to the exploitation of her/his rights, the author shall have at her/his disposition, in the event of breach by the other party, the assumed obligation or that which the law gives him a right to, such as a civil action based on *contractual liability*. In addition to a civil action for damages, based on delinquent liability, invoked frequently by an author who has had her/his rights breached, we should remind [the reader] that, at least theoretically, the author of a sports creation also has recourse to *a cause of action based on an unjustified enrichment without reason* and for *non-payment of amounts due*. Jurisdiction for the adjudication of litigation relating to authorship rights falls upon the courts. In certain cases, the violation of authorship rights may constitute an infraction which will be *criminally* sanctioned.

The rights which would be recognized for authors of sports creations, may be placed in the category of *related and connected rights* (similar to the rights recognized for interpretative and performing artists, producers of phonograms and

videos, as well as audiovisual communication enterprises)[23]. More recent national legislation, as well as Romanian law, stipulates special provisions relating to these categories of work (TITLE II, Connected Rights of Authorship Rights, *Art. 92-112*). Consequently, the right of authors of sports creations and in particular, *their moral right to their name, authorship rights,* and *the intangibility regarding interpretations and performances* shall also be expressly recognized by a majority of the various legislation, "*since it was also addressed by the Rome Act of the Convention of the Berne Union*."[24]. Furthermore, we may affirm that, we do not see any impediment to the recognition of the rights of authors of sports creations, even with respect to those laws which [do not yet] expressly stipulate provisions on point - similar to how the jurisprudence recognizes all rights of interpretative and performing artists (as well as the other categories whose related and connected rights are recognized)[25], likewise the rights of authors of sports creations should be recognized (- n. ns. A.V.Voicu).

[23] Claude Colombet, *Les droits voisine*, in "Droit d'auteur et droits voisins", Colloque de l'IRPI, Librairies tecchniques, 1986, p. 125 and the following pages.

[24] Eminescu, Yolanda, *op. cit*., p. 169.

Ibidem, p. 170 with cross-reference to Ulmer, E., Noțiunea de operă în dreptul de autor şi arta modernă, în D. A. nr. 3.

THE QUALITY OF LIFE FOR THE PATIENTS WITH ANKILOSING SPONDILITIS

ZAMORA ELENA[1], KORY-MERCEA MARILENA[2]

REZUMAT.Calitatea vieţii la pacienţii cu spondilita anchilozantă. În această lucrare încercăm să prezentăm impactul spondilitei anchilozante asupra calităţii vieţii bolnavului, care include simptomele (durerea, redoarea, oboseala, tulburările de somn), funcţia fizică (autoîngrijirea, mobilitatea, activităţile casnice), rolul funcţional (exercitarea profesiei, acasă, şcoală), interacţiunile sociale (căsnicie, familie, prieteni, colegi de muncă, comunitate, timpul liber), statusul psihic (depresie, anxietate, mecanismele de cuplare cu boala), efectele tratamentului (dispepsia, tulburări gastrointestinale, rash cutanat). Încercăm de asemenea să evaluăm costurile financiare (directe şi indirecte) şi costurile pentru societate, specifice pentru aceşti bolnavi în România.

Introduction

The ankilosing spondilitis is a chronic inflammatory disease which affects mainly the axial joints. During the long lasting evolution the peripheral joints are affected, too. Because it is an invalidating disease, the concerning for the quality of life versus disease evolution is very important.

The quality of life versus health is the consequence of the disease and treatment on the patients' perception concerning his ability to have a fully functional life. By her nature, the quality of life has a subjective and multidimensional characteristic based on the patients' experience.

The fields of quality of life which affect the patients with ankilosing spondilitis

The quality of life versus health has more aspects, as: symptoms, the physical function, work and the functional role, the social interactions, the psychological status and the side effects of treatment.

The newer concepts include among these fields the financial costs of the disease, too.

Each field includes several components.

Symptoms: pain, redor, fatigue, sleep disturbances.

Physical function: self-care, mobility, home activities.

Functional role: performing the job, home, school.

Social interactions: marriage, family, friends, work colleagues, community, leisure time.

Psychical status: depression, anxiety, the coupling mechanisms with the disease.

Treatments' effects: dyspepsia, gastrointestinal troubles, skin rash.

Financial costs: direct and indirect.

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Symptoms

The presentation tries to emphasise the characteristics of each aspect of life quality in patients with ankilosing spondilitis (AS), using the results of studies published in literature.

Pain, redor, fatigability are the most frequent symptoms reported on patients with ankilosing spondilitis. As in rheumatic diseases the severity of symptoms varies largely among patients and at the same patient in evolution. Patients with ankilosing spondilitis have at least one increase in severity of symptoms and some recurrences with ameliorations during one year. Daily pain and redor are reported by more than 70% of patients. Usually, the severity of pain experienced by patient is evaluated on an analogue visual scale, but this aspect isn't always correctly assessed by the patient. Other pain severity evaluation method is asking the patient, in a hypothetic scenario, which is his assumed risk degree for the completely amelioration of the symptoms.

The fact that the patient assumes a high risk degree implies that the symptom is severe and its amelioration is important for him. Using the Gamble standard technique for the presentation of such scenarios at 50 patients with ankilosing spondilitis, O'Brien reported that the average patients assumed a risk of 11% life danger in order to obtain the complete remission of the pain and redor. By contrast, the patients with rheumatoid arthritis assume a death risk of 22% life danger for the complete remission of pain and 15% for the complete remission of redor.

Fatigue is reported by most patients as moderate/severe, average score of 49 on a visual analogue scale. The severity of fatigue was associated with greater pain and redor and greater malfunction and the patients reported a more significant amelioration after sleep than medication or physical exercise. A good sleep could be assured by the efficient control of nocturnal pain. Concerning the persistence of symptoms versus sickness duration the studies indicate the persistence of pain as significant symptom along several years in the sickness evolution. The redor related with inflammation or bone ankilosis is also progressive in time. The pain and redor are measured in most clinical studies while fatigability, sleep disturbances and the symptoms evaluation as a whole by the patient are less evaluated. In order to estimate the progression of ankilosing spondilitis, the Bath Group proposed the sickness activity and duration index (BASDAI) which groups measurements of spinal pain, peripheral joints pain and oedema, the local sensibility, fatigability and duration and the severity of morning redor, all assessed on a visual analogue scale. For our patients we have the Romanian version of this index (Udrea, Ciobanu). The amelioration of the pain and redor are criteria for assessment of therapy efficiency on patients with ankilosing spondilitis, so for the patients with the AS physical therapy is recommended, the maintaining of the spinal mobility being the major benefit of this therapy.

The physical function

The physical or functional impotence refers to the limitations in the self-care activities, mobility and the abilities in performing household activities. The evaluation of functional capacity is usually made on patients based on the standardised questionnaires. These questionnaires may be generic, valid for all diseases, as: Sickness Impact Profile or Health Assessment Questionnaire or Arthritis Impact Measurement Scales (validation in

progress at The Internal Medicine and Rheumatology Clinic of „Dr. Ioan Cantacuzino" Hospital). Meanwhile, it was suggested the need of more specific questionnaires for the patients with spondilartropathies for the reason that axial arthritis determines functional disability and this disability is not properly captured by most generic instruments. These AS specific questionnaires measure the grade of specific functional disability for patients with spondilitis and are more sensitive in emphasising of changes in time for these disabilities. For measuring the function at patients with AS there are two types of questionnaires used in clinic and in clinical studies: BASFI and Dougados Functional Index; both are validated in Internal Medicine and Rheumatology Clinic of „Dr. Ioan Cantacuzino" Hospital (Udrea, Ciobanu and Mihai). Measured with these instruments, the functional disability of these patients doesn't seem to be mild. When the functional disabilities appear, these are in relationship with mobility rather than with self-care activities. A study based on 129 patients with AS reveals that 47% have mobility problems while only 6% have reported difficulties in self-care activities. Beside the duration of the sickness the presence of peripheral arthritis, of hip arthritis, the impairment of cervical spine, the young age at onset the male sex and the association with other diseases represents risk factors for a more severe functional disability. A greater severity of sickness, expressed by more severe pain and redor is associated with a greater functional disability, as well as depression, anxiety and the feeling of losing control on himself and on his health. The functional disability degree correlates insignificantly with physical measurements as Schober test, the distance between occipital region to the wall and the cervical rotation. The functional disability wasn't measured frequently in clinical studies regarding NSAID, although the treatment with NSAID determines the function improvement. The functional disability was more evaluated in clinical studies regarding basic treatment with sulfasalazine, with uncertain results. Unlikely, the physical therapy ameliorates significantly the functional disability or stabilizes the functional decline when physical exercise is continued for periods between 2 weeks and 18 months. The total hip replacement for those with severe inflammation of hip joint and the surgical correction of severe spinal ciphosis may also ameliorate the function of these patients.

The work ability

In 9 studies concerning the work capacity of AS patients, 60-85% of patients continued to work during the average duration of sickness (14 years or more), but in these studies were counted just the patients which reported their problems to the rheumatology clinics and thus the value of groups was limited. AS the work ability increases progressively with age and work duration, a more informative value would have reporting of the percentage of patients who continue to work at a certain duration of the sickness, rather than the percentage of those who continue to work at various stages and durations of the sickness. Three studies report the sum of percentages at about 75-85 % of persons who continues to work 20 years of sickness and 53-81 % the persons who work during 30 years of sickness. The patients included in these studies were especially young people or midlife ones from the North and West of Europe. As the age, sex and the response of the society on the lack of a job may influence the probability that persons choose to work or not those aspects should be considered in the studies of work disability, too. The associated factors at the continuation of work include a high position in the society, maybe due to low

physical ability requirements (work office, low physical activity). The professional counselling is associated with a decrease of 62% of the risk of functional disability. Other risk factors for work disability include the active disease markers (pain, redor), the high functional disability and the limitation of lumbar mobility, the inflammation of the hip joint, the hip joint replacement and other associated diseases. Thus, in these studies most patients continue to have an activity, 8-37% of them report the change of the workplace. Most changes were towards workplaces some required lower physical abilities. Moreover, at least a third of patients reported at least a longer medical holiday. The possibility that a person with AS have a longer medical holiday increases at those with peripheral arthritis and at those of which the profession requires bearing and lifting heavy objects.

The social interactions

The limitations which appear here may onset in the context of marriage, family, friends and workplace relationships. There are fewer studies concerning these aspects. In a study on 129 patients with AS only !% reported limitations in the social relationships, 2% limitations in communication and 6% limitations in the activities of leisure time. A study regarding the sexual problems of the patients with AS reveals that there is no problems for male patients, but the women with ankilosing spondilitis reported a lower sexual pleasure and preferred to have sexual intercourse less frequently than unaffected persons. In a study on 100 patients with AS with the average age of 42 years old and an average duration of the illness of 20 years, 7% reported a severe discomfort during the sexual intercourse and 27 a light discomfort. These aspects reveal that the sexual function represents a problem and also a concerning of the patients with AS.

The psychological status

The emotional problems were identified as a second frequent problem who result in limitations of the physical ability of patients with AS. The incidence pf depression at the patients with AS was evaluated in a study on 177 patients with an average age of 43 years old and an average length of illness of 18 years. The results of the study reveal the presence of depression at 31 % of patients; the depression was more frequent at women (46%) than at men (26%). The depression degree was correlated with the severity of pain in women and with functional disability and pain in men. Depression and anxiety are among factors associated with an insufficient functional ability and with work disability. A study on 76 male patients with AS for solving the stress situations revealed that unlike unaffected persons, patients with AS have the trend of making mild the stress situations by comparison with others and by finding alternate sources of satisfactions and used less frequently the self accusation or resigning.

The side effects of medication are unfortunately frequent during the treatment of AS. In a study on 1034 patients from Great Britain, 47% reported serious side effects at diclofenac and 30-40% of patients treated with indometacin, naproxen, piroxicam or diclofenac stopped these medications due to side effects. These percentages are similar to patients with rheumatoid arthritis which interrupt the NSAID due to the toxicity. 85% of patients with AS treated with sulfasalazine reported side effects of medication, compared with 68% for patients with rheumatoid poliarthritis.

Actually there are no studies to examine the importance of side effects of medication on the life quality on patients with AS.

Financial costs

Hese are classified as direct costs (represent the expenses made or the value of consumed health services for medical care) and indirect costs (represent the income expected by patient or by caregivers due to illness).

A Dutch study which examined the direct costs of AS for 11 patients who took part in a clinical study concerning physical group therapy revealed that the annual direct costs were of 800 US$/patient and 33% of costs were with hospitalisation, 31 % with medication, 8% for visits to the physician and 27 % for other services. These costs were significantly smaller than those expected for patients with rheumatoid arthritis, systemic erithematous lupus (SEL) and fibro-myalgia although the comparisons are difficult to perform due to different methods of studies. A higher functional disability is a major predictor for direct medical costs. The patients taken in the study of costs had a short average duration of illness (7 years) and low degrees of functional disability. These factors contributed on estimation of small direct costs in a group with a large age interval, longer illness duration and higher functional disabilities, thus expecting higher direct costs.

The measurement of global health status

Sometimes there is a need for a global evaluation of health status which takes into consideration all above-mentioned aspects. A way to obtain such a evaluation is evaluation of preferences. These are dimensions of advantage, of desire of a particular health state, compared to some alternative states (conditions), as perfect health or death. The classical method to determine the evaluation of preferences is the test of standard adventure, during which the patients follow a situation which implies the chance to remain at current state or to accept an adventure with a higher life danger and a complimentary chance of life with a perfect health. The higher is the preference of an individual for his current state of health, the lower is his assumed and accepted risk for the chance of a perfect health. According to other measurements of individual health aspects, the preferences evaluation has the advantage of integrating all aspects of a person perception on his health into a single measurement. The Gamble test (standard adventure) was used for the estimation of the preferences of a 59 patients with AS who took part in a clinical study about physical therapy (average age is 44 years old; the average duration of sickness is 6 years).

When a scale of a score of 1 for the perfect health and 0 for death was used, the average preferences of these patients was of 0.84 - indicating a great preference for their current health state and an aversion of death risk for the chance of a cure. The results were similar to those of other study using the Gamble standard method in a group of 50 patients (average age was 45 years old, the sickness average duration was 14 years), in which the average preference was also 0.85. These aspects suggest that, although the AS patients are aware of their health problems, most of them are satisfied with their health status.

Conclusions

Most patients have moderate/severe symptoms of pain, redor, fatigability occasionally, and the symptoms persist in sickness evolution. Even if these symptoms persist a long period of time, most patients maintain a good functional ability, continue to work and don't have important limitation in the social interactions due to illness. The long medical holidays are not frequent and the clinical significant depression affect almost a third of patients. Although the data about financial costs are limited, the direct costs seem to be lower than those for several other chronic illnesses. For a better understanding of situation the prospective cohort studies are necessary, the patients being studied from the onset of symptoms. The identification of the patient subgroups with risk for severe persistent symptoms, functional and work disability and the psychological problems is necessary for focus the research and treatment efforts rationally. We think that incidence and prevalence studies of AS and it's direct and indirect costs in Romania are necessary because if there is no proper physical therapy, due to inadequate life conditions, the AS patients in Romania have serious disabilities and if they haven't a professional alternative according to their disability, they have to retire 20-30 years earlier than the normal age for retirement, thus the costs for society are higher.

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THE ORIGINS AND EVOLUTION THE SPORT OF SWIMMING

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REZUMAT. Originile şi evoluţia înotului sportiv. Studiul conţine informaţii cronologice asupra dezvoltării înotului, din cele mai vechi timpuri până astăzi. În text, relevăm evoluţia tehnicilor de înot sportiv, performanţele semnificative ale diferitelor generaţii, evoluţia şi modernizarea echipamentului specific, cât şi istoricul regulamentului competiţional.

The study contains chronological informations about swimming since the ancient times untill nowadays. In this text we point out the evolution of the swimming techniques, the significant parformances of different generations, the evolution of the specific equipament as well as the history of the competitional regulations

The Bible, the Iliad and the Odyssei all contain references to the sport of swimming. Thucydides noted the activity in scripts that are 2400 year old. Platon once declared that anyone who could not swim tacked a proper education, and Julius Caesar was known for his swimming prowess.

Drawings from the Stone Age have been found in „the cave of swimmers" near Wadi Sora in the southwestern part of Egypt. These pictures show a swimming stroke like breaststoke or dog paddle although it may also be possble that the movments had some sort of ritual meaning unrelated to swimming. A clay seal dated between 4000 B.C. shows four swimmers swimming a variant of the front crawl. More referance to swimming can be found in Babylonian bas-reliefs and Assyrian wall drawings, depicting a variant of the brastsroke. The most famous drawings werw found in the Kebir desert and are estimated to be from around 4000 B.C. The Nagoda bas-relief also shows swimmers dating back from 3000 B.C. The Indian palace Mohenjo Daro from 2800 B.C. contains a swimming pool sized 30 by 60 m. The minoan palace Minos of Knossos in Crete also featured baths. Depictions of swimmers werw also found from the Hittites Minoana, and other Middle Eastern civilizations, the Incas in the Tepantitla House at Teotihoacan and mosaics in Pompeii.

The Greeks did not include swimming in the ancient Olympic Games, but practiced the sport building swimming pools as part of their baths. One common insult in Greece was to say about somebody taht she neither knew how to run nor swim. The Etruscans at Tarquinia (Italy) show pictures of swimmers in 600 B.C. The greek Scyllis was taken prisoner on a ship of the Persian king Xerxes I in 480 B.C. After learning at about an impending attak on the Greek navz, he stole a knife

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an jumped overboard. During the nigt and using a snorkel made from reed, he swam back to the ships and cut them loose.

It was also said that the ability to swim saved the Greeks at the Battle of Salamis whilw the Persians all drowned whwn their ships were destroyed.

Iulius Caesar was also known to be a good swimmer. A series of reliefs from 850 B.C. in the Nimrud Gallery of the British Museum show swimmers, mostly in military context, often using swimming aids.

In Japan swimming was one of the noble skills of the Samurai, and historic records describe swimming competitions in 36 B.C. organized by emperor Suigui, which are the first known swimming races.

The Olympic Games werw held in 1896 in Athens, a male only competition. Six events planned, but only four events actually contested: 100m., 500m., 1200m. freestyle and 100m. for sailors. The first gold medal was won by Alfred Hajos of Hungary in 1:22.20 for the 100 m. freestyle. Hajos was also victorious the 1200 m. event, and was unable to compete in the 500 m., which was won by Austrian Paul Neumann. Anather swimming competition of 100 m. for sailors includee three greek sailors in Bay of Zea near Pireus, starting for a rowing boat. The winner was Ioannis Malokinis in 2 minutes and 20 seconds. A 1500 m. race was also performed.

The second Olympic Games in Paris in 1900 featured 200, 1000 and 4000 m. freestyle, 200 m. braststroke and a 200 m. team race. There were two additional unusual swimming events: an obstacle swimming course in the Seine river (swimming with the current), and underwater swimming race. The 4000 m. freestyle was won by Jhon Arthur Jarvis in under one hour, the longest Olympic swim race ever. The backstoke was introduced to the Olympic Games in Paris, as was water polo. The Osborn Swimm Club from Manchester beat club teams from Belgium, France and Germany quite easily.

The Trudgen was improved by the British born Australian swimming teacher and swimmer, Richard Cavill. Like Trudgen, he watched natives fron the Solomon Islands, using front crawl. But different from Trudgen, he noticed the flutter kick and studied it closely. He used this new flutter kick instead of the breaststoke or scissor kick for the Trudgen. He used this stoke in 1902 at an International Championships in England to set a new world record by out-swimming all Trudgen swimmers over the 100 yards in 0:58.4. He taught this style to his six sons, each becaming a championship swimmer. The technique known as Australian crawl up to 1950, when it was shortened to crawl, technically known as front crawl.

The Olympics in 1904 in St.Louis, included races over 50,100,220,440,880 yards and one mile freestyle, 100, 440 yards breastsoke and the 5 x 50 yards freestyle relay. These games differentiated between breststoke and freestyle, so that there werw now two defined style (breststoke and backstroke) and freestyle, where most people swam Trudgen. These games also featured a competition to plunge for distance, where the distance without swimming, after jumping in a pool, was measured.

In 1907 the swimmer Annette Kellerman from australia visited Unites States as an „Undewater Ballerina", a version of Synchronized swimming, diving into glass tanks. She eas arrested for indecent exposure, as her swimsuit showed arms, legs and the neck. Kellerman changed the suit to have long arms and legs and a collar, still keeping the close fit revealing the shapes underneath. She later starred in several movies, including one about her life.

In 1908, the world swimming association „Federation Internationale de Natation de Amateur „ was formed in Paris.

Women werw first allowed to swim in the Olympic Games in 1912 in Stockholm, competing in freestyle races. In the 1912 games, Harry Hebner of the United States won the 100 m. backstoke. At these games Duke Kahanamoku from Hawaii won the 100 m. feestyle, heaving learned the six kicks per cycle front crawl from older natives of his island. This style is now considered the classical front crawl style. The man's competition were 100, 400 and 1500 m. freestyle, 100 backstroke, 200 and 400 m. breaststroke, and four by 100 m. freestyle relay.

In 1922, Jhonny Weissmuller became the first person to swim the 100 m. in less than a minute, using a six kicks per cycle Australian crawl. Jhonny Weissmuller started the golden age swimming and was the world's most famous swimmer, winning five Olympic medals and 36 national championaships and never losing a race in ten year career, until he retired from swimming and started his second career as Tarzan. His record of 51 seconds in 100 yard freestyle stood for over 17 years. In the sama year Sybil Bauer was the first woman to break a man's world record over the 440 m. backstroke in 6:24.8.

At the 1924 Summer Olympics in Paris, lane divides made of cork were used for the first time, and lines on the pool bottom aided with orientation.

In 1928 was the start of the scientific study of swimming by David Armbruster, coach at the University of Iowa, filming underwater swimmers. The Japanese also used underwater photography to research the stroke mechanics, and subsequently dominates the 1932 Summer Olympics. Armbruster also researched a problem of breaststoke where the swimmer was slowed down significantly whilw bringing the arms forward underwater. In 1934 Armbruster refined a method to bring the arms forward over water in breaststroke. While this "butterfly" technique was difficult, it brought a great improvement in speed. One year later, in 1935, Jack Sieg, a swimmer also from the University of Iowa developed a technique involving swimming on his side and beating his legs in unison similar to a fish tail and modified the technique afterward to swim it face down. Arbruster and Sieg combined these techniques into a variant of the breaststoke called butterfly with the two kicks per cycle being called dolphin fishtall kick. Using this technique Sieg swam 100 yards in 1:00.2. However, even though this technique was much faster than regular breststoke kick were used by a few swimmer was using this butterfly style, yet this stoke was considered a variant of the breststoke until 1952, when it was accepted as a separate style with a set of rules.

Around thaz time anather modification to the backstroke became popular. Previouslz, the arms were held straight during the underwatwr push phase, for example by the top backstroke swimmer from 1935 to 1945, Adolph Kiefer. However, Australian swimmers developed a technique where the arms are bent underwater, increasing the horizontal pusc and the resulting speed and reducing the wasted force upward and sideways. This style is now generally used worldwide. In 1935 topless swimmsuits for men were worn for the first time during an official competition.

In 1943 the U.S. ordered the reduction of fabric in swimsuits by 10% due to wartime shortages, resulting in the first two piece swimsuits. Shortly thereafter the Bikini was inventid in Paris by Louis Reard.

Another modification was developed for breaststroke. In breststroke, breaking the water surface increases the friction reducung the speed of the swimmer. Therefore, swimming underwater increases the speed. This led to a controversy at the 1956 Summer Olympics in Melbourne, and six swimmers were disqualified, as they repeadtedly swam long distances underwater. However, one Japanese swimmer, Masaru Furukawa, circumvented the rule by not surfacing at all after the start, but swimming as much of the lane under water as possible before breaking the surface. He swam all but 5 m. undereater for the first three 50 m. laps, and also swam half under water for the last lap, winning the gold medal. The adoption of this tehnique led to many swimmers suffering from oxygen starvation or even some swimmers passing out during the race due to a lack of air, and a new rule was introduced by FINA, limiting the distance that can be swum under water after the start and evry turn, and requiring the head to braek the surface every cycle. The 1956 games in Melbourne also saw the introduction of the body roll, a sort of trumble turn to faster change directions at the end of the lane.

In 1972, another famous swimmer, Mark Spitz, was at the height of his career. During the 1972 Summer Olympics in Munich, Germany, he won seven gold medals, more than any other Olympic athelte has ever won. Shortly thereafter in 1973, the first swimming world cup was hold in Belgrade, Zugoslavia by the FINA.

Breaking the warwe surface reduces the speed in swimming; this is true not only for breaststroke, but also for backstroke. The swimmers Daichi Suzuki (Japan) nad David Berkoff (USA) used this for the 100 m. backstroke at the 1988 Summer Olympics in Seoul. Berkoff swam 33 m. of the first lane completely underwater using only a dolphin kick, surfacing just before touching the turn far ahead of his competition. A sports commentator called this a Berkoff Blastoff. Suzuki, having practiced the underwater technique for 10 years, surfaced only a little bit earlier, winning the race in 0:55.05. The rules were quickly changed in the sume year by the FINA to ensure the health and safety of the swimmers, limiting the underwater phase after the start to 10 m. which was expended to 15 m. in 1991. In Seoul, Kristin Otto, from Est Germany won six medals, the most ever won by a woman.

Another innovation is the use of forward tumble turns for backstoke. According to the rules, a backstroke swimmer had had to touch the wall while lying

less than 90 degrees out of the horizontal. Some swimmers discovered that they could turn faster, if they rolled almost 90 degrees sideways, touched the wall, and made a forward tumble turn, pushing off the wall on their backs. The FINA has changed the rules to allow the swimmers to turn over completely before touching the wall to simplify this turn and to improve the speed of the race.

In 1998, Benoit Lecomte swam across the Atlantic Ocean, a total of 5.600 Km. in 72 days, swimming 6 to 8 hours daily. He was accompanied by two sailors on a sailboat.

After underwater swimming for breaststoke and backstroke, the underwatwer swimming technique is now also used for buterfly for example by Denis Pankratov (Russia) or Angela Kennedy (Australia), swimming large distances underwater with a dolphin kick. FINA is again considering a rule change for safety reasons. It is currently unclear if it is possible to swim faster underwater than swimming freestyle or front crawl at the surface.

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STUDIA UNIVERSITATIS BABEŞ-BOLYAI, EDUCATIO ARTIS GYMNASTICAE, L, 2, 2005

IDENTIFICATION OF STRESS FACTORS AT SPORSTMAN

MAROLICARU MARIANA[1], BOROS-BALINT IULIANA[2]

REZUMAT. Identificarea factorilor de stres de către sportivi. Observaţie pe marginea unei anchete. Identificarea factorilor stresanţi şi găsirea modalităţilor de reglare a stărilor de stres şi, totodată, de menţinerea stării de anxietate la un nivel optim determină activitatea sportivă de performanţă în sens pozitiv.

1. In the last years the ritm of changes has grown, which led to the existence of increased stress factors form our life.The stress can affect peoples life, causing the appearance of diseases with severe social, physical and psychological consequences.

The concept of stress was introduced by Hans Selye (1964), considering that stress is an "unspecific answer of the body to any kind of solicitation"; specifying that exists two kinds of stress positive or eustress and negative or distress.

Directing to the particularity of the sports activity it is enforced as a requirement the existence of eustress, if it is possible, because this form of stress represents a profitable factor for achieving performance in sport.

The existence of a strong connection is proven, between performance and levels of stress, connection which is very important in sport performance.

According to the circumstances, stress can be present in different levels low, moderate, high and very high. Naturally, the level of stress influences in different ways performance in sport. If the moderate stress improves, the high and very high levels diminishes performance in sport, because the last two increase anxiety, which is often present in sportsman state of mind. High anxiety leeds to an increased performance in sport.

The sportsman who are not consciousness about stress they experience, this leeds to an increased level of performance in sport and installation of anxiety, which creates two-ways state of mind.

2. We have proposed to identify stress factors in sport activity, and also, to find out how to regulate states of stress. There for we applied a questionnaire to a group of sportsman, who are in the field of performance for 8-10 years. The basic questions aimed to specify if the subjects are able to identify the stress factors and their results.

We must specify that 40 sportsman – handball, basketball, football – and 20 athlete were asked to compete the questionnary.

The subjects understand what does the stress mean, but they can not delimitate anxiety and the ways this influences their behaviour.

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Specifying, that stress factors can be different we could delimitate the surrounding environment with all it contains, from person to situation, might represent stress factors. Thus we found out that stressors can be: persons; the subject – matter between persons; training conditions; the competition; familiar environment (circumstances at home, school, etc); the relationship with the others, etc.

The anxious state is created by, and depends on, the environment, the requirement and the subjects assumption from others. From this point of view, anxious state is dynamic, changing from a moment to other (permanent changing). It must be specified that the behaviour and the attitudes have an important role.

On the other hand, we could make the conclusion, that anxious state depends on self-awareness and self-appreciation of the possibilities. Insecurity is a characteristic of those with self esteem and this leeds to an increased anxiety.

Good relationship with the others, amicability decrease anxious state of mind, increase self-confidence and determine performance in activity. The subjects feed-back regarding the relationship between coach and athlete is important for increasing self-confidence, but also it is incontestable that the coach has to be a good psychologist who influences positively the psycho-social field of the activity.

3. The best results in regulate states of stress, has been achieved in case when the coach hold possession of knowledge about psychology, he is a good observer.

The use of different relaxing techniques have good results in regulating states of stress, but in our case we have determined that the best results were given by the cognitive strategies. Communication, by it means, which determines rational thoughts, verbal appraisal of the subjects possibility by the coach, teachers, parents leads to favourable attitudes for great achievement in performance.

Thus, it has been proven once again the importance of communication in all the actions.

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STUDIA UNIVERSITATIS BABEŞ-BOLYAI, EDUCATIO ARTIS GYMNASTICAE, L, 2, 2005

NUTRITION IN SPORT

POPOVICI CORNELIA [1], MONEA DAN[2], POPOVICI CORNEL [3]

REZUMAT. Alimentaţia în sport. Importanţa nutriţiei în menţinerea sănătăţii şi formei sportive este bine cunoscută. Alimentaţia raţionala, asigură dezvoltarea optimă a sportivilor, sporeşte performanţele sportive. Alimentaţia trebuie să fie organizata ţinând cont de particularităţile proceselor metabolice în diferitele probe sportive şi ea este determinată de particularităţile schimbului de substanţe şi intensitatea variată a efortului fizic. Alimentaţia sportivilor trebuie să fie calitativă şi suficientă cantitativ, să compenseze pierderile energetice şi plastice ale organismului. Sportivii trebuie să acorde o deosebită atenţie regimului alimentar. Repartizarea raţiei alimentare zilnice în prize coincide cu graficul de antrenament.

The importance of nutrition in keeping the health and sportive form is well known. The nutrition must be rationale to insure the optimal evolution of sportsman and to increase the performances. The nutrition must be organized having in mind the peculiarities of metabolic processes in different events and is determined by the peculiarities of substance changing and by effort intensity. It must be qualitative and quantitative to compensate the energetic and plastic lost of the human body. These energetic values are different in various sports taking in account the length and intensity of effort. The energetic value of daily nutrition during hard training and competitions for men are 4500-5000 kcal, for women are 3500-4000 kcal.

The energetic value of nutrition rate can be determined by some special values. As to these values the basic energetic value: in an intense and short effort – 500-800 kcal; in an intense and long effort – 800-1500 kcal.

Keeping the stabile weight of the human body is a clue of a correct and rational and qualitative nutrition. One certain increase of body weight may have a positive value if is connected to the developing of muscular system and not fat.

Physical effort requires a lot of proteins used with plastic means to reestablish the tissue, cells and to keep them in a good working shape. The high level of proteins increases the work capacity, diminishes the tiredness and in a short time establishes the force and work capacity. Proteins have a positive action in: increasing the excitability of nerves system and reflex activity, also in raising the time needed by the appearance of reactions and maximum force concentration in a short period of time. Assuring the high level of nutritive proteins is very important in accelerate efforts and maximum

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and under maximum intensity of force, because in these conditions the protein metabolism is intense.

A special attention in nutrition is given to the lipotrope nutritive substances because in long and under maximum effort with a medium intensity the level of water infiltration emerges. We can find these substances in: eggs, cheese, chicken meat, and fish. The level of proteins is higher in the resting period and after an intense effort. This has a knock on effect on the muscle protein synthesis and contributes in raising the muscular force.

The use of fat in nutrition has special characteristics. In force and speed the effort using the fat, as an energetic value for muscular activity is limited.

Is well known that in intense and under maximum workout the high norms of fats contribute in increasing the kenotic corps in urine and blood. In exercises with a medium and moderate intensity the ce-tonimia is low but it may appear the water infiltration in liver. In nutrition is included a moderate rate of fats, especially when we have long exercises with maximum and undermaximum intensity.

In nutrition of a sportsman, who makes an intense effort, the rationale alimentation is considered to be the correlation proteins and lipids 1:0.7. The maximum fat has to be consumed when practicing sports such us: winter sports, swimming, in daily nutrition the vegetal fat must be 25% from the daily necessary fat.

Glucids serve as an important source of energy for the muscular work because in human body they transform themselves in anaerobe and aerobe conditions. Glucids are used as a source of energy and contributes in decreasing the acidosis with appear in intense muscular effort. In long physical exercise increases the glucids level. The nutrition must consist in proteins and glucids. To maintain the high level of glucoses in blood in a long physical exercise the sugar must be unvarying with the time.

In physical exercises the necessary of vitamins increases. The mineral and vitamins increase the work capacity and decreases the period of recovering. Vitamins B_1 and C have a benefic action upon human body, and decreases the tiredness in a short period of time. The sportsman needs an overdose of the following vitamins: B_1, B_2, B_6, folic acids, pentatonic acid, and Para - amino benzoic acid. The B_6 vitamin contributes to the substance change, has lipotrope peculiarities and takes part in the synthesis of adenozintrifosfat. The E vitamin has an antioxidative role in human cells; it takes the muscular activity to a normal level. Therefore in order to achieve high performances the human body needs some nutritive supplement and vitamins.

In the muscular activity the acidosis appears. This might appear in altitude training. It has a negative effect on the human body by accumulating free radicals which modify the normal reaction of tissues, decreases the resistance in high effort. To prevent the acidosis is recommended to include in daily nutrition some elements like: milk, fruits, and vegetables. The organic acid, salt which is in the composition of fruits and vegetables form a reserve of alkaline equivalents and decrease the risk of acidosis. Fruits and vegetables must represent 15-20% from the daily nutrition.

The necessity of phosphor is raised 1.5-2 times. We find this important element in: meat, eggs, cheese, pressed cheese. The human body also needs iron and magnesium. Iron contributes in forming the source of oxygen in the muscle and increase with 20%. Magnesium has alkaline proprieties. In the process of the training, the sportsman loses an important quantity of sodium. For this reason the necessity of a daily quantity of salt has to be increased up to 20 grams.

We have different forms of nutrition in sport:

- nutrition in normal training conditions
- nutrition in intense training and competitions
- Nutrition in the period of long competitions.

Mainly the sportsman uses the first form of nutrition, the other two are used on periodic bases and it has to be rationale with a high nutritive and biological value.

In intense training days and competitions there are some restrictions in nutrition. So there will be less fat meat, vegetables, cabbage, cooked meals. We must consume fruits, juices from fruits, chicken meat, rice, fish, and in long efforts chocolate, C vitamin, glucoses, refreshments with sugar and starch.

After finishing one competition is recommended as preventive treatment 150 grams of glucoses or sugar, to decrease fats from nutrition and to include eggs, fish, and cheese which have lipotrope proprieties.

The sportsmen have to pay constantly attention on their nutrition. Their diet have to be structured as follows: 1) 4 meals per day, 2) the time between meals shorter then 5 hours, 3) the meal before the effort, 4) the meal to be consumed 3, 5 hours before competitions, 5) there will be no training without eating, 6) after finishing the training to wait 15 minutes before having the meal.

The daily nutrition has to be done in accordance with the training schedule. In high physical effort during morning we decrease the energetic value of breakfast and increase the energetic value of lunch. During the evening training we increase the energetic value of breakfast and decrease the energetic value of lunch. So the distribution of daily nutrition will be breakfast: 30-50%, lunch: 35-50%, dinner: 25-30%, snack 5-10%.

Many things can be said about the importance of nutrition when undertaking physical effort.

At present we award a big importance to nutrition and to nutritive supplements with minerals.

A normal nutrition must guarantee the optimal quantity of nutritive substances and minerals that the human body need in various conditions.

We always have to consider that the administration of the minerals and nutritive elements is a responsible act and it must be done in collaboration with doctors.

It is also wrong to consider that by feeding the body with vitamins or nutritive supplements we can substitute the lack of as well as the wrongs from nutrition. We always have to take into consideration the pathological effect that can appear.

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WHY DO ATHLETES CHEAT?

MARIUS CRĂCIUN[1]

REZUMAT. De ce trişează sportivii ? Având în vedere frecvența tot mai mare cu care este întâlnit comportamentul de a obtine avantaje incorecte asupra adversarului, ne-a determinat să ne îndreptăm atenția înspre factorii care influențează acest comportament şi înspre felul în care este definit/perceput de către sportivi. Pentru a investiga aceste lucruri am ales o metodă de cercetare calitativă – focus group-ul. Astfel, în urma discuțiilor libere, care au avut loc într-un cadru mai puțin formal, cu 34 de sportivi practicanți de sporturi fie individuale (judo şi box) fie sporturi de echipă (fotbal şi voleyball), am identificat persistența a trei factori care motiveaza sportivul la comportamente incorecte*:* tipul de sport practicat, tipul de reguli impuse şi felul în care sunt aplicate aceste reguli. În fine, sportivii percep actul de a trisa ca pe un continuum de comportamente care variază între dopaj şi "*smart play*".

Introduction

Cheating in sports is not a new phenomenon. What is new is the lengths that some athletes will go to win a medal.

Recent doping scandals have highlighted the sophistication and scientific know-how that is now going into illicit drug making and the win-at-any-cost philosophy. Cheating seems to occurs in all sports. This is not to claim that all sports players cheat, but rather that each sport involves someone who cheats. Revelations about athletics, cycling, baseball, the football, swimming and more have come to light in recent years. There is nothing new about cheating in sports, though: there are numerous historical references to it from the commencement of modern sport.

- 1904 - Fred Lorz - (Olympic marathon winner) admitted travelling in a car during race!
- 1936 - Dora Ratjen (4th in women's high jump at Olympics) was found to be a man
- 1980 - allegation that Russian officials had opened the doors of Moscow stadium at key moments to create a tailwind to assist their javelin throwers.
- "Cheating", or attempting to gain an unfair advantage over one's rivals, is endemic in sport (but also in business or politics).
- Evident at an *individual* level (see high-profile cases of athletes found guilty of using banned substances).

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- And also at a *team* level (e.g., the rugby team from Baia Mare, tested positive for anabolic steroids after a match in first roumanian division).
- Cheating includes many different types of behaviour:
- Doping
- Gamesmanship
- "Professional fouls", e.g. shirt tugging
- Quest "to provide an unfair advantage over the opponent; cheating may be 'unsportspersonlike', aggressive behaviour or inappropriate moral action, but *always with the intent to gain an advantage*" (Roberts et al., 2004)

Research on cheating in sport

Many reviews of research on athletes' use of banned drugs - but few studies of *why* athletes cheat.

- Even clear athletes will go to extraordinary lengths to gain unfair advantage
- Weinberg & Gould (2003) - Survey of US Olympic athletes showed 60% would take an undetectable banned substance that would guarantee success even if
- Given this background, several questions still remain unanswered:
- What does "cheating" mean to athletes?
- Why do athletes engage in such behaviour?
- The present study attempted to answer two key questions :
- How do athletes define or describe cheating?
- What factors influence the perceived nature/prevalence of cheating in sport?

Later, we shall also consider some possible *explanations* of cheating behaviour.

We have decided to use a **qualitative approach** rather than a (quantitative) survey because we were interested in athletes' subjective experiences and perspectives.

We have decided to sample respondents across **different types of sports** ("contact" and "non contact"; "team" and "individual")

Methodology

Focus groups have been chosen for two main reasons:

- Pilot study showed athletes enjoyed discussions more than questionnaire responding

- Focus groups encourage athletes to clarify/explain their opinions in an informal setting

In focus groups, a number of respondents from the population being studied are gathered in an informal setting, and encouraged to talk about specific issues (Linda, 1982). A focus group is a qualitative technique developed by social scientists in which 6-12 individuals are brought together and interactively give their views and impressions upon a specified topic. These are used to evaluate attitudes towards the topic. Focus groups are usually homogeneous with members being generally of the same age, gender and status, to encourage participation. The participants of a focus group typically

share some characteristics and features that are of particular interest to researchers. The involvement of a moderator who can coordinate the group without inhibiting, intimidating or leading the respondents is necessary, so that ideas are free-flowing and all opinions are expressed (Krueger, 1994). The directed group discussion is repeated with other participants until some consensus is reached and dominant trends, patterns and opinions have come to the fore.

Participants

Contact Sports N=20		Non-contact Sports N=14	
Team N=16	Individual N=4	Team N=6	Individual N=8
Soccer / Handball	Boxing / Judo	Volleyball	Track & field

Table 1. The number/nature of participants involved in the study

Semi-structured focus groups were based on:

- Introductory question on positive and negative aspects of behaviour in sport
- Questions on nature of cheating and perceived influencing factors
- General questions on sportspersonship
- We used videotapes of "controversial incidents in sport" to stimulate discussion which included:
- Mike Tyson vs. Evander Holyfield -1997
- Rivaldo incident - Brazil vs. Turkey – 2002
- Goal scored by Diego Maradona with hand in the quarter - final match of Word Cup, between England and Argentina, played 22 June 1986

Finding 1: What is cheating?

Subjects saw cheating as an unfair advantage:

- "*taking an unfair advantage over your opponent*"
- Also saw cheating as a "*short cut ":*
- "*we're busting our asses off to be the best we can be, but they're taking a short cut.*"
- Finally, believed cheating was *breaking the rules*:
- "*For most sports you have a set of rules which are the consensus among the sporting community so basically anything that contravenes that consensus of what the standards should be [is cheating]*."
- Proposed that cheating involved a continuum of behaviours, ranging from doping to "smart play"
- *Doping* seen as one most serious forms:
- "*it is still probably worse to take drugs than an impulse action on the field.*"
- *Intentional* behaviour (including harm) also more serious:

- "*if someone intentionally injures someone and genuinely injures them, that's cheating*"
- *Smart play* seen as less serious (and expected):
- *"if one lad is going for the ball and he's ahead of me I'd pull his jersey like, I just see that as part of the flow of the game"*

Finding 2: Factors affecting cheating

First factor: Type of sport

- Doping perceived to be more common in track-and-field than in other sports:
- "*[in track-and-field] if you're going to cheat it's going to be on a big scale like taking drugs … whereas there could "be about 40 or 50 forms of cheating during a football game*"
- Doping not regarded as a major issue in team sports:
- "*soccer is so team orientated that one individual pumped up on drugs isn't going to win it for a whole team … compared to an (individual) athlete*".

Because of lack of scientific evidence we consider this point of view an invalid one.

Second factor: Nature of rules

- Clarity of rules in different sports is important e.g. track-and-field/rowing rules reduce possibility of smart play. BUT some rules in team sports (e.g., tackling in soccer) too vague - allow ambiguity.
- Third factor: Application of rules by officials
- Application of rules must be consistent :
- "*the [referee] knows that people are going to try and take advantage so I think the onus is more on him … if you get half a chance to steal a few yards or hold someone's jersey off the ball you're going to do it.*"

Conclusions

Athletes appear to have a sophisticated understanding of "cheating".

They perceive it as a *continuum* of behavioural activities - ranging from "doping" to "smart play". But *why* exactly do athletes cheat? Why do athletes cheat?

This study does not provide us with empirical evidence, but certain explanatory theories for the above findings do exist:

1. Economic explanations - financial incentives for cheating are increasingly large
2. Sociological explanations - breakdown in rule adherence in society, generally
3. Psychological - explore mind of "cheater"

Psychological explanations

1. Level of "moral reasoning" is important (e.g., "everyone's doing it"; "it's ok as long as I'm not caught")

2. Motivational explanation - what "success" and "winning" mean to athlete:

- Ego-oriented - success means being better than others

• Task-oriented - success means achieving a certain standard - better than oneself

Some evidence that ego-oriented athletes are more likely to engage in cheating behaviour than task-oriented athletes.

Future research

• Extend study of athletes' understanding of cheating using survey methodology

• Explore coaches'/managers' views on cheating with those of athletes

• Investigate the link between athletes' task- and ego-orientation and their propensity to engage in cheating

• Seminars on values/ethics in sport

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THE ROGOKYO ANALYSIS

VODĂ ŞTEFAN[1], POP IOAN-NELU[2]

REZUMAT. Analiza ROMGOKYO. Pornind de la premisa ca Judo-ul modern se bazeaza pe lupta cu doua prize Romgokyo vede initierea in Judo pe baza procedeelor folosind prizele Hon. Lucrarea in extenso prezinta sistemul Romgokyo, cerintele tehnice de acordare a gradelor Kyo 7 Dan, esalonarile si progresiile pe care se bazeaza Romgokyo, progresiile tehnico metodice.

Encourages:

1. Fighting with two grabs
2. Fighting using Hon grabs
3. Judo in motion
4. Fighting on both sides
5. Combinative fighting
6. The attack
7. Ashi Waza
8. Opponent back-turning technical procedures
9. In equilibrium standing finalities
10. Ai Yotsu / Kenka Yotsu strategies

Starting from the premise that modern Judo is based on two grabs fighting, Romgokyo thinks that the judo initiation should be based on Hon grabs procedures. Why Hon? Firstly, because this is a technical grab as compared to Oku Eri, which is a power grab. This is not to say that technical procedures such as back-turning using the Oku Eri grab or the Kubi Nage grab are not encouraged by this system. These grabs are encouraged starting with Kyo 4 / Kyo 2, where we'd like to implement the Kenka Yotsu strategy (fighting with reverse grabs). If Uke has a right grab, then Tori fights with a left grab; if Uke has an external grab (Oku Eri), then Tory uses an internal grab.

Another Romgokyo priority is attacking with back-turning techniques instead of the Te Waza attacks without an Ashi Gari back-turning, or, put differently, "leg grabs". Why? Because in judo the opponent back-turning attack is highly representative. And from a pedagogical point of view, leg grabs are not excluded by Romgokyo; they are purely and simply kept on the top shelf, as inaccessible as possible for the judoka kid. Leg grabs may bring about an immediate success, which

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will satisfy both the fighter and his trainer, so they won't invest in the huge work needed to develop stereotypes such as opponent back-turning techniques.

Romgokyo encourages Ashi Waza texhniques and independent on/out combination as well. The Ashi Waza back-turning procedures conjugation (O Waza / Ko Waza) is the second strategy of Romgokyo. Exercises of 2, 3, 4 and even 5 element combinations will lead the little judoka to combative judo and to the exploiting of the second Hando no Kuzushi intention.

The combinative judo, the dodging offered by the Kenka Yotsu stategy, as well as the Hando no Kuzushi that are encouraged by Romgokyo will finally lead to a Hazumi-type judo. Hazumi is that type of judo where the main objective does not lie in the opponent's unbalancing, but in recognizing the situations where Uke is vulnerable and in taking advantage of such situations. In other words, in the KUZUSHI, TSUKURI, KAKE series, the most important role is played by Tsukuri (or how you position youself offensively), which is why Romgokyo uses a large variety of Tai Sabaki, and links Tai Sabaki to the diverse Shin Tai directions (forward, backward, laterally, diagonally or circularly). Kyuzo Mifune said that Judo starts and ends with Tai Sabaki. By the way, it is rumored that when Jigoro Kano saw at Kodokan (!) the first Aikido demonstration of Sensei Morihei Uieshiba, he said that this is how he had imagined Judo.

Rhythm and tempo are the two other factors which we would like to exploit in the proposed Gokyo. The execution rhythm and tempo could only be put to good use by practising judo in motion, where attacks and Gaeshi counterattacks combine and alternate, as well as in an Ashi Waza dominated system.

Ura types of direct counterattacks are placed by our Gyoko on the highest shelf as well, that is in the last Kyos, in order to encourage combative judo. The Sutemi and Maki Tomi techniques have the same destination (the upper shelf). In his "The Fighting Spirit of Judo", Yasuhiro Yamashita mentions among the principles for a modern and efficient judo (included in this syllabus) the following suggestion: "No Sutemi!" What we want to achieve is the promotion of a way of fighting in equilibrium. This is the premise for combative judo.

In what follows we will present the principles that Yamashita proposed for developing a modern syllabus:

1. Techniques must be performed while moving
2. Insist on Ashi Waza
3. Avoid excessive grabs
4. Never use Maki Komi
5. Develop 3 to 5 element combinations

But we can also use the experience of some federations such as the German and the Japanese one, whose regulations for children competitions interdict:

1. Nape grab
2. Knee Morote
3. Attacks with only one grab

4. Attacks with moving grab
5. Ura counterattacks

Having in mind the building of a system based on multilateral development, and to which a specialization can be added later on (Tudor Bompa), we think that we have managed to arrange the principles and technical procedures in such a manner that the children generation that goes through this system would have all the knowledge and skills needed in order to be individualized in national teams and later on for international confrontations.

The paper in extenso presents the Romgokyo system, the technical necessities to obtain Kyo 7 Dan grades, the echelons and progressions on which the Romgokyo is based, technical and methodical progressions.

STUDIA UNIVERSITATIS BABEŞ-BOLYAI, EDUCATIO ARTIS GYMNASTICAE, L, 2, 2005

SPORTS FACILITY MANAGEMENT

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REZUMAT. Managementul facilităților sportive. Facilitățile sportive există de mii de ani. Culturile străvechi, egiptenii, grecii, romanii şi chinezii au investit în crearea facilităților sportive pentru promovarea sportului, pentru o varietate de scopuri, incluzând pregătirea militară, recreerea, bunăstarea fizică a oamenilor. Managerii sportivi recunosc faptul că facilitățile influențează organizația în mai multe moduri. Desigur numărul, tipul, calitatea programelor şi activităților sportive sunt direct influențate de facilitățile existente. În al doilea rând, calitatea facilităților sportive este o reflectare directă a organizației şi a programului său. În al treilea rând, facilitățile sportive sunt bunuri foarte importante ale organizației care pot afecta pozitiv sau negativ generarea de venituri, imaginea mărcii şi satisfacția consumatorului.

Introduction

Sports facilities have existed for thousands of years. Ancient cultures, including the Egyptians, Greeks, Romans, and Chinese, invested in the creation of sports facilities that were used to promote sport for a variety of purposes including military readiness, entertainment, and physical wellness of their people (Farmer, Mulrooney & Amon, 1996). Contemporary sports managers agree that appropriate facilities are an important component of sport. Certainly, there are many examples of how the management of sports and recreational organizations is influenced by sports facilities. A professional sports team, for example, may be financially dependent on a facility that not only provides the appropriate seating capacity, but also offers revenue generation opportunities such as luxury suites, club seating, retail space, and stadium restaurants. A high school that wishes to field swimming and diving teams may only do so if there is a regulation-size competition pool with diving well available. The sports manager would explain that the sports facility is a critical resource for the organization.

Sport by nature depends on facilities. Just about every sporting activity requires a specific venue, playing surface, or area and most likely some type of equipment. Sports facilities may either be indoor or outdoor and may be naturally occurring-mountains, lakes, rivers, ponds-or manufactured-running tracks, bocce court, golf course, or stadium. Regardless of the type, size, or number of facilities available to the sports organization, the sports manager is actively involved in planning, constructing, financing, maintaining, and operating these facilities.

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Sports managers recognize that the facility impacts the organization in many ways. Certainly the number, type, and quality of sports programs and activities are directly influenced by available facilities. Secondly, the quality of the sports facility is a direct reflection of the organization and its programs. Thirdly, the sports facility is a critical asset to the organization that can positively affect or negatively impact revenue generation, brand image, and customer satisfaction.

Most sport management programs require students to take a specific course in sports facility management because of the broad recognition of the importance of facility management to the sports organization. Very specific issues, practices, and skills are related to the management of the sports facility and must be mastered by sports professionals. The body of knowledge related to sports facility management encompasses such topical areas as planning, designing, financing, and constructing facilities as well as scheduling, budgeting, finance, marketing, operations management, box office management, maintenance, building systems operation, feasibility studies, economic impact, food service, security, risk management, loss prevention, inventory control, ticketing, advertising, sponsorship, and quality control systems.

Types of Sports Facilities and Their Management

The most familiar type of sports facility is a public assembly facility (PAF), a large structure created to facilitate the gathering of large groups of people who come together for the purpose of viewing or participating in an event. Stadiums, arenas, and coliseums are categorized as PAFs. Tiered seating, specialized playing or performance surfaces, spectator amenities (such as rest rooms and food service areas), and performer amenities (including locker rooms and training rooms) usually characterize the PAR These buildings host sporting and entertainment events such as concerts, pro sports team games, trade shows, and family shows (e.g., ice shows, circuses). They are usually designed to accommodate one or more sports team tenants that may include a professional sports team (major or minor league) or a top-level college team.

Convention centers, civic centers, auditoriums, exposition halls, theaters, and concert halls are also PAFs. Although the buildings may not be specifically designed to host sports activities, they are designed for public assembly and for the accommodation of entertainment, professional conferences, shows, and other performances or activities that provide entertainment or education for the community, enhance civic culture, generate tourism, and generally improve the quality of life for residents and visitors alike. Sports facility managers are often responsible for managing multibuilding complexes that include any number of PAFs. However, one standard combination is the sports arena or civic center and the convention center.

Other sports facilities are designed primarily to accommodate individual or smaller groups of users rather than large audiences of viewers. Such facilities might include a mountain ski resort, sports hall of fame, tennis court, golf course, gymnasium, municipal soccer field, state park, natatorium, equestrian course, or health and fitness club. This segment of the industry is clearly the largest, yet the larger PAFs

usually receive the most attention in the study of the sports facility industry. Stadiums, arenas, and convention centers, because of their affiliation with sports teams and the entertainment industry, capture public attention because they receive daily media coverage, whereas the smaller user-oriented facility operates in virtual obscurity. Although there are thousands of PAFs across the United States, there are many more small participant-oriented facilities. Virtually every state and town, high school, recreation department, college and university, military base, and health and fitness club regularly manage a variety of different sporting facilities and host numerous sports and entertainment events and activities at those facilities. These facilities usually operate on a much smaller scale than the large PAFs, but their managers are faced with similar responsibilities, issues, and challenges.

There are many different types of ownership and management of sports facilities. Some facilities are owned by governmental entities such as cities, towns, counties, states, or the federal government. Nonprofit organizations or private interests, such as private management companies, pro sports teams, individuals or corporations, own others. Sports facilities are not necessarily owner managed. Most facilities owned by a nonprofit organization or a governmental entity such as the state or the city utilize some type of advisory board or commission to act as an agent or representative of ownership. The board or commission may serve as a policy-making body or may be responsible for oversight and control of the facility. The commission is ultimately responsible for selecting an appropriate management team to operate the facility.

Sports facilities may be owner managed in a model called *in-house management.* Historically, universities, states, and cities chose to manage their own buildings. However, when buildings failed to meet owners' expectations, other management alternatives were considered. For some organizations, in-house management created a variety of problems related to inexperience; political patronage; burdensome public regulation and policies; and lack of resources to attract events, meet customers' needs, and purchase needed equipment, technology, or supplies. In these cases, owners have considered the private management alternative.

Several private companies specialize in managing sports and allied facilities. These management groups promise to deliver more efficient operations and expect to reduce the facilities' operating deficit. Relying on their expertise and connections within the sports, tourism, hospitality, recreation, and entertainment industries, they are usually able to create a more comprehensive and more high-quality schedule, hire more skilled managers, and negotiate better deals with sponsors, promoters, and suppliers. The facility owners secure a private management company through a selection process that begins with a *request for proposal,* or *RFP.* This comprehensive document provides an overview of the current state of the building and its operations, and it details the owner's expectations for new management (Mulrooney & Farmer, 2001). The RFP is then sent to all major private management companies, and a notice of the availability of the RFP is posted in trade publications. Interested parties then express their interest in the facility by preparing a bid within the time

limit specified in the RFP. Bidders are provided with the opportunity to tour the facility and discuss the RFP with the facility's owner or governing body representatives. The private management company/bidder may then wish to review the RFP in more detail and are allowed to submit additional materials to supplement their original bid proposal. Once all proposals that have been received by the posted deadline are reviewed, finalists are chosen and are asked to make a personal presentation to the building owner or representatives. Once presentations are completed, a top choice is selected and both parties enter into contract negotiations. The signing of the contract by both parties signals the official completion of the RFP process.

The RFP process is an important one to facility managers because many critical functions in the facility are outsourced in a similar way. Food service, security, maintenance, parking, and other functions can be outsourced. Utilizing private companies to provide these services allows the facility manager to acquire specialized expertise and is often seen as an efficient way to carry out functions that might otherwise be a very expensive and ineffective use of limited internal resources.

The Role of the Sports Facility Manager

Sports facility managers are essentially responsible for two functions: (1) the operation of the building itself, and (2) the planning and execution of events or programs within the building.

Managerial tasks related to the operation of the building include building systems management, maintenance, and the hiring of building administrative staff. A good sports facility manager has a working knowledge of the internal mechanical systems of the building including heating, ventilation, and air conditioning (HVAC), electrical, plumbing, and refrigeration. A facility manager must also be aware of issues related to building design and construction including weight-bearing capacity of the roof, accessibility, and building material composition. A facility manager must understand the building's structure and equipment and also be able to coordinate a sound maintenance plan that assures the building is not only in top condition, but is safe for users, employees, and spectators alike. The sports facility manager need not necessarily be an expert in mechanical engineering, but he or she must understand how the building works.

Other responsibilities that come under the heading of managing the building may include scheduling and booking events; marketing the facility to promoters, travel coordinators, and convention planners; budgeting; human resource management; public relations; marketing; and ticket, advertising, and sponsorship sales.

The second responsibility of the facility manager is event management. This function is commonly called operations, or "ops" management, but we use the term *event management* here to represent this function. Event management consists of the planning and execution of the wide variety of functions and activities that take place in a sports facility every day. Depending on its size and accommodations, a large public assembly facility might host as many as seventy different events in one

month, including concerts, family shows, meetings, and professional sports contests. A local recreation sports complex may host thirty softball games, a youth sports banquet, and an instructional clinic in one weekend. A college field house may host a faculty reception, intramural floor hockey game, karate class, men's and women's basketball practice, cheerleading tryouts, and a racquetball tournament in one evening. Regardless of the size or configuration of the sports facility, most sports facility managers suggest the bulk of their time is spent scheduling, planning, and executing events.

Most PAFs have an entire department or unit with an events manager or operations director who is designated to oversee event management. The operations director/event manager is responsible for coordinating all needed services to support each event. He or she purchases supplies, maintains equipment, and hires appropriate staff to guarantee the event goes off as planned. The event manager/operations director may directly oversee laborers, stagehands, electricians, musicians, security, food service, customer service, medical staff, transportation, parking, ticket takers, concession workers, and other part-time workers. The event management function includes managing most of the behind-the-scenes staff that is responsible for planning and executing an event. Event staff works closely with event producers to ensure that all the physical requirements for the event are in place, the equipment is available and functioning properly, and the building is configured and set up appropriately for the event. To summarize, the event management function encompasses preparing the building for each event according to specifications, ensuring the event goes off smoothly and then cleaning up after the function.

For the purpose of our discussion, it is best to think of event management as *micro-level operations management.* That is, the day-to-day activities of the building, carrying out its schedule of events, and hosting programs represents only one level of operations management within a sports facility. The other level of operations management takes place on a macro or strategic organization wide level. At this level, management translates its selected strategy into action steps or plans in each of the organization's key functional areas, a process referred to as *operational planning.*

This distinction is an important one because operations management in sports facilities varies significantly from what is traditionally considered operations management in most businesses (Mulrooney & Farmer, 2001). For most nonsport organizations, operations management consists solely of what we refer to here as operational planning by which strategy is translated into action across the organization. For sports facilities, the challenge is not only how to put the strategic plan into action, but how to plan and execute hundreds of events, programs, and activities every year. Sports facility management experts Peter Farmer and Aaron Mulrooney suggest the difference is that "operations management in a sports facility focuses on *how* services are produced, rather than the production of those services; this is the traditional definition of operations management" (Mulrooney & Farmer, 2001).

For example, a sports business such as professional sports team is interested in producing a high-quality team that repeatedly wins championships. Their manager is

focused on the game, the winning, and the team. A concert promoter is interested in securing talented performers who attract ticket buyers. In each case, management is focused on the product. The sports facility manager, however, has a different focus. He or she is keenly interested in how the game or concert is presented or produced. Pertinent issues for the sports facility manager include the sound system, the lighting, and cleanliness of the rest rooms, proper ordering and preparation of food, safe parking lots, clear walkways, and clean locker rooms.

To better understand the difference between the traditional definition of operations management and event/operations management in the sports facility business, consider both the business and corporate-level strategies of Callaway and how they are implemented. At the business level, Callaway follows a product differentiation strategy for its golf division. It provides high-quality merchandise, and it has sold more golf clubs than any competitor at the highest prices in the industry because of high-tech oversized equipment that is considered superior by the customer. To achieve this success, Callaway followed a basic marketing strategy, spending most of its marketing budget on televised golf events and on print publications and pro tour promotions (Stogel, 2000). At the corporate level, Callaway followed a growth through diversification strategy by creating a separate Callaway Golf Ball Company. This subsidiary was started from scratch with the construction of a manufacturing plant, the hiring of hundreds of employees, and the development of the Callaway golf ball, positioned at the premium end of the industry. Examples such as these illustrate that coordination among the functional areas of an organization (marketing, research and development, manufacturing, computer systems, and human resources) must occur if strategies are to be implemented successfully.

In essence, once a strategy is formulated or chosen, it must be translated into terms that can be understood and acted on at the operational level. As shown in Figure 1, on the macro level, operational planning is part of the implementation stage of the strategic management process.

Contrast this traditional definition of operations management with operations or event management in the sports facility industry. Consider another golf-related example- the golf course where the golf operations manager oversees the production of various events and programs at the course. He or she would be responsible for coordinating tee times, scheduling tournaments, and providing high-quality customer service.

We might think that once goals are set and operational plans are in place both on the macro and micro level that management's responsibilities would largely be complete. However, management is responsible for monitoring performance and for ensuring that actual performance is consistent with the organization's standards or goals.

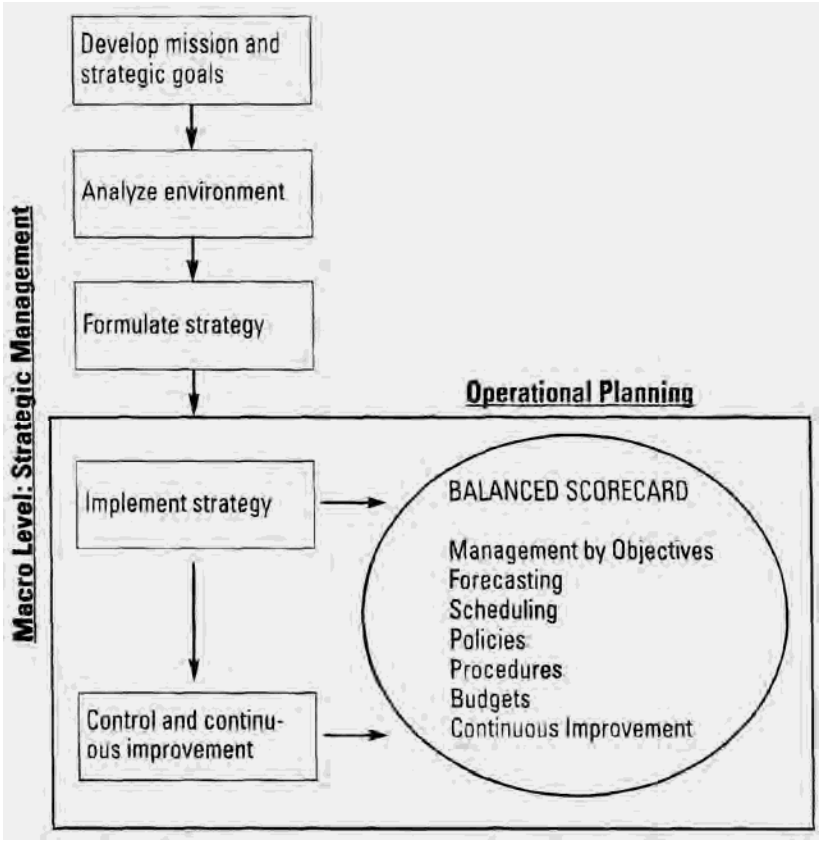

Figure 1. The Relationship of Operational Planning to the Strategic Management Process and the Event Management Process.

This is the control function of management, and it requires that performance be monitored and action taken to solve problems and find ways to improve performance on an ongoing basis (see Figure 2). Control is equally important on the macro and micro level of the organization. Sports facility managers must be concerned with how the organization is carrying out its strategy and also with how it is meeting its daily business objectives in planning and executing events.

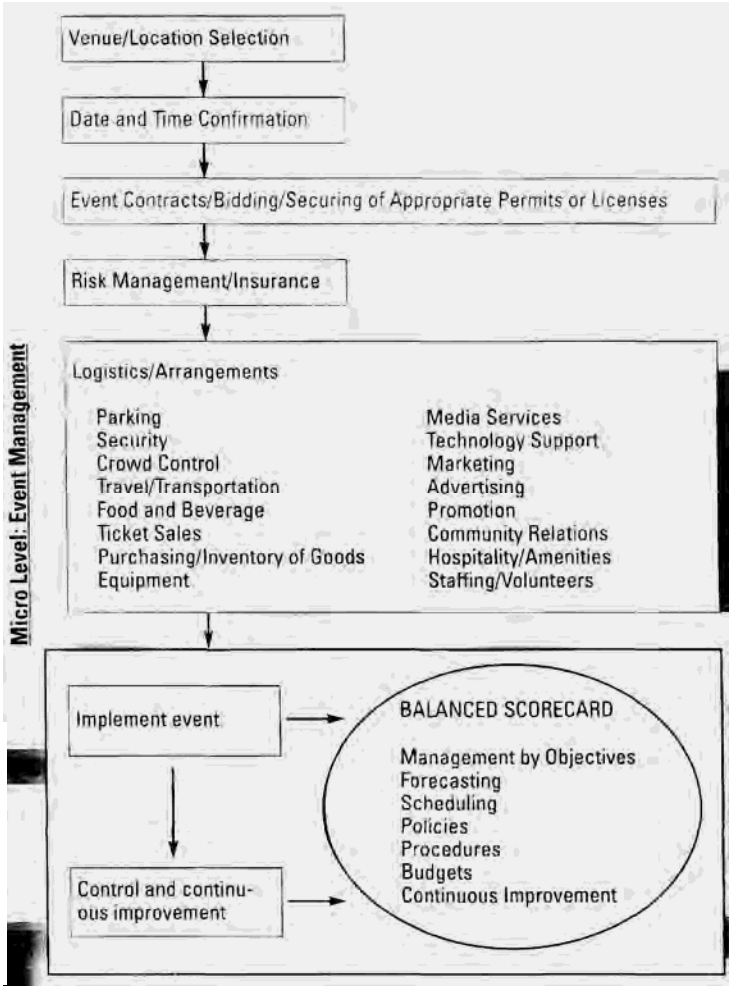

Figure 2. The Relationship of Operational Planning to the Strategic Management Process and the Event Management Process (continued).

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GENERAL ASPECTS REGARDING THE WATER POLO GAME CONDITIONED BY MODIFICATIONS IN ITS RULES

BALOGA ISTVAN[1]

REZUMAT. Aspecte generale privind jocul de polo pe apă în urma modificării regulamentului de joc. In prezenta lucrare am dorit sa prezint unele aspecte generale asupra jocului de polo pe apa atat din prisma spectatorului cat si din punct de vedere al procesului de antrenament in urma modificarii regulamentului de joc. Timpul relativ scurt de la aparitia acestor modificari pana la aplicarea lor, m-a determinat sa elaborez prezentul material in care doresc sa subliniez pe langa importanta interpretarii uniforme ale acestor schimbari in regulamentul de joc si influenta lor asupra modului de pregatire a jucatorilor.

Water polo is a game, that has suffered numerous substantial changes in rules in its over 130 years of existence, in order to this sport to become more accessible, more spectacular, and to attract more adepts from all over the world. At the FINA-TWPC (Federation Internationale de Natation Amateur – Technical Water Polo Committee) Congress held in July 15, 2005 there were modified several articles from the rules of the water polo game. These changes in rules were taken over by the Romanian Water Polo Federation as well, and applied starting September 2005 at the Romanian Cup games, continued with the 2005-2006 edition of the Romanian National Super League games. The relatively short period of time from the appearance of these modifications in rules until it is applied, determined me to elaborate the following material in which I would like to emphasize not only over the new image of the game, but also over the water polo players' training process from physical, technical, tactical and theoretical point of view. A more detailed review should be also elaborated after o longer period of observation over the official games in our system of competitions and international competitions.

The following would be some of the main changes that took effect in the water polo playing rules after the FINA Congress held in July, 2005:

- The duration of the game increased from 28 to 32 minutes of actual play, each of the four periods increased from 7 to 8 minutes;
- The duration of possession of the ball was reduced from 35 seconds to 30 seconds of actual play;
- The break interval between the second and third period increased from 2 to 5 minutes;

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- Penalty throws will be executed from 5 meters and not from 4 meters, therefore the 4 meter area had been modified into a 5 meter area, and outside of its margins free throws would be possible to be executed directly without passing the ball. This rule substituted the previous one, applied for the 7 meter zone;
- Corner throws will be awarded whether the ball had been touched last by the goalkeeper or had been deliberately sent outside the goal line by any of the defending team players. In case the ball was blocked outside the goal line by a defending field player it will not be awarded by a corner throw;
- There will be no longer allowed for a defending player to raise two hands in an attempt to play or block a shot on a goal. The player will be excluded or a penalty throw will be accorded depending whether the violation of the rule was committed inside or outside the 5 meter zone;
- There will be no longer exclusions with no substitutions. The excluded player will be substituted with another player after a period of 4 minutes exclusion from the game.

These modifications in rules will give a new image to the water polo game not only from the point of view of the spectators and players over the game itself, but also over the players' practice process. Obviously there are changes that are easily observed even by those who follow these games only occasionally, as for example: penalty throws are saved easier by the goalkeepers because these are taken from 5 meters and not 4 meters as it was before; or the free throw zone had been modified from 7 to 5 meters, therefore the men to men defense became more aggressive just because the pressing on the 5 meter line shooters it is a lot closer.

To be observed as well is the fact that after renouncing to the 4 meter zone and introducing the 5 meter one the area where most of the exclusions and penalties are obtained had been increased with 25 percent, which means more exclusions and penalty throws will be called by the referees during a game. Consequently new solutions would be necessary to be found in defensive tactics in order to decrease the number of exclusions. On the other hand the number of free throws taken from outside of the 5 meter line did not increase considerably as it was predicted after renouncing to the 7 meter line, contrarily the number of free throws taken from this area remained approximately the same

Another aspect to be noticed is regarding the possession of the ball, which from 35 seconds changed to only 30 seconds, therefore the game became a lot faster but in the same time more hasty, not having enough time to organize the positional offense. The reduced time of ball possession and direct free throws taken from 5 meter after foul, show somehow a more individual game that does not serve the team play.

The increased duration of the actual play somehow gives the possibility for longer games with approximately 15 minutes and implicitly the chance to score more goals. Having longer games, are not only the consequence of longer periods of 8 minutes each, instead of 7 minutes as it was before, but also because the referees are interrupting the game more often as the more aggressive defense played. In

addition the break between the second period and third period became 5 minutes instead of 2 minutes, and it contributes as well to the fact of having longer games. This 5 minutes break is not long enough for teams to go to their locker-rooms and not even equal with the other breaks between periods, thus it seems to be inconvenient not only for the spectators but also to the athletes who are not used to these long breaks and prefer to swim or throw on the goal to prepare for the next period.

According to the modifications in water polo playing rules, in case the ball was blocked outside the goal line by a defending field player it will not be awarded by a corner throw. We could ask then why a ball blocked outside the side line by a field player won't be given to the defending team ? What is going to happen if a ball was only touched or prolonged outside the goal line by a defending player? In case a goaltender is excluded with personal foul, would the substituting player during the time of exclusion be allowed to take the role of the goalkeeper and play the ball with two hands or not? There were already notified cases in the few games played until now under the new rules, leading to contradictions between players and referees that increase tension between the two teams.

These modifications in rules will certainly affect the water polo players training process as well regarding all of its components: physical, biological, technical, tactical, psychological or theoretical.

Among all components mentioned, probably the physical training will be the most emphasized. Since the longer duration of games and decreased ball possession time, water polo players will need to put more attention on swimming practices to develop resistance and speed in force regime under a mixed area of effort. This type of effort is characterized by an aerobe regime and an anaerobe one in variable proportions. After the modifications in rules took effect, water polo players are going to be obligated to swim the same distance of approximately 25 meters under a shorter time in case of a fast break or turn back in defense in case the ball was lost in offense.

Practices addressed to technical training, surely will include more exercises designated to individual blocks in defense or variable shooting procedures in order to avoid the aggressive pressing at the margin of the 5 meter zone in offense.

Regarding the offensive tactical training more emphasize will be offered to different ways of organizing the positional offense under a least time for the reason of the only 30 seconds accorded for ball possession, and also to offensive tactic based on more shoots from outside the 5 meter area. Without doubt defensive tactic practices will have included mostly exercises for aggressive defense at the margin of the 5 meter area, which became so important in developing team strategies, after the modifications in rules in this sport.

A significant part in the entire water polo training process will have the theoretical training in order the new playing rules to be transmitted and profoundly acknowledged by all players from seniors to juniors and children teams.

With an optimal combination of these training factors mentioned above the game will expectantly look different. At the present time, water polo games after the

new modifications in rules seem to look a little chaotic. We have to admit that, there are several misinterpretations of the new rules which make the game to appear chaotic. It is necessary to homogenize the interpretation of the new rules firstly by referees and according to this by coaches and athletes. On this aspect an important role would have not only the international committees but also the national federations in organizing conferences inviting both referees and coaches as well. Based on the accumulated experience in applying in practice of these rules it will be possible to specify a consistent interpretation in the shortest time possible. Only this way the new modifications in rules will accomplish the goals desired: an increased quality of play and a more spectacular water polo game.

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STUDY REGARDING THE NECESSARY QUALITIES TO ACQUIRE THE ACROBATIC EXERCISES AND THE IMPORTANCE GIVEN BY SCHOOL PUPILS TO THESE EXERCISES

PAŞCAN IOANA [1], PAŞCAN ADRIAN [2]

REZUMAT. Studiu privind calitãţile necesare însuşirii exerciţiilor acrobatice si importanţa acordatã de cãtre elevi acestor exerciţii. Studiul de faţã prezintã rezultatele investigaţiilor efectuate pe un eşantion reprezentativ de elevi din ciclul gimnazial, din judeţul Cluj, (N=440) privind calitãţile necesare însuşirii exerciţiilor acrobatice şi importanţa acordatã de cãtre elevi acestor exerciţii.S-a folosit ca metodã de cercetare ancheta prin chestionar scris. Cele douã întrebãri deschise, de opinie, dar şi de cunostinţe, au fost formulate în aşa fel, incât au lãsat celor investigaţi o totalã libertate în formularea rãspunsurilor.

General Considerations

The acrobatic gymnastics comprises a large variety of movements unaccustomed to man's everyday life. However, this type of exercise has an important place in the physical education curricula, mainly in the 5^{th}-8^{th} form pupils.

The large variety of these exercises characterized by adaptability, accessibility and attractiveness afford their practice both by children and adults.

In the consulted literature it is stated precisely that "*each technical procedure has well- defined space, time and effort parameters, the performers' training requiring a gradual development of space and time differentiation, as well as of a high accuracy effort"*. (Dungaciu, P., p.14).

The acrobatic exercises make possible a rapid adaptation to various circumstances, contributing to the development of both the conditional motor qualities and the coordinate ones. The complexity of some elements requires from pupils lots of boldness, determination and firmness. In addition, the acrobatic exercises acquirement imposes and develops simultaneously "*the cognition and self-awareness capacity, collaboration, mutual aid, collective spirit, prompt and precise intervention, self-command, etc."*(Paşcan, I.,2003, p.14).

By presenting the characteristic feature of some acrobatic exercises we want to motivate the aim of our research study regarding the motor and psychical qualities, (considered by the pupils) necessary to their acquirement, as well as to reveal the importance given by pupils to this type of exercises.

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Subjects and Method

The studied group comprised pupils from the 5th-8th forms and the applied research method consisted of a questionnaire inquiry.

The used open questionnaire affords the pupils' entire freedom in formulating the answers. During the 2003-2004 school year were questioned 440 pupils from educational institution in Cluj-Napoca town and from school units located in Cluj District (Table 1).

Table 1

Synopsis of places and number of pupils (boys and girls) per forms

Crt. No.	Place	No. of pupils per forms								Total
		Fifth form		Sixth form		Seventh form		Eighth form		
		B	G	B	G	B	G	B	G	
1	Cluj-Napoca	24	26	26	28	22	24	20	22	192
2	Turda	5	5	6	8	5	5	4	4	40
3	Dej	4	4	4	6	5	5	4	4	36
4	Câmpia- Turzii	4	4	4	4	2	2	2	2	24
5	Gherla	3	3	3	3	2	2	2	2	20
6	Huedin	2	2	2	2	2	2	2	2	16
7	Rural area	14	16	14	14	15	13	12	14	112
8	Total	56	60	59	65	52	52	46	50	440

In subjects' selection we used the stratified sampling "*which involves the group classification in accordance with one or more characteristics*" (Ionescu, M., 2000, p. 270).

Pupils in each selected form were distributed according to gender (boys and girls, separately) into two subgroups. Two criteria were also taken into account, both for boys and for girls, the school performances and the results obtained in physical education discipline. Subsequently, one or two subjects were selected from each constituted subgroup (roughly proportional to the number of pupils in subgroups).

The questionnaire consisted of several questions, but from lack of space we present only two of them:

What qualities do you consider are requisite to acquire the acrobatic elements ?

List them, please.

Do you think your activity performed within the acrobatic gymnastics classes is important to you? Why?

Result Analysis and Interpretation

The first question has as objective to seek information from the subjects regarding the motor and the psychomotor aptitudes, the most significant psychical and volitional qualities (in their opinion) related to the acrobatic element acquiring.

The answers to this question (Table 2) suggest that the fifth form schoolboys consider strength, boldness and stability aptitudes on the first three places, whilst the schoolgirls' choice are strength, elasticity and will.

The boys from the sixth form rank strength, mobility and boldness on the first three places, the girls having the opinion that strength, will and mobility are requisite.

The ranking of these aptitudes is expressed by the seventh form boys and girls in terms of will, strength and mobility, and will, elasticity and boldness, respectively.

The boys from the eighth form classify mobility, will and elasticity on the first three places, whilst the girls consider strength, mobility and boldness.

Table 2

Pupils' answer the to the first question

Form		Motor and psychomotor qualities							Psychical aptitudes								
		Speed	Ability	Strength	Endurance	Elasticity	Mobility	Stability	Will	Self-confidencece	Boldness	Persever.	Imaginat.	Motivatio	Memory	Ambition	Attention	Concentr.
5th form	B	-	3	8	4	5	3	7	3	-	8	2	1	1	-	4	2	-
	G	1	2	12	7	9	6	2	8	1	7	-	1	-	6	5	4	3
6th form	B	2	7	10	5	4	8	1	6	-	7	-	-	-	3	4	2	-
	G	3	8	14	2	9	10	6	12	5	6	-	1	-	5	6	4	-
7th form	B	6	4	12	6	4	7	6	14	4	6	3	-	2	4	2	2	-
	G	4	2	9	5	12	10	7	15	6	11	4	2	2	6	2	1	1
8th form	B	6	3	7	7	8	12	5	10	3	4	3	-	2	3	5	2	2
	G	5	2	13	4	6	10	4	8	4	9	2	2	3	4	6	4	3

During the results' analysis and processing we have found a significant number of inadequate answers, e.g., "proper equipment" (questionnaire No. 17, sixth form boys), "I don't think qualities are requisite" (questionnaire No. 5, sixth form girls), " proper height" (questionnaire No. 17, seventh form boys, and questionnaires Nos.30 and 37, seventh form girls).

It should be mentioned that in each form there were two or three cases when pupils avoided the answer.

The second question is referring to the importance given by pupils to the acrobatic gymnastics.

In the fifth form boys (Table 3), out of 56 pupils, 52 think the activity carried out at the acrobatic gymnastics classes is important to them; three pupils avoid the answer and a pupil disregard this activity. Among the reasons inducing an affirmative answer, ten pupils consider the acrobatic exercises a contributing factor to the body's harmonious development, eight pupils think they aid to motor aptitudes development, and six pupils state this activity maintains a good health condition.

In the fifth form girls, out of 60 pupils, 55 give an affirmative answer considering activity performed at the acrobatic gymnastics classes is important to them; three pupils give no answer, and two pupils deny its significance. Among the reasons inducing affirmative answers, the first three places are occupied by the acrobatic exercises contributing to the body's harmonious development (nine schoolgirls); eight schoolgirls think the acrobatic exercises "maintain the body's beauty and health", and five pupils state they " aid to the body's harmonious development". There are also other few answers, but significantly important, like " we become more elastic, that is a helpful property to life".

In the sixth form, 53 schoolboys give an affirmative answer, three of them give a negative one, and three do not respond to this question. Among the reasons inducing an affirmative answer, ten pupils think these exercises "develop the physical qualities", eight state "they contribute to the body's development", and five think "they help to a normal development".

60 schoolgirls in the sixth form give an affirmative answer, two respond negatively, two do not respond, and a schoolgirl state "she does not understand their helpful role". (Table 3)

Table 3

Answers given by pupils to the second question

Form		Affirmative answer		Negative answer		No answer		Total No. of subjects
		No. of subjects	%	No. of subjects	%	No. of subjects	%	
5th	B	52	92.85	1	1.78	3	5.74	56
	G	55	91.67	2	3.33	3	5.00	60
6th	B	53	89.83	3	5.08	3	5.08	59
	G	60	92.30	3	4.61	2	3.07	65
7th	B	45	86.54	4	7.69	3	5.76	52
	G	47	90.38	4	7.69	1	1.92	52
8th	B	36	78.26	6	13.04	4	8.69	46
	G	43	86.00	4	8.00	3	6.00	50

The answers given by the seventh form schoolboys are as follows: 45 boys give an affirmative answer; four respond negatively; three do not respond. Among the affirmative answers, nine refer to the contribution of the acrobatic gymnastics "to help the body's harmonious development", seven state "they aid to the muscular development", and five refer to " their help in practicing other sports". It should be mentioned that five schoolboys list unconvincing reasons.

In the seventh form schoolgirls, out of 52 pupils, 47 give an affirmative answer, four answer negatively, and a girl is irresolute about the matter. However, there are many varied reasons inducing these answers, fact that prove interest and preoccupation in the majority of the subjects undergoing the questionnaire. We point out some answers considered by us to be more elevated and interesting to this research study: " in the future, we well need some of exercises acquired at the acrobatic gymnastics", or " the acquired skills prepare us for life", or " they help to

life's balance maintenance", or " the acrobatic gymnastics is important to health condition and ensures the body's harmonious development".

The answers given by the eight form boys are as follows: 36 pupils give an affirmative answer, five pupils a negative one, four give no answer, and one pupil is confused in his response. Among those giving affirmative answers, six pupils consider the physical exercises contribute to boldness and ambition development, five pupils state " they substantially help to muscular fiber strengthening ", and four think "the physical exercises contribute to the motor and psychical qualities development".

The following are the results obtained in the eight form schoolgirls: 43 subjects respond affirmatively, four respond negatively, and three give no answer. Among the affirmative results, those given by ten girls refer to the contribution of physical exercises to boldness, will and ambition development; seven girls think they are helpful to muscular tonus strengthening. From the broad scale of the answers in various questionnaires fill in by the eight form schoolgirls we selected the most significant one: " the acrobatic exercises are important because they help to the muscular fibers and motor and psychical qualities development".

Conclusion

The subjects' answers to the first question reveal that 17 qualities are required by the acrobatic exercises acquirement;

These qualities can be classified as motor and psychomotor aptitudes (7 subjects), and psychical qualities (10 subjects);

Generally, on the first four places are situated strength, mobility, will and boldness;

The majority of the 5^{th}-8^{th} form pupils consider the activity performed at the acrobatic gymnastics classes is important (question No. 2). The percentage of positive answers is between 92.85% and 78.26% (Table 3).

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A MARKETING STRATEGY FOR PROMOTING TAEKWONDO

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REZUMAT. Promovarea Taekwondo-ului printr-un plan de marketing. Printr-o analiză atentă a mişcarii sportive la nivel mondial vom observa tendinţa acestuia de a trece din sfera „sportului ca activitate ludică" înspre sfera pragmaticului, a „afacerii". În contextul accepţiunii mişcării sportive ca un produs care trebuie vândut, deci promovat cât mai bine pentru a fi cumpărat, şi de aici toate consecinţele faste şi/sau nefaste ale acestui proces, lucrarea de faţă încearcă să descrie modul în care s-au desfăşurat lucrurile în Taekwondo până acum (formă de organizare şi regulament competiţional) şi care sunt tendinţele viitoare (strategie de transformare propusă de WTF), pentru ca în final acest „produs" Taekwondo să fie cunoscut, agreat si „cumpărat".

We are living in a world ruled by market economy. If market economy dominates this world, then what dominates market economy is advertising.

After a close analysis of sports at world level we notice a transition from sports as a game towards sports as a business, towards something to earn money with. And, because advertising is, as already stated earlier, primary to market economy, we will discuss the aspect of 'advertising sports'.

In this context, of regarding sports as a *product* which has to be sold and thus promoted at its best in order to be bought – from where all the benefic and/or not benefic consequences of this economical process – in the following I will try to describe the organization at date and set of rules for competitions in Taekwondo. Then I will talk about the changes promoted by the WTF so that the product Taekwondo is better known, appreciated and finally "bought".

In order to best describe the evolution of this martial art I will make use of some historical data.

Most of those who have dealt with the chronology of martial arts' practice set their starting point at the beginning of the 6th century, place them in a Shaolin temple in southern China and name as their initiator the Buddhist monk Bodhidarma.

Taekwondo is attested much later by archeological proves dating from the year 37 BC. The evolution of Taekwondo from a defensive fighting form to a martial art – Taekwondo as a sport – was also influenced by the designations it had before 1961: Subak, Takkyon and Taekkyon. On September 16th 1961 the Korean Taekwondo Association is established and by this also the name of this martial art – Taekwondo. It has achieved a meteoric rise since its debut in the international sports community some 32 years ago – with the first world championship on May 28th

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1973 in Seul, Korea – transforming itself from a traditional Korean martial art into an Olympic sport. Nonetheless, it is understandable that its rapid development in such a short period of time has brought about some unforeseen problems, some of which I will present/describe furtheron.

One of the problematic areas is the refereeing system, which allowes too much subjectivity in judging at competitions. Another problem relates to the safety and virtuosity of the athletes and their knowledge about doping and doping control and their lack of opportunities to directly influence policy-making bodies. Thirdly there is a need for better exchange between national and international members of the Taekwondo family across the world and also for an image lift of this sport as being balanced and impartial in the management of competitions, while being accountable and open in all affairs, including financial management. At the moment there is no efficient marketing strategy to make Taekwondo more popular all over the world. If higher popularity could be achieved, the WTF thinks that Taekwondo could be used as an educational tool and as a promoter of solidarity between the countries which have committed to this sport. Furthermore the WTF sees the necessity for reinforcing the status of Taekwondo as an Olympic sport and for a greater contribution to the promotion of the Olympic Movement in general.

The WTF as the supreme governing body of the sport of Taekwondo acomplishes its role through the following important activities:

- To serve the Regional Unions and National Member Associations in an efficient and professional manner
- To organize and sanction top-notch international competitions such as theWTF World Taekwondo Championships, the WTF World Junior Taekwondo Championships, the WTF World Cup Taekwondo Team Championships, the WTF World University Taekwondo Championships, and the WTF World Poomsae Championships
- To establish fruitful cooperation with the International Olympic Committee, National Olympic Committees and the Organizing Committees of the Olympic Games and Championships for the successful presentation of Taekwondo competitions
- To conduct innovative research and development to improve the safety of athletes and boost the dynamism of Taekwondo
- To establish and maintain close relations with the IOC, ASOIF, ANOC, OCA, ODEPA, ANOCA, FISU, CISM and other international sports organizations

In order to solve the problems presented above the WTF suggests a marketing strategy with the following goals:

- To make the sport of Taekwondo more attractive and popular by:
  - Enhancing the dynamism of Taekwondo competitions to entertain spectators and attract TV viewers
  - Garnering positive publicity through the enhancement of PR activities for Taekwondo and the WTF
- To develop fair competitions through an objective and clear refereeing and judging system

- To enhance stringent doping control
- To strengthen Development & Solidarity between the WTF, Regional Unions and Member National Associations by:
  - Enhancing financial support to the Regional Unions and MNAs
  - Strengthening Development & Solidarity Programs, especially to less affluent member nations
  - Upgrading communication networks among all parties
- To enhance financial stability through:
  - Promotion of marketing activities
  - Efficiency and transparency in the management of finances
- To internationalize and enhance the operations of the headquarters
- To improve and streamline the organizational structure of the WTF
- To promote Taekwondo globally
- To better manage membership administration and services
- To develop more efficient competition management
- To enhance the level of ethics and sportsmanship

The WTF places the following core values at the basis of achieving its goals:

- High standards in terms of efficiency and effectiveness
- Responsiveness
- Accountability
- Authority

The WTF program and activities for achieving the goals

[Goal #1]: To make the sport of Taekwondo more attractive and popular

A. To make Taekwondo more attractive to spectators and TV viewers

- Shrink the competition area from 12-by-12 to 10-by-10 meters and eliminate the Attention Line
- Reduce the length of men's competition from 3 rounds of 3 minutes with 1 minute of rest between rounds to 3 rounds of 2 minutes each, with 1 minute of rest
- Consider colored uniforms in principle. Form a special subcommittee to research color and design issues, pant-leg control, possibility of transparent and lighter headgear, changes to women's uniform design
- Referees shall issue on-the-spot warnings to contestants for penalties, who shall continue the contest from the point where they were stopped

B. Enhance PR (puclic relations) activities for Taekwondo and WTF

- Launch of a new PR program
- Obtain professional assistance for PR/Marketing. The first team of professionals hired should be based on priority, possibly by region depending on what is needed
- Decide whether to employ a PR firm or a staff member; either way, the person(s) should be sensitive to and respectful of Taekwondo's culture and values

- Decide whether to increase the frequency of the official WTF magazine
- Study the possibility of producing some form of online version of the magazine
- Study the possibility of producing live "Web" broadcasts of Taekwondo matches
- Establish an athlete ranking system as part of overall PR efforts; it also serves as a benchmark during the Olympic Games
- Other issues to be reviewed and evaluated
  - Introducing more demonstration matches
  - Introducing a road show
  - Introducing media roundtables
  - Introducing journalist site tours to Taekwondo-related sites
  - Organizing awards and honors for journalists who produce outstanding work about Taekwondo
  - Developing charity programs, such as educational lessons for the underprivileged
  - Prioritizing target audiences for PR work
  - Finding ways to cultivate greater support from Regional Unions and member NAs for PR activity

[Goal #2]: To develop fair competitions through objective and clear judging system

- A new Referee Board of Selection shall be formed to choose and assign referees for a specific event. It shall be composed of two WTF Executive Council members, the chairman of the Referee Committee, and the supervisor in charge of referees at the WTF Headquarters
- More stringent referee education programs shall be put in place, in light of all the reform changes taking place
- Training for referees shall be distributed across more regions of the worldthan is currently in place. The WTF Technical Committee shall take the lead in carrying out this matter
- Five video cameras shall be set up around the competition area of all WTF-sanctioned events, of which one should be positioned directly above the competition area. The review of videotapes will be part of the referee evaluation program (see below)
- Develop a stronger referee-peer evaluation system

[Goal #3]: To enhance doping control

- Achieve best practices in all doping-related activities as soon as possible in full compliance with WADA and IOC policies, so as to convey to the world and the international sporting community that the WTF is very strict and tough on doping practices
- Lay out a strategic plan for achieving best practices, to show that the WTF has a clear, long-term commitment to achieving these standards

- Re-activate the now inactive WTF Medical Committee
- Carry out research on such issues as doping use within the Taekwondo community, and consult with other IFs

[Goal #4]: To strengthen Solidarity between WTF, Regional Unions and Member National Associations

A. To enhance financial support to the Regional Unions and member National Associations

B. To strengthen Solidarity Programs

C. To upgrade networks for better communication

[Goal #5]: Enhance Financial Stability

A. To promote marketing activities

B. To enhance efficiency and transparency in finance management

[Goal #6]: Globalization of Administratio

- Take steps to bring greater national and gender diversity to the composition of headquarter staffs than is currently in place
- Review the organizational structure of the Secretariat and revamp it so as to better meet management demand
- Develop a system that supports and promotes career development for all WTF staff members
- Adopt a contract system, higher recruiting standards, and a performance evaluation system for WTF Headquarters staff

[Goal #7]: Improvement of Organizational Structure

- Prepare amendment proposal of the WTF Rules and Regulations, such that on the Executive Council there shall be two athletes, one male and one female, and at least one representative from each of the Regional Unions
- Prepare amendment proposal to establish " WTF Executive Committee" and submit it to the Executive Council and General Assembly

[Goal #8]: Enhance Promotion of Taekwondo

- Develop regional training centers in certain countries in conjunction with the Kukkiwon
- Emphasize "efforts to contribute to social and economic progress in developing countries"
- Encourage the NAs to develop more opportunities for youth, as well as greater gender equality, in their countries
- Provide communication devices such as phones, fax machines, photo-copiers, cellular phones, and computers to developing countries' NAs
- Make efforts to maintain a stronger position within international (UN, IOC), national (universities, ministries, sports institutions) and local (community-based NGOs, schools) networks

[Goal #9]: Develop membership management

- Create two or three membership fee levels to promote enlistment of members. Categories of membership tiers will be based on the member NAs' management abilities and growth potential
- Regardless of which membership tier a member NA belongs to, it shall have one vote in the General Assembly
- Develop guidelines for NAs to assist them in preparing an annual report

[Goals #10]: Develop competition management

- Develop specific bidding guidelines for Host Cities
- Develop manuals and guidelines on competition management
- Set up different tiers of guidelines for different kinds of competitions
- Develop Host City Contracts with each Host City prior to competitions. The contracts should include at a minimum the following conditions:
  - The rights and obligations of parties
  - Bank guarantees
  - WTF representation
  - Athletic facilities
  - Accommodations for athletes and WTF personnel

[Goal #11]: Enhance level of ethics

- Set up an Ethics Committee to oversee all ethical issues within the WTF and the sport of Taekwondo
- Draft the Code of Ethics for approval by the Executive Council

Consequently this is the way Taekwondo can influence the sporting and social life in all its aspects. The program suggested by the WTF and presented above is an attempt to apply a more aggressive management strategy in order for Taekwondo as a sport and as such as a social phenomenon and as a „product" and as such as an economical phenomenon to have the desired impact on the „consumer". It is impossible to oversee the fact that the modern world imposes changes on the different international sports' branches which have to attract consumers and thus funds to survive. Could this be another interpretation of the well-known slogan „citius, altius, fortius"?

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THE HEALTH RISKS OF OBESITY

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REZUMAT. Riscurile obezității asupra sănătății. Obezitatea reprezintă o stare metabolică periculoasă pentru starea de sănătate, datorită numeroaselor riscuri pe care le implică (risc cardiovascular, diabet, zaharat, accidente vasculare cerebrale). Obezitatea nu este întotdeauna cauzată de o dietă hipercalorică, în apariția ei intervenind și factori genetici, psihologici (depresie, stress), precum și cei legați de comportamentul individului (dacă efectuează sau nu o activitate fizică). În acest articol am încercat să comparăm numărul și volumul celulelor adipoase la indivizii normali, la cei obezi, la cei care au slăbit în greutate, precum și la cei care au câștigat în greutate.

Obesity is frequently a long-term process

Obesity often begins in childhood. When this occurs, the chances for adult obesity are three times greater compared to children of normal body mass. Simply stated, a child generally does not "grow out of" an obesity problem. When body weight is "tracked" through generations, the data indicate that the obese parent is likely to give birth to an overweight child who will grow into an obese adult whose offspring are likely to become obese.

Excessive fatness develops slowly during adulthood with ages 25 to 44 being the years of greatest fat accretion. In one longitudinal study, the fat content of 27 adult men increased an average of 6.5 kg over a 12-year period- from ages 32 to 44. This was equal to the group's total I weight gain over the duration of the study. Women are the biggest weight gainers with about 14% putting on more than 3.6 kg between the ages 0£25 and 34. The extent to which this "creeping obesity' during adulthood reflects a normal biologic pattern is unknown.

Etiology

If obesity were truly a unitary disorder, and gluttony and overindulgence were the only factors associated with an increase in body fat, the easiest way to reduce permanently would surely be to cut back on food. Obviously, other influences are operating such as genetic, environmental, social, and perhaps racial. Research also suggests specific factors may predispose a person to excessive weight gain. These include: eating patterns, eating environment, food packaging, body image, biochemical differences related to resting metabolic rare. dietary-induced thermogenesis, level of spontaneous activity or "fidgeting", and basal body temperature, levels of cellular

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adenosine triphosphatase, lipoprotein lipase and other enzymes, the metabolically active brown adipose tissue, and the level of dally physical activity.

It is difficult to partition the causes of obesity into distinct categories because they probably overlap. It seems fairly certain that the treatment procedures devised so far - whether diets, surgery, drugs, psychological methods, or exercise, either alone or in combination - have not been particularly successful in solving the problem on a long-term basis. There is optimism, nonetheless, that as researchers continue to investigate the many facets of obesity and its treatment, significant progress will be made to conquer this major health problem.

Factors that may lower the risk of onset of obesity

Observations of older men and women who maintain an active lifestyle suggest that the pattern of fat gain in adulthood can be significantly attenuated. *In fact, increases in body fat may be more a function of activity level than of age.* For both young and middle-aged men who exercised regularly, the time spent in activity was inversely related to their body fat level. Surprisingly, no relationship emerged between body fat and caloric intake. This suggested that the greater body fat among the active middle-aged men compared to their younger counterparts was the consequence of less-vigorous training and not greater food intake.

Health risks of obesity

Although it has been argued that a moderate excess in body fat is not in itself harmful, a 1985 report of a 14-member panel convened at the National Institutes of Health concluded that obesity should be viewed as a disease. This is because there are multiple biologic hazards at surprisingly low levels of excess fat, representing only about 2 to 5 kg above desirable body mass. In fact, it is now argued rather convincingly that obesity is a powerful heart disease risk that may be equal to that of smoking, elevated blood lipids, and hypertension.

It is well established that chronic disease is more prevalent among obese people than in individuals with normal body fat. While it is not clear to what degree obesity causes a specific medical problem, the increased risk of medical and health complications includes the following hypertension and stroke, renal disease, gallbladder disease, diabetes mellitus, pulmonary diseases, problems with anesthesia during surgery, osteoarthritis and gout, breast and endometrial cancer, abnormal plasma lipids and lipoproteins, impaired cardiac function, menstrual irregularities and toxemia in pregnancy, psychological trauma, flat feet and intertriginous dermatitis (infection in fatfolds), organ compression by adipose tissue, and impaired heat tolerance.

The level of body fatness: several criteria have been used to establish a person's level of body fatness.

The percentage of body fat

The line of demarcation between normal body fat levels and obesity is somewhat arbitrary. In the previous chapter we suggest that the normal range of body fat in adult men and women encompasses at least plus or minus one unit of variation from the average population value. That variation unit is approximately 5% body fat

for men and women between the ages of 17 and 50 years. Within this statistical boundary, overfatness would correspond to any value for percent body fat that exceeds the average value for age and gender, plus 5 percentage points. For young men, whose fat mass averages 15%, the borderline for obesity is 20% body fat. For older men, average percent fat is approximately 25%. Consequently, overfatness for this group would be a body fat content in excess of 30%. For young women, obesity corresponds to a body fat content above 30%, while for older women, borderline obesity would be about 37% body fat. It should be emphasized, however, that although the average population value for percent body fat increases with age, this does not necessarily mean that men and women should be expected to get fatter as they grow older. To *the contrary, the criterion for over fatness should probably be that established for younger men and women: above* 20% *for men and above* 30% *for women.*

There is also a gradation of obesity that progresses from the upper limit of normal - 20% for men and *30%* for women - to as high as 50 to 70% of body mass in the excessively obese. Common terms for the gradations in obesity include "pleasantly plump" for those just above the cutoff, to moderately obese, excessively obese, and massively obese. The last category includes people who weigh in the range of 170 to 275 kg and whose fat content is above 55% of body mass. In this situation, body fat often exceeds lean body mass and obesity may be a life-threatening condition. According to the standards of overfatness, men are above 20% and women are above 30%.

The patterning of fat

Adipose cells display remarkable diversity depending upon where they are concentrated. Some cells are highly efficient at taking up excess nutrient calories from the bloodstream, while others readily release their stored energy for use by other tissues. This helps to explain why certain fat deposits are so difficult to reduce. It is also apparent that the *patterning* of adipose tissue distribution, independent of total body fat, alters the health risk of obesity. For example, w*aist-to-hip ratios that exceed* 0.80 *for women and 0.95 for men are associated with an increased risk of death from coronary artery disease as well as a variety of illnesses, most notably diabetes, elevated triglycerides, hypertension, and general overall mortality.* This may be because excess fat in the abdominal area *(central* or android-type obesity, most prevalent in males) is more active metabolically, and thus more active in processes related to heart disease, than fat located in the hips and thighs *(peripheral* or gynoid-type obesity, most prevalent in females).

To some extent, a person's pattern of fat distribution is inherited and is probably governed by the regional activity of *lipoprotein lipase,* or LPL, the rate-limiting enzyme for triglyceride uptake by the fat cell. LPL is the important enzyme that facilitates the processing and storage of fat molecules by the *adipocytes* (fat cells). Variations in the activity level of this enzyme probably account for the differences in fat distribution among people, or the changes in a person's fat distribution that occur in pregnancy and middle age.

The number and size of fat cells

The size and number of fat cells have also been proposed as a means to identify and study what is normal and abnormal with regard to body fatness. The body increases its quantity of adipose tissue in two ways:

- By enlarging or filling existing fat cells with more fat; this is referred to as *fat cell hypertrophy*
- By increasing the total number of fat cells, or *fat cell hyperplasia*.

The technique for assessing fat cell size and number involves sucking small fragments of subcutaneous tissue, usually from the upper back, buttocks, abdomen, and back of the upper arm, into a syringe through a needle inserted directly into a fat depot. The sample of adipose tissue is then treated chemically so that the fat cells can be separated and counted.

Once the number of cells is determined for a known mass of fat tissue, the average quantity of fat per cell is determined by dividing the amount of fat in the sample by the total number of cells it contains. If the body's total fat mass is known, a reasonable estimate can be made of the total number of fat cells in the body.

The number and size of fat cells in normal and obese adults

There is a strong association between total fat mass in the obese and the number of fat cells.

The person with the lowest fat content has the fewest number of fat cells, while the fattest subject has considerably more cells. On the other hand, there is little relationship between total body fat in the obese and the average size of fat cells. This suggests that there may be some biologic upper limit to how large fat cells can become. After this size is reached, cell number probably becomes the key factor determining the extent of obesity. Even if the size of normal fat cells could double, this would not account for the tremendous difference in the fat content of obese and nonobese people. The excessive mass of adipose tissue in obesity, therefore, must occur by fat cell hyperplasia. As a frame of reference, an average non obese person has about 25 to 30 billion fat cells. For the moderately obese this number is between 60 and 100 billion, while for the massively obese the fat cell number may be as high as 300 billion or more!

The number and size of fat cell after weight loss

If a weight reduction program achieves normal body mass and fatness, then the individual fat cells will shrink and actually become smaller than those of people who have never been obese.

In this study, 19 obese subjects who initially weighed 149 kg reduced body mass by 45.8 kg, weighing 103 kg at the end of the first part of the experiment. Prior to weight reduction the number of fat cells averaged 75 billion. This number remained essentially unchanged with weight reduction. The average size of the fat cells, on the other hand, was reduced 33% from 0.9 to a normal value of 0.6 kg of fat per cell. When they lost 28 kg more, the subjects attained a normal body mass. Cell number again remained unchanged, while cell size continued to shrink to about one third the

size of the fat cells in normal, nonobese subjects. Other experiments have confirmed these findings in both adults and young children.

The formerly obese person who reduces body mass and body fat to average values still is not "cured" of obesity, (in terms of the number of fat cells). Clinical evidence reveals that such formerly obese individuals have extreme difficulty maintaining their new body size. It is tempting to suggest that the large number of relatively small fat cells in the reduced obese is somehow related to appetite control, causing the person to crave food, overeat, and regain the lost weight. Some nutritionists linked the repetitive yoyo-like cycle of weight loss and weight gain often noted among the obese to the "plight of the starving fat cells."

There appear to be 3 general periods when the number of fat cells increases significantly: the last trimester of pregnancy, the first year of life, and the adolescent growth spurt. It is during adulthood that the total number of fat cells probably cannot be altered significantly; an exception is in extreme adult obesity, when further cell proliferation can occur. There are still no data to indicate clearly if the final number of adult fat cells in humans can be modified through some form of intervention early in life. Remains a question "Can fat cell number be altered before adulthood, or is overfatness predetermined primarily by the genetic code?"

The number and size of fat cell after weight gain

In a series of studies with a group of nonobese subjects who had no previous personal or family history of obesity, body mass increased an average of 16.4 kg from voluntary overeating. When the size and number of fat cells were compared before and after the four month period of weight gain, the average size of the fat cells had increased substantially with *no change* in cell number. When the subjects reduced to their normal weight through caloric restriction, body fat was decreased and the adipocytes returned to their original size. These results indicate that the acquisition of fat by overeating in adults occurs primarily by filling existing adipocytes with more lipids rather than by increasing the number of new fat cells.

New Fat Cells May Also Develop

There is also evidence that in adult onset moderate to massive obesity, in which an already fat adult becomes even fatter, new adipocytes may develop in addition to the hypertrophy of existing cells. This is because fat cells have an upper size limit of about 1.0 kg of lipid per cell. In the massively obese (60% body fat; about 170% of normal weight), almost all fat cells have attained their hypertrophic limit and more cells may be recruited from the preadipocyte pool to increase cell number.

Conclusions

1. Obesity is a complex disorder related to numerous factors that tip energy balance in the direction of weight gain. What is becoming increasingly clear, however, is that a reduced level of energy expenditure through physical inactivity plays a significant contributory role.

2. There is numerous health risks associated with surprisingly low levels of excess body fat. These include an increased risk for hypertension, coronary heart disease, diabetes, renal disease, abnormal blood lipids, gallbladder and pulmonary disease, and various forms of cancer.

3. Obesity is usually defined in terms of excessive quantities of body fat. There is probably no biologic reason for men and women to get fatter as they grow older. Therefore, the standards for overfatness for adult men and women should be those established for younger adults, namely, above 20% body fat for men and above 30% for women.

4. The location of adipose tissue should also be considered; fat distributed in the abdominal region (android-type obesity) poses a greater health risk compared to fat deposited at the thigh and buttocks (gynoid-type obesity).

5 Another classification for obesity is based on the size and number of fat cells. Before adulthood, body fat increases in two ways: by enlargement of individual fat cells, termed fat cell hypertrophy, and by an increase in the total number of fat cells, termed fat cell hyperplasia. Fat cells probably reach some biologic upper limit in size, so that cell number becomes the key factor determining the extent of obesity.

6. The number of fat cells becomes stable sometime before adulthood; any weight gain or loss thereafter is usually related to a change in the size of the individual cells. In extreme cases, fat cell number may increase in adults once the hypertrophic limit is reached for cell size.

7. Increases in the number of fat cells appear to involve three critical periods: the last trimester of pregnancy, the first year of life, and the adolescent growth spurt prior to adulthood.

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MAXIMAL EFFORT – DYNAMIC FORCE – PERFORMANCE THEIR CORRELATION IN THE TRAINING ECONOMY

BOGDAN VASILE[1]

REZUMAT. Efort maximal - Forță dinamică – Performanță. Corelarea lor în economia antrenamentului. Studiul de față încearcă o abordare pluridisciplinară a problematicii ridicate de obținerea marii performanțe sportive. În ultimele decenii obținerea performanțelor sportive superioare au devenit aducătoare a unor avantaje materiale semnificative. Din aceste motive toți cei implicați în activitatea sportivă au căutat modalități concrete prin care să aducă îmbunătățiri procesului de antrenament. Acest lucru a putut fi realizat prin implementarea rezultatelor obținute în urma unor cercetări din diferite domenii științifice. Printre aceste domenii științifice care și-au pus amprenta concret pe perfecționarea procesului de antrenament dar și pe valoarea performanțelor sportive se numără și genetica musculară și neuro-fiziologia activității musculare. Conform celor afirmate mai sus, în studiul de față încercăm să prezentăm o abordare personală a modalităților prin care putem folosi cercetările din aceste domenii științifice în planificarea pregătirii sportive.

Motivation for the title

Even an expert in the field of sport's terminology would have reticence in exactly defining the perspectives given by this title. We are aware of the fact that the hereby paper will generate comments, but over the years, there have been many attempts, that were firstly contested, only to eventually be adopted, completed and improved, proving themselves to be real milestones for the theorization of the athletic phenomenon.

The continuous escalation of the superior athletic limits witnessed an important impulse over the last decades.

From the multitude of factors that contributed to the increase of the athletic performances we underline two of them:

1. the prestige and the scope of some athletic events, such as: the Olympic Games, World Championships, Grand Prix, made that the participation and the top places winning, bring important material benefits, both for the competitors and for the organizers.
2. the athletic performance activity has become an indispensable preoccupation of the modern society, which led to the development of the athletic phenomenon, thus the creation and the formation of a new theoretical discipline was born: the science of sport.

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This new discipline has developed its theoretic foundation by a complex pluridisciplinary & interdisciplinary approach, which led to the defining of the theoretic and scientific basis of the athletic phenomenon. (Bogdan V., 2004, 12-13)

Hypothesis of the present study

The present study advances a new approach concerning the perfecting of the athletic results, following a different periodicity of the athletic performance training due to the last researches in the field.

The researches having as the objects the muscular genetics, the muscular contraction, and last but not least a new arrangement and succession of the means of weekly preparation emphasize some original aspects.

For example:

- Last researches from the area of muscular human genetics, advanced a series of hypotheses that emphasize modifications in the functioning of certain muscular fiber types as a result of some special muscular efforts for the force development, following a certain order. The conclusions we have reached give the trainers a series of opportunities both for the perfection of the training process, as well for the improvement of the athletic performances.
- Efficient muscular contraction is achieved only in specific physiological and biochemical conditions. We cannot overlook the internal processes of the muscular contractions such as: the theory of sliding filaments during the contraction, the equilibrium and the contribution of the Ca_2^+ions, the one that at the sarcoplasm, represents both the safe lock (which in the absence of the Ca_2^+ions prevents the muscular contraction) and the key that opens the lock, initiating the muscular contraction. We do not intent to go deep in this topic over passing the internal neurophysiological processes and of the biomechanical mechanisms of the muscular contraction. (Oltean A., Lupu V., Miu A. 2001, 36)
- The physical efforts made at the maximum dynamic force parameters (explosive) – absolutely necessary for the obtaining of athletic performance – can only be achieved in certain specific conditions as a result of a preestablished succession of approach of the biomotrics qualities perfection in certain different phases of the athletic training annual plan.
- Following these specifications, the planning and the periodization training must take into account these two orientations. Therefore the selection and the implementation of a certain succession and exercises' order, becomes an essential preoccupation in the training program creation.

The implementation of these new objectives in the training plan, is connected to the following questions:

- What determines the order of these exercises?
- Which are the favorable muscular parameters to the type of training?
- How we achieve the transfer from brute work (of accumulation in the preparation period) to the activity of perfecting of the physical parameters (from the competition period)

Study thoroughness

Muscular Genetics[2]

The human muscular system represents one of the most adaptable structures that form the human body.

Therefore, both in movement and in rest, this suffers modifications. Following some intensive force training sessions, the diameter of the muscular fiber grows up to 2-3 times, but at the same time, after a space journey, the same muscular fibers may lose up to 20% of their thickness.

The muscular system functioning is based on the muscular fiber types that compose it.

Nowadays multiple classifications of the muscular fibers are known:

- Letzelter Stefan and Eggers Ralf,(2000, 17) advance a more complex classification (five types of muscular fibers), which basically includes the same approaches.

- Jesper i., Andersen - Peter Schjeling - Bengt Saltin,(2000) give the following classification:

Type I – slow muscular fiber

Type II – II a and II x, also known as fast muscular fiber[3]

The size of the contraction speed between the fast and slow fibers, can reach up to ten times differences.

The contraction speed of the muscular fibers of the IIa type are placed somewhere between the size of the contraction speed of the type I (slow) muscular fibers and those of the type II x (fast), so these fibers (IIa) are also known as intermediate muscular fibers (hybrid).

These so called hybrid fibers may have the same characteristics, but one of them plays o dominant role.

It is considered that these hybrid fibers are the ones that play an important role in the experiment presented in the hereby study.

Following some experiments and studies over the decades the Swedish researchers have advanced a series of hypotheses, the effect of which was the reorientation of some concepts of athletic training.

The researches that were based on the skeletal muscular activity had two directions:

- What are the exercises and the stimuli that trigger the muscular hypertrophy?
- How can the functions of some muscular fibers be temporary modified (after which exercises)?

The muscular hypertrophy (the diameter growth of the muscular fiber) produces, takes place after some complex biochemical reactions as a result of the

[2] Bogdan V., 2005, ***"Genetică musculară şi ameliorarea performanţelor atletice"*** . Materialul tradus şi preluat din revista „ATELIER", Ungaria, 2002., (pag. 16) interpretat şi adăugat de autor.

[3] Jesper I., Andersen - Peter Schjeling - Bengt Saltin, 2000

mechanical stress to which the muscular system is subdued after the trainings, and at the same time is conditioned by the genetic print of the individual.
It is *essential* that:

Following intense training of maximal force, at healthy and active individuals, the number of fast muscular fibers (II x) drops down. An important number of these muscular fibers transform (modify their properties) into type two muscular fibers, the contraction speed of which will place itself somewhere between the contraction speed of the type II x (fast) muscular fibers and those of the type one I (slow).

If these maximal force trainings continue with the same intensity, approximately after a month, the total number of the type II x (fast) muscular fibers will modify (modify their properties) into type II a muscular fibers, modifying themselves on account of their thickening.

The reducing of the trainings number, the eliminating of the maximal force exercises leads to the drop of the muscular hypertrophy followed by the return of quick fibers II x to the initial number, even more, their number increasing two times for the immediate period of approximately two months.

These modifications should theoretically be followed by an important performances improvement.

After some guided trainings, the appeared modifications between the two types of muscular fibers IIx and IIa, in which one can temporarily overtake the properties of the other and vice versa, are a natural consequence of the trainings and the breaks that follow them.

The muscular contraction

With the thoroughness researches from the area of the neurophysiology and the biochemistry of the human muscular system activity, the preoccupations for the implementation of these researches for the perfection of the training process have become obvious.

Bompa T.(2002, Pg. 275), presents this approach as follows:

- "The muscular contraction includes both actin and myosin in a series of mechanical events named:

-*the theory of sliding filament during contraction*

Six actin filaments surround every single myosin filament. The myosin filaments contain cross bridges, minuscule extensions that direct themselves towards the actin filaments. The motor nerve impulse stimulates the fiber completely and determines chemical changes which allow the actin filaments to join the myosin bridges and the bridges move pulling the myosin filament allowing it to slide over the actin filament.

The sliding action determines the shortening of the muscle (contraction) producing force. When the stimulation ends, the actin and myosin filaments separate, the muscle returning to its previous length and the contraction ends.

The activity of the cross bridge explains why the generated muscular force depends on the initial length of the muscle prior to the contraction.

The optimum length for the muscular contraction is the length of the resting muscle (or a bit bigger), because all cross bridges may connect with the actin filaments allowing the achievement of the maximum tension.

- When the muscle length, prior to contraction, is significantly shorter than the resting length (the muscle is already partially contracted as a result of accumulated fatigue) the contractive force drops down.

In a contracted muscle (with a high tonus) the actin and myosin filaments overlap, leaving only a few bridges open for pulling the actin filaments. The fewer the cross bridges available, the lower the tension and force.

- When the muscle stretches over the resting size, (as a result of an induced relaxation by a prolonged rest) the force potential is once again small, because the actin filaments are too far from the cross bridge for the muscle to contract.

The muscle contraction force diminishes when the muscle length is either smaller or bigger then the resting muscle length.

Planning, phases of the athletic training

Weekly cycle

"The planning topic represents one of the most debated chapters of the theory and methods of athletic training. (Alexe N., 1993, 424)

In athletics, the annual training plan constitutes the basic unity of planning (Harre D.,1973, 236), the weekly cycle representing the component with which we operate in the establishing of the training program.

"The science of sport has catalogued the indicators (factors) by which the athletic performance may be improved at the same time providing us the means of action so that their effect would be predictable and always maximal. (Alexe N., 1992, 23).

The predictability necessity of the used means and of their maximization effects becomes essential in conceiving the training program. This necessity has required the implementation of the latest findings recorded in the scientific research activity of this domain. Genetics and muscular contraction researches resonated in the improvement of athletic performance

Phases of training

1. PREPARATION PHASE
2. INTERMEDIATE PHASE (PRECOMPETITIONAL PHASE)
3. SPECIFIC PHASE (COMPETITIONAL)

1. ***PREPARATION PHASE (LOADING)*** 10-12 weeks.

It is important in the preparation of the physical factor.

Objectives:

The development of the maximal force

The development of the general endurance

The increasing of the effort capacity

Content:

Wide force exercises a big number of repetitions;

Repeated runnings in increased volume;

Pre-technical exercises done with moderate intensities, high amplitude, difficult conditions;

Observations:

In this phase there is no place for dynamic exercises;

2. THE INTERMEDIATE PHASE (PRECOMPETITIONAL)

4-6 weeks

Equally predominate in training the physical and technical factors.

Objectives:

Passing from the maximal force to the explosive one;

The improvement of the speed parameters manifestation;

Specific endurance perfection according to the sport event;

The implementation of the pre-technical and technical exercises done in similar conditions to the competition;

Content:

Without maximal force we cannot develop explosive force!

Obtaining the manifestation of an explosive force required in speed runnings, jumping, or throwing, is produced in specific conditions.

The ample in force exercises are gradually replaced by dynamic, explosive exercises

Force trainings with a weight, charged with small weights, done against the clock

Pulling exercises, steps and slope running

Coordinative exercises with rhythm changes

Observations:

At this point it is indicated to use the explosive force exercises, trainings with speed improvement, over a period of 2-3 weeks.

3. ***SPECIFIC PHASE*** (***COMPETITIONAL***)

4-6 weeks

The physical factor predominates, with its maintaining at a high level of physical parameters.

Objectives:

Perfecting the technical act;

Reaching the maximal parameters of speed and explosive force;

Perfecting the specific endurance regarding a specific event;

Content:

Specific trainings:

pure speed with the speedy device;

Speed running 30” with 30” – 8-10 times;

Pliometric jumpings at maximum parameters;
Control trainings in competition conditions;

Observations:

Heavy Force trainings are eliminated;

At a monthly basis the checking of the calcium and magnesium equilibrium takes place;

Findings

- There is no doubt that the genetics and muscular contraction researches, as well as some differentiate approaches of the training planning must be taken into account. These approaches are the ones that guarantee, one way or another, the progress in any domain.
- During the intense force training period, the number of the fast muscular fibers drops down, so it is recommended to avoid dynamic exercises, as well as efforts that require such manifestations.
- After a period of 4-5 weeks, by eliminating the force trainings, and with longer rest breaks during the efforts, the number of fast fibers doubles for a period of time of approximately four to six weeks.
- It is necessary a new different modality of approach for the training lessons with speed improvement, or exercises that challenge the manifestation of the dynamic force (explosive). The approach of these training sessions, after some prolonged resting periods, or after intensive trainings (as is the case of more then two training sessions per day), will not give the expected performance, and the probability for some injuries increases.
- It proves the futile use of dynamic exercises, of explosive force, during the periods of extensive training as well as the use of the maximal force exercises during the competitional phase.
- It becomes absolutely essential the monthly control of the sanguine board during the precompetiotional and competitional period.
- If the sprinters wish to increase in their muscular structure, the percent of fast muscular fibers (type IIx), it is recommended that their trainings include the following strategy:
    - In the first part to use complex physical exercises (maximal force) so that the modification of these fast muscular fibers of type IIx, towards the type IIa take place.
    - By reducing the number of trainings, apart from the force trainings which are important for the development of the maximal force, the athlete has to wait until these muscular fibers (hypertrophied) return to their initial state, doubling their number.

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ARTICULATE STICK AND THE SLALOM TECHNIQUES

ŞTEFĂNESCU HOREA[1]

REZUMAT.Fanionul articulat şi modificările aduse în tehnica slalomului special. **E**voluția schiului alpin impusă de nevoia de a parcurge slalomul într-un ritm cât mai alert, pe drumul cel mai scurt cât mai aproape de fanionul interior al porții de concurs; dar şi de numărul relativ mare de accidente cauzate de fanioanele rigide tradiționale, au determinat specialiştii domeniului să caute şi să găsească o rezolvare. Acestă rezolvare constă în introducerea fanionului articulat..

World Cup Racers make many slalom and giant slalom turns with sizable initial steering angles. When the turns are not sharp, little initial steering angle may be seen. But when the turns get taught, initial steering angles of over 40 degrees are not uncommon. So how do you know what the initial steering angle should be for any given turns?

The way a skier judges the steering angle is similar to how an archer aims an arrow.

The skier's problem is similar to the archer's, and the world-class racer has developed his own version of it's solution. Before starting a turn, the racer knows where he wants it to end, and in what direction he wants to be going at the point.

The skier then initiates the turn by pivoting the ski until it is aligned with that arc at the point it intersects his current path.

From another point of view all skiers learn early on the importance of edging skills. Ask them how they edge their skis turn, and they shrug their shoulders. Ask them how they edge their skis and they crank their knees in. While ski flex, side cut and torsion are subtleties that go forever unappreciated by most skiers, sharp edges are something they all understand.

When it comes to controlling their edges, skiers concern themselves most with making their skis hold on hard snow. It is just an important, however, to make the skis slip predictably and to be able to change smoothly from one pair of edges to the other when starting turns in a parallel stance.

For the expert skiers, controlling the skis edge does more than keep it from slipping. Changing the critical edge angle can also change the radius of a turn in progress.

You intuition tells you that big edge angles make your skis hold: the bigger the better. It is easy to draw this conclusion. After all, the harder you crank your knees into the turn, the better your skis seems to grip.

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Putting the skis at the angle is the first key to making it hold. The second key is aligning your body so that you can keep the ski at the angle while you take care of other aspects of snow-ski interaction.

Have you ever thought about how are ice skate holds? Skates are not nearly as stiff and powerful as ski boots. The ice in any rink is as hard as the worst boiler-plate a skier is ever likely to see. Yet, the casual skater can describe clean on the rink, while good skiers often struggle to make good turns on snow that is not nearly as hard.

The difference lies in the relative occasion of the ankle and the weight bearing edge. The blade of an ice skate is directly under the centre of the skater's ankle, so when the skate is on the edge, the force that ice expects on the blade passes directly through the center of the skater's ankle.

In contrast, the edges of ski are offset from the center of the skier's ankle. Unless this torque is completely resisted by the ski boot and the ankle muscles, the skis critical edge ankle will drop if that ankle gets below 90 degrees, the ski will slip.

The second key to holding them is to make the ski more like a skate, to get the center of the ankle as close as possible to the line along which the force of the snow acts.

The closer the center of the skier's ankle is to the line along which the snow acts, the smaller will be the torque on the ankle, and the easier it will be for the skier to make the skis hold. This is why skis that are narrow under the foot hold better than wide ones. It is also why skis hold well in soft snow.

As the ski is driven further into the snow surface, the snow's reaction force moves closer to the center line of the ski, making the level arm shorter and the torque smaller.

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THE IMPORTANCE OF CORRECT LEARNING OF TREADING WATER BY CHILDREN AND JUNIOR III WATER POLO PLAYERS

BALOGA ISTVAN[1]

REZUMAT. Importanța învățării corecte a procedeului de călcare a apei la jucătorii de polo pe apă copii şi juniori III. In acest studiu se doreste sa se evidentieze importanta executarii corecte a procedeului de calcare a apei in jocul de polo. Tocmai din cauza executarii gresite al acestui procedeu tehnic mai ales la jucatorii de polo de varsta junioratului III si copii, si alte elemente tehnice bazate pe acesta vor avea de suferit. Astfel experimentul efectuat s-a orientat catre procesului de antrenament specific de polo pe apa la aceste categorii de varsta.

Treading water is an important skill in water polo, which is used by players to keep them afloat in a vertical position while performing other technical skills. For all technical skills effectuated in both offensive and defensive positional game as: block of ball, steal of ball, throw of ball or defending players with or without ball, water polo players should be able to perform a technically correct execution and have a good physical training of treading water. Obviously this desire is realized in a more accentuated form in case of goalkeepers.

It is considered that because of incorrect execution of this procedure other technical skills based on it will have to suffer. It is to be signaled that many young players that are already playing in senior teams as well are performing an incorrect eggbeater kick. Therefore it is necessary to observe the exclusive part of legs training for children's and junior III teams water polo practices and have corrected wrong execution of treading water.

Subjects

The experiments' subjects were constituted of children and junior III water polo players from the following teams: Clubul Sportiv Scolar „Viitorul" Cluj-Napoca, Clubul Sportiv Municipal Cluj-Napoca, and few young players from Clubului Sportiv Universitar „Politehnica" Cluj-Napoca senior team. In the experiment it was contended a number of 65 athletes, separated in different groups.

The subjects' age was: 11-12 years old players from children teams, 13-14 years old players from juniors III teams, and 16-17 years old young players that also play at the senior team as well.

The experiment's site and conditions

The experiment took place between February and November 2005, at "Complexul de Natatie al Universitatii Tehnice" from Cluj-Napoca. The research was carried on in normal conditions during training practices along the yearly preparation cycle.

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The treading water technique:

Body Position:

The body position is vertical from the head to the hips. The head is erect and above the surface of the water. The upper body is held in an erect sitting position with perfect posture: the neck extended, chin up, back flat, and shoulders in neutral position. The ears, shoulders and hips are in alignment and the head is held high (Berg 2004). The water line should be no higher than mid-shoulder when sculling and kicking, and just below the shoulders when performing above water arm movements in order to minimize the splashing.

Kicking Action:

Water polo players use an alternating rotating kick to maintain body height and position. The hips start in a position close to 80 degrees of flexion and 90 degrees of abduction, with close to 30 degrees of lateral rotation. The knee is flexed close to 15 degrees and laterally rotated at the start of the kick. During the kick, the hips and knees are extended, adducted and medially rotated to produce power in the stroke (Berg, 2004).

When one knee is flexed in recovery the other is extended during the drive phase. The hips are also moved from flexion and adduction during recovery to extension and abduction during the propulsive phase. At the beginning of the power phase, the knee is maximally flexed, the ankle is dorsiflexed and the foot is in eversion to attain the optimal pitch angle of the foot for the inward, forward motion of the foot. As the foot approaches the lowest position, the ankle is plantar flexed and the foot is moved into inversion to maintain the correct pitch angle relative to the flow.

The major force producing portion of the stroke occurs when the foot is brought down, forward and inward while the knee and hip are extending. The foot moves from a high position with the foot near the back of the thigh close to the buttocks to a low position with the knee extended and the foot almost directly below the hip. The foot also starts with a position with the foot behind the buttocks and ends in a position with the toes well in front of the trunk. The movements involved start from the position in which the hips are flexed 90 degrees or more and the hips are abducted 90 degrees as well; the hips are also medially rotated so the toes are pointed outwards and the foot is everted (Sanders, 1999).

When the power stroke is over, the hip has been extended, adducted and laterally rotated; while the knee has been extended, adducted and medially rotated; and the foot has moved from eversion to inversion. Recovery consists of hip flexion, medial rotation and abduction; and knee flexion and lateral rotation to place the leg back into the power position; along with ankle dorsiflexion and subtalar eversion to cock the foot for the power phase. The trunk is held erect and the arms are often out of the water to remove the effects of sculling on the eggbeater kick.

During subjects' treading water execution there were observed the following measurable variables:

Hip:

- Range of flexion-extension during the stroke; position of maximum flexion and position of maximum extension (from the side view).

- Range of adduction/abduction during the stroke; position from maximum abduction to maximum adduction (from the front view)

Knee:

- Range of flexion extension during the stroke; position of maximum flexion and maximum extension; also the vertical excursion of the knee, from maximum height to minimum height in the pool.
- Range of medial to lateral rotation of the knee; position of maximum medial and lateral rotation.

Ankle:

- Range of motion at the ankle; from maximum dorsiflexion to maximum plantarflexion.

Other variables:

- The circular movements of the foot during one complete cycle- look at shape of the circular pathway for each foot.
- Change in elevation of the foot during the stroke, from maximum hip flexion/knee flexion to maximum knee extension/hip extension
- Distance subject drops into the water when arms are extended above the water- the legs only kick
- Time for one complete cycle of each leg: propulsive phase and recovery phase- how symmetrical is the kick?

All experience groups' subjects were explained and demonstrated the importance of correct execution of this technical skill. The practical demonstration was possible with executions as close as possible to the model by the senior "CSU Politehnica" water polo team experienced members. To create a correct image there were used intuitive materials like: kinograms, pictures, and videos representing technical skills under study.

At the beginning all performances were "measured" with a very big attention, pointing out only the positive aspects, while children were praised and evidentiated. Later, it was paid more attention over possible incorrect execution of the eggbeater kick. Furthermore there were observed self executions and other teammates' executions then errors were tried to be corrected. In the experience it was more emphasized the correct execution of the technical skill of treading water then the physical preparation of it.

Therefore the most important errors observed are listed below:

Common errors observed in treading water execution by children and junior water polo players:

- Not enough hip abduction so the power stroke into adduction is too short.
- Not enough flexion of the hip (should be past 90 degrees) so the hip extension range is limited.
- Not enough hip lateral rotation to bring the foot back to the hip line, so stroke is shortened.
- Not enough knee lateral rotation, dorsiflexion and eversion so the foot is not cocked at the correct angle to obtain lift-might are due just to the poor medial hip rotation.

- Too small range of motion in knee flexion and extension, so the vertical excursion of the foot is limited.
- Keeping the hips too flexed throughout the stroke; rather than forcefully extending during the power stroke.
- Not as much anterior posterior and lateral motion.
- Too much bouncing or lack of stability, where swimmers do not maintain a steady height and vertical posture.
- Many children and junior athletes lack symmetry in the kick, with a larger range of motion in the right leg than the left leg in many of the athletes examined.

During the experiment it was observed that less skilled young athletes will tend to have a smaller range of motion of the hips and knees and slower foot motion during the stroke. Less skilled children and junior water polo players also have less range of lateral rotation of the hip and knee. Therefore it is suggested that performance is maximized in players that scull with their feet with large horizontal components rather than pushing downward. Although pushing downward can generate force, much of this advantage would be lost when the foot is pushed upward to begin the next cycle.

The key to the good treading water is the horizontal motions of the foot and keeping the foot in a favorable orientation to the flow to produce lift. This is accomplished by appropriate movements of the hips, knees and ankles. More lift and greater force can be generated when the legs are moved sideways, downward and forward faster to produce additional force to keep the water polo player higher in the water.

It is also to be observed that water polo players often want to rise further out of the water using the eggbeater in the water polo shot. This additional height is attained by the use of trunk extension and rapid knee extension of each of the legs in rapid succession. This rapid knee extension allows the athlete to maintain higher foot speed and apply greater forces to the water.

It is to be notified that after this experiment, where children and junior water polo players were explained and demonstrated through different methods the correct execution of the technical skill of treading water had a positive outcome. Other technical skills based on the eggbeater kick like: blocking the ball, shooting the ball or even without ball-defensive individual skills were improved according to game statistics.

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SPORTSMEN'S GOOD SHAPE IN TENNIS

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REZUMAT. Forma sportiva in tenisul de camp actual. Forma sportiva este capacitatea superioara a sportivilor, este randamentul ,lor optim de a obtine performante de valoare la concursurile de importanta maximala intr-o anumita perioada. Forma sportiva este conditionata de mai multi factori care vor fi pe larg enumerati in lucrare. Durata formei sportive in tenis se poate mentine prin rodajul in concursuri mai multe luni de zile, cu pretentia manifestarii de varf de forma sportiva la concursurile de importanta maxima. Un aspect important il reprezinta refacerea organismului si recuperarea dupa efort. Efortul depus intr-un anume timp pretinde o recuperare fizica ce are toata durata efortului depus, in caz contrar apare uzura si oboseala cronica.

This work tries to bring arguments which sustain the idea that tennis game is one of the most complex sports and that it can be turned into a modus vivendi because it implies self discipline and self-education, makes people aware of the importance of having a healthy body and thus a healthy mind. All these can be reached through a deep knowing of human body, of its limits and capabilities of recovery. In other words human body can be seen as a mechanism which must be maintained at a level of greater readiness to face different situations which involve a sustained and great effort. In sportive terms this "readiness" can be seen as physical shape.

To be in a good physical shape refers to the sportsmen's superior capacity, their optimum effectiveness in getting high performances at different contests in a certain period of time.

Physical shape is conditioned by some factors:

- sportsmen's health;
- steady training;
- the events results;
- contests results;
- their commitment in training and competitions;
- self-confidence;
- logical approach of different sports and of sport in general;
- recovery capacity after a great effort;
- optimum resistance of effort.

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Good physical shape relies on the optimum efficiency which depends on:

- the sportsmen's age;
- number of years in practicing a certain sport;
- physical training;
- technical-didactic support.

Physical shape is a continuous process which starts from the initiation stage and continues up to maturity, from this stage on, the purpose is to maintain it as the years pass.

At the junior stage, physical shape has an evolutive character, focusing on the theoretical approach of training and on the efficiency of these studies.

In tennis good physical shape can be maintained at a certain level, by taking parts at many competitions for several months and by targeting high results in the most important ones.

Losing physical shape is a fast process while the process of achieving a good one is a very slowly and time-consuming process. Factors which may influence the losing of physical shape:

- the disobedience of the training methodology and methods;
- an inadequate life-style;
- health problems;
- the change of the environment;
- psychological factors (audience, opponents, " friends", etc).

At all these factors we may add others two - tiredness and over training- which may also influence negatively sportsman's physical and physical capabilities.

Graphically, physical shape can be seen as a line in progress during the period of trainings and competitions, which then has a steady evolution with high effectiveness in competitions and which finally descends towards the end of the competitional season. This gradual graphic representation shows a yearly increase in value between the age of 15 and 18.

Trainers estabilish their own periods of physical and methodological training taking into consideration the competitional agenda.

The pre-competitional periods of training include:

- competitions with high value opponents;
- "mercenary" tactics , meaning to participate in as many competitions as possible;
- a very good physical training;
- searching for tactical solutions.

To take notes and make observations after each is a very useful method of getting an overall view at the end of the year , and of estabilishing a new better tactic for the next year.

A very important aspect in tennis is the recovery period of the human body after a great and long period of effort. It is the starts point for a more intense period of effort. In tennis the next contest is more difficult than the previous one because it requires a greater capacity of effort , respectively, a longer period of recovery.

This idea has been sustained by some important professional tennis players.

"The amount of effort made in a certain period of time requires a period of recovery as long as the one in which the effort was made". Otherwise, chronical tiredness and body weakness may appear.

In tennis, body recovery after effort means:

- to get to the initial physical shape of the body;
- to have periods of rest and relaxation – of almost two or three hours- as soon as possible to be ready to face the next necessary effort.

Recovery means the slow or fast process of " rebuilding" the combat capabilities of the human body through the following methods:

- to take showers;
- to wear clean underwear;
- constantly change of shoes;
- to lay on the back keeping the feet above the head, in a total state of relaxation, away from the sun;
- to take a nap;
- a healthy diet and a correct sanitation:
  - no water during the meals
  - correct and slow chewing
  - no green vegetables before a match
  - a lot of water during the match because through perspiration, great amounts of it are lost; but the most important reason for drinking water is that it guarantees a kidney's well- functioning; mineral water is highly recommended due to its substances and mineral salts.

Between matches, the period of rest and relaxation is advisable to contain small talks, good disposition moments and moments of self-discovery.

In tennis, besides physical recovery, avoiding physical accidents like sprains and muscle stretch, is another important concern. Stretching practice is a good way to avoid accidents, including exercises which have a benefic effect upon the muscular insertions resulted in its lengthen and also a useful muscle recovery after effort. The great amount of effort required and implied in a tennis game resulted in a high level of tiredness. So the joints involved in the physical exercises eliminate the tiredness in a very short period of time , but the professional players never leave the base before tens of minutes of stretching practice.

In time, each player will get each own way of practicing the best exercises for his/ her own sportive activity; in other words he will end up by being able to create his/ her own physical exercises appropriate for the performed sportive activity.

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PRESENTATION OF THE PSYCHOLOGICAL FACTORS INVOLVED IN TRAINING THE SPORTSMEN

MUŞAT SIMONA[1], DIAMANTAKOS IOANNIS

REZUMAT. Factorii psihologici implicaţi în antrenamentul sportivilor. La nivelul psihologiei muncii şi organizaţionale foarte des întâlnim termeni precum optimizarea eficienţei profesionale, competenţa profesională, reuşita profesională. Termeni care, dacă vor fi uşor modificaţi, se întâlnesc şi în domeniul sportului: eficienţa sportivă, competenţa sportivă, performanţa sportivă. După părerea noastră este ceva de asteptat, fiindcă sportul contemporan practic reprezintă o industrie. Din punct de vedere organizaţional şi financiar, capitalurile care se investesc astăzi în sport depăsesc de multe ori bugetul unei intreprinderi. Dacă am continua comparaţia am depista şi mai multe puncte comune, cum ar fi: selecţia profesională (selecţia copiilor la nivel de juniori, transferuri la nivel de seniori), organizare de formare profesională (metode şi mijloace de pregătire), etc. In continuare, având ca scop o prezentare cât mai amplă a factorilor psihologi implicaţi în antrenamentul sportivilor vom apela şi la psihologia organizaţională.

In labour and organisation psychology, we often meet such terms as optimisation of professional efficiency, professional competency, and professional success.

If slightly changed, these terms are also used in the sport field: sport efficiency, sport competence, and sport performance. In ours opinion, this is to be accepted, as contemporary sports represent an industry. From an organisational and financial point of view, the capitals invested nowadays in sports surpass many times the budget of an enterprise.

If we continued the comparison, we would detect more common features, such as: professional selection (selecting children for juniors, level transfers between seniors), professional forming organisation (training methods and means), etc.

As follows, we will appeal to the organisation psychology, having as an aim, a complete presentation of the psychological factors involved in training sportsmen.

THE WAY THE PSYCHOLOGICAL FACTORS GET INVOLVED IN TRAINING THE SPORTSMEN

We think it is necessary to describe the way in which the psychological factors get involved in sport performance, as well as their way of interaction in training sportsmen. One should mention that the psychical abilities are determined by the nervous and endocrine substratum.

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The main nucleus (according to the factorial theory of abilities) is represented by the "g" general factor. Many sport psychologists as being the sportsman's general intelligence interpret this factor.

At present, we would like to underline Murphy's point of view (1996), connected to the theory of "g" factor, that asserts that: "none of the hierarchical models of abilities is so performant, as to be accepted as point of reference" (Pitariu, 2000). The explanation - conclusion in the problem of cognitive ability structure can be given by the following statement: "we know very few of the neural, physiological or biochemical bases or origins of cognitive abilities." (Pitariu, 2000).

The sport psychology presents us with the theoretical model of performance that includes biological, psychical, training and environmental factors.

In conclusion, the problem of cognitive abilities, according to sport psychology, is limited to the selection process. It is considered that sport performance abilities, should they be discovered during the selection process, will develop along the sport life, depending on training and coach's talent. But, how about the psychical abilities, such as the psycho-intellectual ones, for example? What is the proper methodology for forming and developing imagination, memory or co-ordination between perception and a physical action? Still, observing Krutetki's principles (1972) seams to be a first step by which, after a scientific approach of the problem, one could draw conclusions regarding the way the psychological factors involved in training sportsmen, are linked. These would be as such:

1. The activity should have a creative character (possible correlations with attitudes, affectiveness, anxiety, forming skills);
2. Should be oriented towards elements to be formed and towards developing the abilities (possible correlations with psychic skills, interests, general and specific features of personality);
3. The activity should have a strong positive motivation, offer the satisfaction of the success accomplished (possible correlations with motivation as specific attitude, anxiety, interpersonal relations, sport environment) (Pitariu, 2000).

CONCLUSIONS

There was noticed that sport performance supports the combined influence of internal and external factors, as compared to the sportsman's personality.

1. Internal factors:
   - Motivations, activity reasons, aspirations;
   - Abilities, attitudes.
2. External factors:
   - Organising training sessions;
   - Learning, consolidation, improvement methods;
   - Performance objectives;
   - Coach's personality.

(Niculescu, 1999)

During the learning steps, the sportsman values his abilities for a gradual forming of skills, improving and turning them to automatisations; a greater influence have now cognitive-intellectual factors (perceptions, representations, attention, thinking, intelligence). In the next step - supra-learning - a greater influence have non-cognitive factors in capitalising the potential of adapting to competitions.

Although the importance of personality non-cognitive factors is recognised in the field of sport psychology, their study meets methodological burdening. And the research of the interaction of non-cognitive with cognitive factors hasn't started yet (Niculescu, 1999).

Sport psychologies, as well as general psychology consider the connections between ability and personality factors, as very important. And this is so, as these interactions represent the central dimension of personality. The interaction attitudes - abilities is as important for performance sport, if we consider the direct report of the connection between attitudes and abilities, that requires the influence between attitudes focused on sports practised and on special abilities for the sports practised.

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CONSIDERING BOOT STIFFNESS – THE IMPORTANCE OF SKI BOOTS IN CARVING TECHNIQUES

ŞTEFĂNESCU HOREA[1]

REZUMAT. Impactul materialului modern de schi în tehnica actuală a probelor alpine – importanța bocancilor de schi în "tehnica virajului tăiat". Capacitatea de manevrare a schiurilor reprezintă 90% din tehnica actuală a schiorilor alpini. Aceasta înseamnă că o calitate mai bună a "pilotajului" schiurilor este dependentă de calitățile bocancului de schi.

The difference between your ankle movement in ski boots and street shoes brings us to a topic of paramount importance: picking and adjusting boots.

The following advice is directed primarily at skiers who are looking at boots at the high-performance end of the rack. Lateral stiffness is good. The more the better, usually. Stiffness in the front is another story.

It is easy to be tempted into buying boots that are too stiff in the front for you. Because the hotter the model, the stiffer the boot, and most of us want to be hot. If the stiffness is adjustable, fine. If it is not, beware. And keep in mind the fact that ski boots are stiffer outside in the cold than they are in the ski shop. You are almost certainly better off in a boot that is a bit too soft in the front than one that is too stiff. You can make your own selection of most other boot design parameters based on fit and style, but to find the right forward flex you must consider factors that are seldom discussed in ski magazine tests or by boot fitters.

The main factors you should consider are:

A. *– your personal morphology* – if you are relatively heavy in the hips or lower torso, consider a softer boot. Such a physique makes forwardly adjustment critical, and at the same, difficult. Slim hips and broad shoulders will allow you more options;

B. *– your skiing ability* – unless you are a true expert skier, with the experience to know what you like, stay away from the stiffest racing boots on the rack. Looking cool in the lift line is slim compensation for looking like a buffoon on the hill. A boot that is mushy in the front or well below your ability level will hold you back;

C. *– the type of skiing you intend to do* – if you intend to spend your time cruising skiing fast or skiing in big moguls, a softer forward flex will work better for you. Many ski racers use softer boots for downhill that for slalom and giant

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slalom, and many moguls competitors ski in softer flexing boots. If you ski mostly in hard snow or have a predilection for short quick turns, more buff in the front of the boot is helpful. Fast skiing presents the skier with rapid changes in terrain and snow texture.

Unless the skier is very attentive and accurate in his movements, this changes will cause the skier's legs to press against the front or back of the boots unexpectedly. Dramatic shift in fore-aft pressure results in making the skiing erratic and improving the skier's stability.

Mogul skiing is much harder in boots with limited ankle flexion. Each time the skis run into a bump, the tips will rise and the skier must push the feet forward. A bit to keep from looking up against the front of the boot.

When the skis start into the unexpected vibration, the tips drop and the skier must make sure that her calves do not press hard against the back of the boot.

Skiing well with such a boot in a wide range of conditions is challenging however.

The performance boost they give you on hard, smooth snow, may or may not be worth than the difficulties they present in other condition.

How much forward lean should your boots have? With your boots flat on the floor (no lift under the toe or hell) you should be able to get your hips down at least at the level of your knees. If you cannot get that far, you cannot flex that low to absorb a bump without loosing balance to the rear. Your boots need more forward lean. If you can easily get your rear, end much lower than your knees, you may have that more forward lean you need.

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STUDIA UNIVERSITATIS BABEŞ-BOLYAI, EDUCATIO ARTIS GYMNASTICAE, L, 2, 2005

EAST AFRICAN RUNNING DOMINANCE: WHAT IS BEHIND IT?

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REZUMAT. Dominanța alergătorilor est-africani. Semifondistii si fondistii africani, actualmente sunt forta dominanta in atletism. Dupa cum la fel de bine domina concursurile de pista,la ultimile J.O.ei domina de asemenea si circuitele de alergare pe sosea si de cros din America si Europa. De altfel, multi factori fiziologici si anatomici au fost propusi pentru a explica dominatia Africana, insa cercetarile in cazul acestor variabile nu au scos inca la iveala unele avantaje definitive pentru africani. Factorii culturali si sociali traditionali au fost deseoridescrisi ca fiind in avantaj si desi acesti factori pot fi mai mult sau mai putin importanti in dominatia africana, este probabil ca ambele fiziologii (africana si caucaziana), sunt acum importanti factori aditionali in mentinerea acestori dominatii. Asemeni scandinavilor, alergatorii de fond, care in apropiatul sec.XX. au castigat 28 din 36 de madalii olimpice posibile la probele de 5000 si 10000, est africanii si-au dezvoltat o aura de invincibilitate, atat in mintea lor, cat si in mintea oponentilor caucazieni. Din pacate si astazi se cauta dovezi ale avantajelor fizice est-africane, in timp ce se perpetueaza avantajul psihologic al acestora

Introduction

East African middle and long distance runners are currently the dominant force in athletics. As well as dominating the track events at the last several Olympic Games, they are also dominant on the American and European road racing circuit and world cross country events. Although many physiological and anatomical factors have been proposed to explain East African dominance, research into these variables has not yet revealed any definitive advantage for the African. Traditional social and cultural factors have often been described as "advantageous", and, although these factors may be to a greater or lesser extent involved in the East African dominance, it is probable that both the African and caucasian psychology or "mindset" are now additional important factors in maintaining that dominance. Like Scandinavian distance runners in the early 20th century, who won 28 of 36 possible Olympic medals over 5000 and 10 000 m, the East Africans have developed an aura of invincibility, both in their own minds and the minds of their caucasian opponents. Caucasians world wide are searching for proof of the physical advantage of the East Africans while handing them on a platter a psychological advantage which, until removed, will perpetuate the current state.

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Possible reasons for East African dominance

Many factors have been described to explain both the dominance of East African middle and long distance runners and West African sprinters. Many of these have been disproved many times but are so fixed in folklore that they continue to be touted as possible causes of success. Despite being shown to be unsubstantiated in the 1930s, Sir Roger Bannister, in a speech delivered to the British Association for the Advancement of Science in 1995, suggested that factors such as heel bone length, subcutaneous fat, and differences in Achilles tendon length may explain the advantages that West African athletes appear to have. Proposed factors involved in the success of East African athletes include environmental, genetic endowment, and social development, while the psychological make up of the East African is rarely considered.

ENVIRONMENTAL AND PHYSIOLOGICAL VARIABLES

Environmental determinism is a term used to describe the attribution of human performance to the environment in which the human lives. Scandinavian running dominance in the early 20th century, easily comparable with that of East African dominance today, was felt to be a result of the forests, lakes, and scenery enhancing the performance of the athletes. In the case of the East African runner, it is widely believed that birth and living at altitude produces great athletes, despite the great range in athletic productivity observed between areas of similar altitude. If altitude were the only factor involved, then all African countries with high altitude populations, as well as countries such as Nepal, Peru, and Mexico, should be producing many world class athletes. While studying the difference between muscle fibre types of highland and lowland Andean dwellers, Rosser and Hochachka found that type I (slow twitch) muscle fibres of those living at altitudes of 3300 m had reduced levels of oxidative enzymes (malate dehydrogenase) and enhanced glycolytic ability. Despite the small sample size (three), this may suggest that chronic exposure to altitude reduces rather than enhances maximal aerobic potential. Similarly, using analysis of indirect maximal oxygen uptake and muscle biopsies, was compared five Nepalese Sherpas with caucasian climbers and lowland sedentary adults. Resulted that the Sherpas to have significantly lower maximal aerobic uptake and lower mitochondrial density, but equivalent capillary density and muscle fibre size compared with acclimatised caucasian climbers. Concluded that the Sherpas' legendary endurance could not be explained by any of the features studied, which were found not to be unique to Sherpas. It could be argued that the variables measured do not reflect the key physiological parameters involved, and Noakes has theorised that cardiac function may well be the differentiating variable. Saltin *et al* found that Scandinavian athletes living at sea level had a higher muscle buffering capacity than Kenyan athletes, and that altitude training enhanced muscle buffering capacity in sea level residents training at altitude, but not in Kenyans who reside at altitude.

Hence, although it is clear that living and training at altitude results in a variety of physiological adaptations, the exact nature and relative importance of these adaptations to the success of athletes from altitude are yet to be elucidated.

Legendary runner Ron Clarke highlighted this clearly in 1981, " *...record breaking in distance running has come from very small areas of the world ...New Zealand; Australia; England; a small part of the African continent ...and maybe Finland. These countries have produced the record breakers and yet none of the areas are the same ...Why such a small area of the world has prolifically produced world record holders I don't know*".

Genetic endowment is often stated as an "obvious" cause of East African dominance. This is especially so when one considers the Kenyan experience. In 1988 the Nandi people in the Rift Valley (one of seven tribes making up a larger group known as Kalenjin), comprised 1.8% of Kenya's population but supplied 42.1% of the nation's elite runners. However, intermarrying between the different Kalenjin tribes has been occurring for many years, suggesting that factors other than just the Nandi gene pool are involved. Physiological advantages of Africans have recently been studied in depth, comparing African subelite 10 km runners (eight from the Xhosa tribe, one from the Zulu tribe) with caucasians of similar ability. Founded that the Africans had elevated citrate synthase and 3-hydroxyacyl-CoA dehydrogenase activity and enhanced resistance to fatigue in a treadmill trial designed to imitate the stresses involved in 10 km running. However, no correlation was found between these variables and the best 10 km run time, and the researchers acknowledge the importance of such factors as environmental conditions, nutrition, and motivation in racing performance. With particular regard to Kenyan runners, was reported elevated 3-hydroxyacyl-CoA dehydrogenase but not citrate synthase activity, differences that Weston *et al* suggest may be a result of the confounding effect of altitude exposure. In addition, Weston *et al* found African runners to have a lower percentage of type I muscle fibre, the fibre type that is typically associated with endurance performance. This is in contrast with the classical expectations of elite distance runners and the findings of others, but an other explanation suggest that this is an appropriate adaptation for the increased speed and hence glycolytic demands of modern 10 km running. Hence, while the describtion of possible factors involved in the enhanced fatigue resistance as shown by a treadmill test, there are clearly other factors involved in the consistent racing success of African runners. Similarly, in an other experiment was compared elite South African caucasian and black athletes. Was found that the black athletes trained more intensively and were able to sustain a higher percentage of their maximal oxygen consumption during competition. It was felt that this may have been related to the lower blood lactate concentrations found in black athletes at any given running speed. Although these findings may support an innate explanation for performance differences, it is possible that similar factors may also explain performance differences in racially homogeneous groups.

The degree to which findings from South African runners can be extrapolated to more northern tribes is another factor to consider, given that racial characteristics lack homogeneity even within so called racial groups. Finally, when examining the factors that separate the best from the merely elite, one must consider the rationale of extrapolating findings from subelite athletes.

Clearly innumerable physiological variables could be involved in the dominance of the East African athlete. However, at this stage, the exact nature of these variables and their relative importance, as well as the role of nature and nurture, are not clear.

SOCIAL VARIABLES

The British attitude to their own sporting prowess in the early 20th century and the relationship to training children and adolescents is reflected in an early text on athletic training. "We pride ourselves on being ...the *first* athletic nation. We have many assets that should make us so. Our public school games are, one and all, of incalculable help towards the many assets demanded in an international competition. By favour of these, the youngster, unknown to himself, is putting in his ground work, in conjunction with a national temperament that has, in the past pulled off big things. Pluck, patience, enterprise, equanimity in loss, restraint in victory, suppleness of limb, are all indirectly taught the schoolboy, and if he can be kept up to the mark set by all public schools, no more can, or should be, expected of him. He is undergoing the fullest training that any healthy lad should be subjected to".

With the emerging East African athletic dominance, similar principles appear to have been applied. Years of running to and from school as children and adolescents has often been quoted as contributing to the development of elite East African runners. Indeed, the elite subjects are describe as having run or walked an average of 8–12 km a day, five days a week from age 7–8 years, increasing to 90 km a week as adolescents. They also found that Kenyan children who did not have to walk great distances to school had maximal oxygen uptakes 30% lower than those required to travel to school by foot, and hence similar to that of Danish children. However, they also describe how Kenyan teenagers "out of training" had significantly lower maximal oxygen consumptions than students who had just begun regular training. Hence, this may in fact suggest that organised training plays a significant role in the development of high maximal oxygen consumption in Kenyan adolescents. Small samples and a lack of clarity about exactly what constitutes formal goal directed training make these findings difficult to interpret accurately. In comparison, Bale and Sang report that 14 of 20 elite Kenyan athletes interviewed never had been required to run to school. As long ago as 1960 when the great Kipchoge Keino appeared on the international scene, talented Kenyan runners were being removed from their homelands and being placed in protected employment to enable the full development of their running ability. With the increasing westernisation of Eastern Africa and the development of athletic programmes in schools, targeting the perceived Nandi potential, one must question the role of "natural training" in the development of elite athletes.

In comparison with the Nandi, who have remained a relatively rural society, many other Kenyan tribes have experienced accelerated urbanisation, with the resulting availability of alternative sports in cities reducing the pool of competitive runners. Hence, the rural environment and lack of resources for alternative sports is one of the factors involved in the maintenance of the Nandi dominance of Kenyan running.

Clearly, while the latest generation of East African athletes have a very different social development from those of the first half of this century, similar stereotypes continue to be applied. As has been illustrated, these stereotypes are based on factors that are no longer universally applicable.

PSYCHOLOGICAL VARIABLES

There is clearly more to the East African success story than their physiology, genetics, and childhood athletic endeavours. Regardless of physical attributes, the tougher athlete often prevails and the difference between success and failure is often more easily, and perhaps more appropriately, attributed to factors such as psychology. Psychologically, performance can be considered to be a function of the interaction between a person and the environment, or, by extension, the interaction of intrapersonal and interpersonal factors. Intrapersonal factors such as belief in oneself, motivation, achievement orientation are critical to performance. Berg-Schlosser disclosed in the 1970s that, of all the Kenyan tribes, the Kalenjin had the highest achievement orientation, while Mahlmann more recently found that the Kalenjin had the greatest ascetic experience of sport, both factors considered to be important in the successful performance of individual sports.

Attitudes may be defined as "relatively stable, individual difference characteristics that presumably (sic) predispose the individual to certain behaviours", and which tend to be directed towards specific objects, people, or ideas. Festinger's theory of cognitive dissonance may provide some insight into the development of attitudes to East African runners by caucasians. This theory suggests that people like to be consistent in their thoughts, attitudes, opinions, and behaviours. Hence, if one considers that there is no advantage in being an East African in terms of athletic performance, and yet is consistently confronted with caucasian defeats, cognitive dissonance is created. To reduce this dissonance, either caucasian results must improve or beliefs about the advantages of being African must change. Clearly if the latter occurs, a belief structure is set in place that will aid only the East African.

Triandis described three components to attitudes:

1. cognitive—reflecting beliefs, or knowledge, on a given subject, object, or person;
2. affective—positive or negative feelings towards a subject, object, or person;
3. behavioural—the intended behaviour towards the subject, object, or person.

Hence, from a caucasian point of view, a person's cognitive understanding of a group such as East African runners, although not directly predicting behaviour, when combined with other factors such as social situation will certainly influence the person's behavioural pattern. If therefore a person believes that Kenyan runners have an advantage for whatever reason, then this has the potential to affect their performance negatively, especially if this belief is being supported by peers and social constructs. Clearly this may result in the formation of a self fulfilling prophecy.

Finally, it is important to consider the factors to which individuals attribute their successes and failures. The attribution of failure to stable external factors—

for example, task difficulty, better opponents—as reducing the shame associated with failure, but as having the worst prognosis for future performance. Understandably, this is the process caucasian runners may use whenever looking for a genetic, developmental or physiological advantage in being East African. In comparison, East Africans may now believe that they have physiological advantages that explain their success. This stable internal attribution style will have a positive effect on their future performance.

It is clear that there is a theoretical rationale that psychology plays a critical role in the dominance of the East African runner. The attitudes of both the African and caucasian may be providing an advantage as great as, or greater than, any of the more tangible factors more traditionally studied.

Conclusions

Domination of individual sports by countries or regions of the world is not a new phenomenon. It seems that the presumed causes of such domination are often recycled, out of date, and based on misinformation and myth. Over the last few years, it appears that North African countries have been producing large numbers of elite international athletes. Are we now going to search for the genetic advantages of these nations? Although there is no conclusive evidence for an inherited physiological advantage to the East African, this does not exclude the possibility that one actually does exist. It may be that the technology required to detect any differences is currently lacking.

However, irrespective of the existence or otherwise of any physiological advantage, it is possible that the attribution of caucasian running "failures" to anecdotal stable external factors disempowers caucasians. Similarly, this attribution style empowers the East African, just as it did the Scandinavians in the early 20th century and Australians in the 1950s and 1960s, with a psychological advantage, the importance of which cannot be overestimated. Fixed beliefs and attitudes to those anecdotal contributory factors continue to impede the success of caucasian athletes. Sports scientists and practitioners aim to maximise athletic performance, and yet it seems that they are all too ready to accept that the East African dominance is due to factors out of their control. Although many factors contribute to East African running success, present caucasian belief and attitude systems may be a significant perpetuating influence. Until our athletes, coaches, and support staff accept responsibility for their own performance, the current level of athletic domination by East African athletes may continue.

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FLEXIBILITY – A FUNDAMENTAL MOTRIC ABILITY IN THE ARTISTIC GYMNASTICS

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REZUMAT. Suplețea – aptitudine motrică fundamentală în gimnascica artistică. Complexitatea elementelor tehnice din gimnastica artistică, impune debutul în acest sport la o vârstă fragedă (5-6 ani), când copilul se află în plină dezvoltare anatomo-funcțională. Aplicarea mijloacelor de dezvoltare a suplеții, se poate face începând de la această vârstă, însă fără exagerări care să ducă la accidente. Este indicat ca articulațiile, dar mai ales mușchii să fie familiarizați cu întinderile încă din debutul în această ramură sportivă.

One of the major requirements of the artistic gymnastics is the execution of the technical elements of great amplitude. A higher amplitude provides continuity to the performance and additional beauty. The lack of an optimal mobility in artistic gymnastics is regarded as a limitative factor of performance. The presence of an optimal level of development of the flexibility allows the athlete to approach a larger variety of movements in various free combinations (Vieru, N. Page 41).

Flexibility is defined as „the capacity of being flexible, malleable; the ability of a body to sustain great elastic deformations under the pressure of relatively small influences; being elastic (DEX, page 1043)

Flexibility is a functional anatomical group, which contains joints (capsules, ligaments) and muscles. It can also be described as **the capacity of performing various movements that require a high degree of amplitude.** The complex motric movements of artistic gymnastics cannot be learnt or perfected without a good articular mobility and muscular flexibility.

Apart from improving the amplitude by performing motric gestures, the exercises that deal with the development of mobility play a **rehabilitating role and they prevent osteo-articular injuries.** The joints and the muscles are stretched, by specific means, in the directions and following the required trajectories during the performance of the motric gestures, on the specific apparatuses used in competitons.

According to the way in which the action is performed, flexibility/mobility can be classified into two categories: active and passive mobility.

The active mobility represents the maximum of amplitude obtained at the level of the articulation by using its own muscularity. This type of mobility is divided into two categories as well: *static active* and *dinamic active*.

a) Static active: it is manifested in the situations when a high amplitude position must be maintained;

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b) Dinamic active: intervenes whenever high amplitude movements are performed, and when during these movements one or more articulations are involved.

This type of mobility is essentially based on the contribution of the **agonist muscles**.

Passive mobility represents the highest amplitude obtained at the level of the joints, with the aid of an external intervention (for exemple-the stretchings directed by the coach). In this kind of mobility, the attention is focused on **the ability of the antagonist muscles to stretch and relax.**

Artistic gymnastics has a series of **technical elements presenting a high mobility** in their nature. We will mention only the ones that are most frequently used: „the bridge", the split (lateral, sagital, vertical), „the balance" (front, lateral, Y or uneven). A correct performance of these elements involves a high level of active mobility from the great joints and, implicitly, from the groups of muscles.

With reference to the development of flexibility (mobility), there are several methods developed and we will mention the following ones: the swings, swings with maintaining balance, passive and active stretchings and extended stretching.

This present work deals with a series of drills that represent passive stretchings performed with the aid of the coach. These routines target all great joints and the muscular system and increase the amplitude of the movements. To prove their applicability, I designed a series of ***initial tests*** and one ***final test***, administered after one month of training, with three weekly sessions of one hour each.

The tests were in fact some measurements taken during the performance of certain elements which require that certain joints and groups of muscles around these joints to be mobile/flexible.

1. Measuring the degree of mobility at the level of the scapulo-humeral belt and the spine in extension. For this test we use the element called „the bridge", starting the element from the ground (lying on the back). The subject starts the execution from lying down on his back, the arms bent and the palms against the ground, bent knees and soles on the ground. The subject will perform the bridge by extending the arms and legs and pushing up the waist vertically. The examiner will measure the distance between the fingers and the heels when the subject reached maximum of extension.

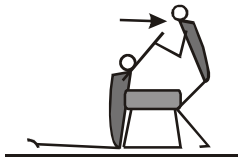
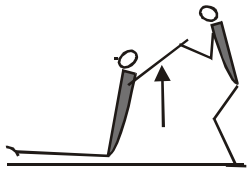
2. Measuring the degree of mobility of the spine in flexion: for this test we need a device, made out of a 40 cm cube, with a measuring scale on one side (the one right angled to the ground). The subject is sitting on this device, performs a flexion of the spine keeping the legs straight and lowers the palms along the scale untill he reaches the maximum point and remains there for 2 or 3 seconds. The examiner will mark down the spot reached by the subject with the middle fingers.

3. Measuring the mobility degree of the coxo-femural joint: this is done in order to determine the degree of the coxo-femural opening, lateral or sagital. The subject performs a lateral (sagital) split, and the coach will examin the distance between the ground and the lower side of the pelvis.

From the variety of drills used to develop flexibility (mobility), I designed a set of **drills for the passive extension.** These means, once selected, were applied

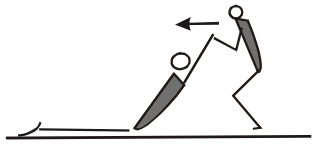
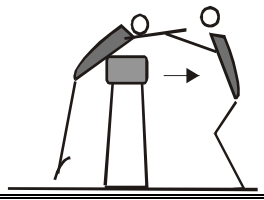
on the great joints and, implicitly, on the groups of muscles. For a better organisation, the means were then applied on the scapulo-humeral belt, the spine and the pelvic belt (with an emphasis on the coxo-femural joint).

1. Means used to develop the mobility of the scapulo-humeral belt

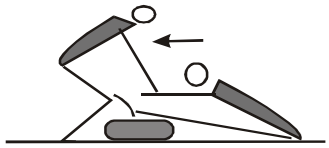
	**The development of mobility of the scapular belt in anteduction**. The subject is sitting down, with the back against the case, with his hands up. The coach grabs the forearms, and pulls gently and progressively backwards, as far as the scapular belt allows. When the pain comes in (mild one), the coach stops, maintaining the position for 30 seconds. This drill requires 3 series with 20 second breaks in between the series.
	**The development of mobility of the scapular belt in retroduction .** The subject is seated down, with the arms down and in the back. The coach grabs his forearms (twisted in pronation) and gently lifts them up vertically. Everything must be performed within the limits of medium pain. When the maximum point of lifting is reached, the coach stops, maintaining the position for 30 seconds. The drill contains 3 series, with 20 second breaks in between the series.

2. Means used for the development of the flexibility (mobility) of the spine

a) in extension

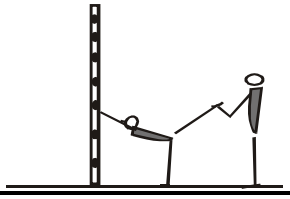
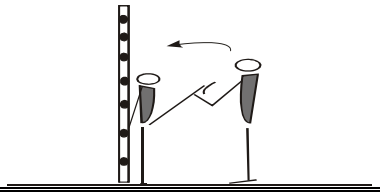
	The subject lies with his face down with the arms stretched forward. The coach grabs him by the hands, pushing the arms backwards and upwards, thus performing the extension of the spine and of the shoulders. When the subject accuses pain, the extension is stopped. This position is maintained for 25-30 seconds. The drill has 3 series, with 20 second breaks in between the series.
	The subject sits with his back at a distance of 20 cm in front of the vault, with the arms lifted up. He will perform the extension of the torso, leaning against the vault. The coach grabs his arms and pulls backwards, thus the subject remains in hanging. This position is maintained for 25-30 seconds. The drill has 3 series, with 20 second breaks in between the series.

b) flexing

	The subject is sitting down, with the feet sustained by an object (a matress), and with the arms stretched forward. The coach is positioned in front of the subject, grabs his arms, pulling him forward untill reaching the maximum. This position is maintained for 30 seconds. This drill has 3 series, with 20 seconds breaks in between the series.

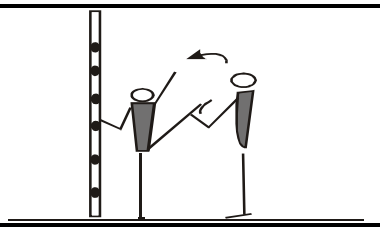
3. Means used for the development of the flexibility (mobility) of the coxo-femural joint

a) sagital opening

	The subject is standing, with the espalier at 1 m in front of him. He grabs the espalier at the level of the shoulders and lifts one leg in the back. The coach grabs the leg and pulls it upwards vertically. When reaching the maximum point, the coach will maintain this position for 30 seconds. This drill has 3 series with 20 second breaks in between the series.
	The subject stands with his back against the espalier, with the arms lowered and grabbing the bar behind him. He lifts one leg up in front, with the help of the coach, up to the limit of medium pain. This position is maintained for 30 seconds. This drill has 3 series, with 20 second breaks in between the series.

These means of development of the mobility have been applied on an 8 year old subject, Bogdan PUSCAS., who proved to be lacking in mobility. The program was held in the gym hall near the N. Balcescu high school, during one month (november), with three weekly sessions of one hour each. During these sessions, to avoid injuries, the program contained also the warm-up for the locomotory apparatus.

b) frontal opening

	The subject is standing sideways from the espalier, holding the espalier with one hand, and the other arm is lifted up sideways. The coach helps him to lift one leg sideways, up to the maximum point, without passing the medium pain level. This position is maintained for 30 seconds. This drill has 3 series, with 20 second breaks in between the series.

After applying the set of tests, the values obtained during testing were marked down.

Tests applied	The bridge	The flexion of the torso on the thighs	Lateral split	Sagital split
Initial testing	80 cm.	5 cm.	13 cm	15 cm
Final testing	60 cm	10 cm	8 cm	8 cm

CONCLUSIONS

The final results show that the means used for the development of mobility proved successful. To avoid any injuries that might occur during the performance of the selected means, we should take into account the following principles:

- it is necessary that the muscles are well warmed up before the stretchings;
- the temperature of the environment is also very important during the stretching drills, it is preferable that the temperature in the room is high;
- the muscular stretches will be executed slowly and gradually, combined with a steady breathing pace;
- before a stretch, we may perform an isometric contraction (5-6 sec);
- as an auxiliary „aid", we should search for the maximal amplitude, untill the pain shows up, which has to be a medium, bearable one. Intense pain will inhibit the athlete and will create a blockage in relation to mobility drills;
- it is important for the subject to be relaxed, to avoid uptightness and to avoid any sudden contractions of the working muscles. The subject must feel the movement, to work with his own sensations and to communicate with the coach.

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STUDIA UNIVERSITATIS BABEŞ-BOLYAI, EDUCATIO ARTIS GYMNASTICAE, L, 2, 2005

PREPARATION FOR PROFESSIONAL FOOTBALL – CONCEPTIONS ON NATIONAL AND INTERNATIONAL LEVEL

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REZUMAT. Pregătirea pentru forbalul de performanță – concepții pe plan național şi internațional. Jocul de fotbal la nivel competitiv a atins cote superioare, angajând întreaga capacitate a jucătorilor, mobilizând resursele intelectuale psiho-fizice şi tehnico-tactice. Improvizatia si actiunile spontane se pot cultiva cu conditia ca ele sa serveasca echipei, respectandu-se disciplina tactica de ansamblu.Conceptia de joc a echipelor poate suporta modificari in functie de caractereul jocului (turneu, calificare, promovare), conditiilor de joc (acasa, deplasare, teren, clima, temperatura), valorii adversarului (cu sau fara individualitati), mizei si motivatiei.

Systemizing, the team's game should be made on the basis of the modern characteristics: collective, constructive, rational and total engagement game, which are demonstrated by a perfect discipline from the players in all game phases. Thought this discipline the conscious organization of actions imposes itself apart from the individual, random and hectic game. In this "organized and conscious frame" there will be realized a synchronized movement of the team players for making "the offensives nucleus" in the purpose of starting a new attack vector which becomes faster and more keen on its way to the opponent's gate.

The player circulation without ball is continuous but after he delivers the ball he will go immediately in the empty areas where he can threaten the opponent's gate. The maneuvers, with and without the control of the ball, are changing with the purpose of dislocating the defense and for creating color at the decisive pass of individual penetration.

The offensive actions are realized especially on the lateral areas of the field thought changing the attack direction surprisingly and varied. A special attention will be given to the maximum achievement of fixed phases, in this way constructing a few variants for each action.

The materialization of the game concept is suitable for the four half-back system applied flexible, in report with the players' specific features and with the general value of the team. Within the framework of the system attribution and tasks of the players are distributed on functions, so that their efficaciousness to be better, leaving place also for individual initiative.

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The game conception of the teams can support modifications in accordance with the game character (tour, qualification, and promotion), the game condition (home, away, field, climate, and temperature), the opponent value (with or without individualities), the stake and the motivation.

The game conception of the divisionary football teams is recommended to be established in accordance with the characteristics and comportment features of the players from Romania, in concordance with the international football demands. Here we observe the presence of some characteristics and special features, with positive and negative character, which should be always taken in consideration in the club's team activity and of the national selected team.

The good results obtained by the players and the Romanian teams are also the effect of some special native qualities proven through spontaneity in thinking and action, enthusiasm, sociability, technical ability but it is also true that some negative aspects still can be found in the players behavior and which had brought not only one time disservices to the Romanian football, all of which should be taken in account in the economics of each team: futility in respecting the game discipline, reduced concentration in game phases (in construction and mostly in finalizing), the individualist and ineffective game tendencies, repulsion toward the continuous and intense effort (mostly in training), rashness and incontrollable behavior.

Taking into account the mentioned aspects in constructing the game conception this should be applied especially on the continuous game improving through:

- realizing a superior technique in the condition of raised speed and adversity;
- the function of the team in every offensive and defensive actions;
- simplifying the attack phases and finalizing them through simple and secure actions.

The game conception at the international level

The evaluation of the level at which football usually shows itself with the occasion of the World Cup, the European Cup, etc.; the events offer the possibility of a tactical confrontation conceived on the flexible character of the game idea which permits the use of different solutions from one game to another.

Setting the game conception is determined by the international football characteristics which all teams should respect to be competitive:

- Professional football it's accomplished on the basis of a well-defined strategy, on knowledge and on tactical skills very well respected and learned.
- In its dynamics the football game imposes the resolution of actions through basic and secondary functions of the players, not through post which limited tasks and attributes in the frame of some segments;
- The full game capacity of each player is under subordination of team interests, including the leaders' who should understand the team is the star;

- During the attack and defense actions the high collective spirit and a total psychophysical engagement it's shown;
- During the attack and defense phases a number superiority by one player is looked for tactic;
- The attack actions happen by the alternative or on short periods utilization of the different collective forms of attack, such as the positional, rapid or contra offensive one;
- The exact knowledge of the content of the competitive game, of the value and efficiency of each team component, becomes possible by the knowledge of special sciences indispensable to great performance;
- The leadership of a team cannot be imagined without quality specialists such as the manager, the technical director, the main and secondary coaches, the medical staff and other employees from the organizational and administrative segment.

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STUDIA UNIVERSITATIS BABEŞ-BOLYAI, EDUCATIO ARTIS GYMNASTICAE, L, 2, 2005

DETERMINANTS FACTORS FOR SPORTIVE SELECTION IN THE ROMANIAN ENVIRONMENT

SANDOR IOSIF[1], RUSU GABRIELA[2], SZABO PETER[3]

REZUMAT. Mediul ambiant din România, factor important în selecția sportivă. Acest studiu încearcă să clarifice tendințele sănătății ambiante din România, în strânsă legătură cu ereditate, asistența medicală şi modul de viață al populației tinere, susceptibilă a fi selecționată pentru sportul de performanță. Sunt tratate probleme legate de ereditate şi sport, de păstrarea unui mediu ambiant sănătos optim pentru vigoarea tinerilor practicanți ai sportului.

Man is born, lives and evolves in an environment that is obliged him to a continuous and active, creatively and variably selective adaptation of him in order to modify this environment in his favor.

What determines the disposition for sport of the Romanians? What determines their health / sickness? The pressure of rising health throughout sport costs increases the need to understand the determinants of disposition and the role of environmental health in the sport selection system.

The purpose of this study is to define the needed environmental health for the population, in generally and the athletes, especially, regarding the sportive selection for performance.

What we want is to offer data, in favors of the fact that the environment with **hereditary or biological factors, medical care and lifestyle** has a very important influence on young athlete's health and in sportive selection.

1. Hereditary, biological factors

Major aspects of human biology are controlled by genetics. A person may be healthy in every other way but may have inherited conditions such as specific sports skills. Research now provides evidence that traits inherited from the mother and father can influence whether a person becomes a good athlete. The researches made by specialists in the field (Ifrim, 1986, Farmosi, Nadori, Bakonyi, 1986, Klissouras, Marisi, 1976), as well as by some sociologists, have pointed out the influence that the environment has on the characteristics of the human being, as heredity is a process through which the genetic patrimony are biologically transmitted.

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The genetic information can be valued only under the influence of the environmental conditions. The hereditary influence is mainly exercised on stature and on other physical characteristics related to it. No matter the stage of the development, the influence of the environmental factors determines different effects for each of the developing stages of the individuals. This denotes that **the genetic material is changing under the influence of the environmental influence. Without the conditions offered by the environment – including training and preparatory possibilities, education, social conditions-, the genetic information would be lost and it could not be turned to the best account.**

The process of selection of the athletes that have special skills for a sport or another is made individually, based on objective and scientifically valid methods and tests. The talent is given by the sum of the interrelations between endogenous and exogenous factors.

Among the endogenous factors are the motric qualities (strength, speed, and coordination), the anthropometrical qualities, the functional physiological systems and apparatuses, psychological factors. Some of them (diverse manifestations of strength, body weight, diameters) can be developed under the influence of the environmental factors (training), while others (speed, size) are rarely changed by external stimuli.

Motoric qualities can be determined in an optimum way during the adolescence period (Nadori L., 1993).

The genetic premises and the social influences are the active factors of the general evolution, as well as the preparation of the performance capacity of man.

The human organism, influenced by environmental factors, can be transformed only because of the genetically determined reactions. Any vital or pathological phenomenon is genetically influenced.

The genetic adaptability is explained by the concordance between heredity and environment. The critical periods of growth and evolution, strongly connected with the optimums influencing period, can modify the main features of the organism.

There are favorable and unfavorable factors for the motoric activities, which, correlated with hereditary factors, in connection with the environment, represent the conservatory, limitative component. They cannot be modified. The organism is inheriting ciphered information during some nucleic sequences, which control individual qualities that are connected to metabolic processes. These qualities are changing, evolving only under the influence of the environmental factors. A favorable environment, closely related with psychological, biological factors creates the premises for a superior development of the physical performances. The separation of the hereditary component from the environmental one was made through differentiating confrontations of identical and fraternal twins (Klissouras, 1993).

In the interaction between the environment and heredity, “heredity cannot activate alone and there must be a certain environment in which the hereditary factor could find his manifestation.”(Klissouras, 1982).The genetically conditioned qualities are influenced by factors containing the hereditary norm as well as by the environmental conditions.

2. Medical Care

The medical care we receive during our lifetime can determine the young athletes health, in generally the sportive selection. If a young talented athlete, who would start the sportive activity, not receives proper medical care, he or she might end up without have ever the possibility to practice sport activities.

The main aspects of health care, which affect everyone, are:

- technology - *the* technological devices which belong to society and include sophisticated equipments for treatments;
- interest in medical self-help-care, self-examination of the own body;
- the activities to prevent the diseases.

3. Lifestyle

Generally, the term of *lifestyle* are not capitalized and used by man and society in order to practice sports in general or to achieve performances. Typical activities that take place in different environments, from economical ones to recreational ones, and the way they are displayed under the influence of the natural factors favor a great development of the driving capacities of the population. Everybody must have the opportunities, such as: tourist locations, sports practiced by all kinds of people, seasonal sports etc. One also has to have in mind the sports traditions in those areas, as well as the different types of advantages that would result afterwards. We are referring here to such fields as: education, tourism, communications, health, commerce, provisioning and, of course, by having in mind that men, as social beings, are always in contact with their fellow-creatures.

The Romanian environments have suffered major perturbations in the last few decades, which have affected the major sectors of the economic and social life. Due to them, the country has returned to the “traditional rural society, based on the small subsisting agricultural farmstead.”(Pasti,1997). In other words, Romania is characterized by an accentuated degree of environments (Sandor, 2002).

Because of the specific of the people wrong lifestyles mentalities the differences between the environments are more than categorical and expressive, although, on an international scale, life is leveling tendencies in the natural evolution of the society are obvious. If in the economically developed countries the urbanization tendencies are normal, in Romania we encounter a unique way of organization of the rural space through (Surd,1998):

Life standard is one of the lowest in Europe. The homemade food production and the maintenance of life are achieved with a lot of physical work, made by all the members of a farmstead, from the youngest to the oldest. People in some areas suffer malnutrition and other diseases caused by the lack of proper nutrition.

The somatic and motoric parameters of the population reflect the lifestyle (Sandor, 2002).

Lifestyle has a lot to do with one's health. Lack of sleep and rest reduces our resistance to infections and leads to bodily degeneration. A person, who has an

excellent body but eats poorly, or high-fat, high-sugar, high-salt, low-fiber diets does not exercise enough, and smokes and drinks heavily may develop health problems rather quickly. Moving sidewalks, escalators, elevators, cars, buses, and other means of transportation may be leading people to an early demise. Like all muscles, the heart muscle will waste away if it is not used vigorously. Considering these factors, it is rather easy to understand why the lifestyle has importance in the health of the young's which we want to select for sport performance.

Of all the health determinants, lifestyle may be the easiest to control.

4. Environment

The structure of the environmental space and of all the forces that actuate on this includes a series of resources that are closely connected to the climate, altitude, vegetation, water and air quality, work force, infrastructure etc. The environment in which one lives is quite varied, having different effects on that person.

Considering the world's population as a whole, the environment affects people's health more strongly than any of the other determinants. In the past, because of poor environmental management, many people died from environmentally related diseases. Some estimates, based on morbidity and mortality statistics, indicate that the impact of the environment on health status is as high as 80% (Monroe,1997).

In order to have healthy people and good athletes too, first it is need producing biological defenses against disease. In every environment must be health care practice.

Those practices include:

- water quality management, pollution control;
- human waste disposal;
- solid and hazardous waste management;
- insect control;
- food quality management, sanitation;
- occupational health practice;
- travel / international travel sanitation;
- air / noise pollution control;
- housing hygiene;
- radiological health control;
- recreational sanitation;
- founding environmental agencies;
- consumer protection;
- environmental planning.

The disease could appear from major causative agents:

- biological agents - *virus*, *bacteria*, fungi and protozoa;
- chemical agents - cleansing agents, pesticides, petroleum products
- physical agents - ionizing radiation, noise-producing, sun's ultraviolet radiation
- less – consumption: less food, bad nutrients, lack of Vitamins, mineral salts;
- over-consumption: to much food, improperly eats;

- heredity: inherited genetic, skeletal traits;
- stress, which occur: emotional disorders, alcoholism, drug abuses;
- unknown cause: other factors working synergistically with environmental pollutants; the exact cause of illness may never be known.

These agents could spread from air, water, food, insects, and animals, contact with inanimate objects. The people must "applying environmental technology and the arts and sciences to control the causative agents of disease in the environment before they reach humans" (Monroe,1997). Each athlete, in order to be healthy, must adapt the own body to prevent the agents. The family has a very important role in the young's education. The protective mechanism consists first of hygienic skin (major portal of entry), hair, eye, ears, the reproductive organs protection, adequate nutrition. Whenever possible, however, the athletes must prevent sickness. Their knowledge's helps them for a better understanding of the role of environmental heath practice in the health maintenance system.

Conclusions

Romania has a space, which is characterized by a great diversity of the environments, which have an important influence on the population's lifestyle, and, implicitly, on a series of characteristics of the physical and psychical development. The impact of the technology in the functioning of Romanian society change the life style, change the degree in which individuals deal with sport. We could see that one of the causes of lowest sportive performances and loosing old traditions in sport is the poorest environmental health of the population and especially of the youngest one.

Our analyze make some valuable conclusions about the health phenomenon taking face in the Romanian environments in order to determine the influence and the "implication" of the environments health in the formation of the many people capable of resisting to the sternness of the high level sport practice. People must have acquired intelligence, knowledge, and expertise that have allowed them to make significant changes in the environment, thereby creating conditions that lessen the likelihood of disease. This is accomplished mainly by controlling the causative agents of disease while they are still in the environment, before they reach people, so the body does not have to produce defenses and therapeutic measures are not required. The Government must be involved actively to restore the damages of the lack of environmental health.

The personal decision of the athlete should direct the choosing of the branch of sport. However, according to our experiences, there are several other factors, which influence the decision process.

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STUDIA UNIVERSITATIS BABEŞ-BOLYAI, EDUCATIO ARTIS GYMNASTICAE, L, 2, 2005

THE HISTORY OF THE FIRST OLYMPIC MEDAL OF CLUJ

KILLYÉNI ANDRÁS-PÉTER

REZUMAT. Prima medalie olimpică al atletismului Clujean. Istoria sportului clujean cuprinde peste 150 de ani. Unul dintre cei mai mari sportivi al oraşului nostru a fost Ştefan Somodi, atletul care a câştigat medalia de argint la jocurile olimpice de la Londra din anul 1908. La aproape o sută de ani de la câştigarea medaliei olimpice este de datoria noastră să rememorăm aceste momente victorioase şi să-i cinstim memoria

Almost one hundred years ago a young man from Cluj qualified as the best athlete of our city and the best high jumper of Hungary. His name was Stefan Somodi and he won the silver medal in the high jump competition in London, at the third Olympic Games. Unfortunately, sometime history is unfair with people: after one hundred years his name is almost forgotten by the citizens of Cluj; only a few sportsmen know about his remarkable results. This paper is meant to highlight his performances and give an account of his achievements, because I think it is our obligation to keep his memory alive.

Stefan Somodi

Stefan Somodi was born in 1885 in Cluj. His father was a respected lawyer of our city, and he thought his sons deserved to get the best education, so the young Stefan and his elder brother, Andrei went to the Reformed High School in Cluj. There was a well-developed sport life in this school thanks to the school's young sport teacher, Alexandru Varga. The teacher held many athletic trainings and contests and gymnastic exercises. He also organized winter ice-skating in the schoolyard, which was thus always crowded with playing students.

Varga recognized Somodi's sports ability and he launched his student to high performances. In 1903, when Somodi was graduating, he won two big contests:

the first on in Debrecen, where he proved to be the best long- and high-jumper, and the other one here in Cluj, where he won the first place at high-jump, with the remarkable result of 172 cm. The interesting fact is that a few weeks earlier the winner of the national championships had won the first prize with a performance of 169 cm. This was the moment when the Hungarian sports community first noticed his name.

Practice on the school-yard

After graduating high school, Somodi attended the law courses of the University of Cluj. He continued his training and shortly after his outstanding results at high-jump and long-jump he became better and better. He won several competitions and he earned the participation to the jubilee Olympic Games in 1906. At this event the young boy from Cluj managed to enter in two finals, a real success for him.

After this contest Somodi focused only on the high-jump event. His results grew better and better, and after 1907 he began to correct the Hungarian record in high jump. Shortly before the Olympic Games, Somodi jumped 184 cm, still he was considered an outsider in the Olympic contest.

The best athletes of the world arrived in London. In the high jump event the favorites were the American and English jumpers. The contest was organized in two parts: in the morning the qualification

In the stadium in London

round took place, in which the athletes were selected in qualifying groups. This was followed by the finals, in the afternoon, during which the best eight performers from the group stage were jumping.

In the qualifying, Somodi jumped 180½ cm and with this result he came second in his group and he entered the finals. The other qualified athletes were: Porter, Moffit, Gidney and Patterson from the USA, André form France, Con Leahy from England, Hedelund from Sweden. In the beginning the Swedish sportsman

Somodi's jump in the contest

retired, so the final began with seven jumpers. They all got through to 185½ cm. At this point André, Con Leahy and Patterson were eliminated; Somodi managed to qualify with his second attempt.

At 188 cm, Porter qualified himself with his first jump but Moffit and Gidden pulled down the pole. After missing his firs and second attempt, the entire stadium was supporting Somodi. This was a time when the English people didn't like the Yankees. Amid the ovations of the entire stadium Somodi jumped 188 cm. In this moment everything was possible, but Porter jumped 190½ cm. Somodi's first jump almost succeeded but in the last part of his jump he touched the pole with his hand so the pole fell down. His second attempt was identical with the first one, and nobody understood how the bar fell. Somodi's third jump didn't have the optimal high so Porter won the championship and he became the olympic champion. Somodi's result was a unique one in Hungary's athletic life of that time, and he was celebrated like a hero in Cluj. When he arrived at the train station a large crowed was waiting for him. The vice-mayor greeted Somodi and took him with his carried to the mayor's office where the principals of the city welcomed and congratulated him.

Mr. Stankovits Szilárd, sports writer and correspondent from London wrote about Somodis performance: *Somodi István stood out with extraordinary self control*

and calmness. His appealing and modest personality was sympathetic to everyone. His victory is the result of hard work and serious pursuit.

Somodi's outstanding result was one of the reasons for building a new stadium in Cluj. This new stadium was inaugurated in 1911 and it was one of the most modern sports arenas in Hungary.

After the Olympic games Somodi continued to win at big events, but he participated at few contests. In addition, since he realized his best jump in London, his performance of 188 cm. was not homologated as a national record. But Somodi jumped 188 cm in 1910 and this became the new national record.

In spite of his remarkable results Somodi didn't participate at the next Olympic Games in Stockholm because he prepared for his lawyer exam. The First World War ended his career but after 1918 his work as a coach brought many big successes for the athletic life of Cluj.

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