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CONTRIBUTION OF SPORTS PERFORMANCES POSTULATES AND OF BIO-PSYCHO-ELECTROMAGNETIC ENERGY PHENOMENA TO INCREASING THE SUPERIOR PARAMETERS IN COMPETITION

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Abstract. *In the presented text is given information on addressing the hypothesis that highlights the fact that sports performance is based on the real phenomena of psychic energy and biological energy that directly influences athletes.*

There is a repeatability of electromagnetic field influences on the training and competitive process. Bio-psycho-electromagnetic information is a lifeline that concentrates all energy systems at the body's electricity level. Athletes aged 15-17 have a magnetic "quantum" of qualitative value influence 1,084 - 1,831 indices, those of 20-21 years of 2,769 - 2,998 indices. The admitting experiment, organized during 2017-2018 at the Sport School of Olympic Reserves, Chisinau city, demonstrated that in 52,86% of cases for participation in National and International competitions, fighters and boxers have won prize places I and II value expressed with a qualitative magnetic "quantum" from 1,084 to 1,831 indices.

The polygon of correlative link between the performance values obtained and the bio-psycho-electromagnetic characteristics confirm the hypothesis of our research.

Keywords: *postulates, sports performance, transformation of energy, parameters, competition, energy potentials, ranking in competition, bio-psycho-electromagnetic energy.*

Actuality of the research topic. The term "**Performance**" means a particularly good result obtained by someone in a sports competition [1, p.778]. Individual performance in sport is based on fundamental principles of the sport theory, requires a great physical, technical and functional effort, as well as a psychological training that is the key to success at the highest level.

It is known, however, that through the human body electric currents circulate [2, 14]. They represent one of the modes of the body adjustment, and their circulation is manifested through the nervous system. The energetic information, as a functional system, after P. C. Anohin and I. P. Pavlov, quoted by L. G. Pucico [12, p.18] is connected to each organ

and tissue, is transmitted from the brain as apparatus for automatic regulation of capacity of their functionality [15, p.259-294]. Electrical currents also circulate between all body cells [13] producing electromagnetic fields [3, 8, 9, 14].

The model of an athlete of performance is made up of specific cellular models with integrated electrical features. In bio-energy, the word "integration" is used to describe magnetic movement in the body from head (psychic energy), trunk toward the lower limbs (biological energy), and vice versa without locking [10, p.26] forming a bio-psycho-electromagnetic circuit [p.425].

In the Figure 1 is demonstrated the energy circulation through the body.

<p><i>Psychic energy</i> - state of consciousness, energy challenge including alpha waves in the posterior brain level. Stimulates energy centres to overcome psychic state, cultivate emotional intelligence, energetic skill,</p>
<p><i>Biological energy</i> - stimulates the meridians of the heart, lungs, kidneys, liver, spleen, stomach, large intestine, small intestine, pericardium, bladder and gallbladder. It stimulates the energy harmony of the arms, trunk and lower limbs.</p>

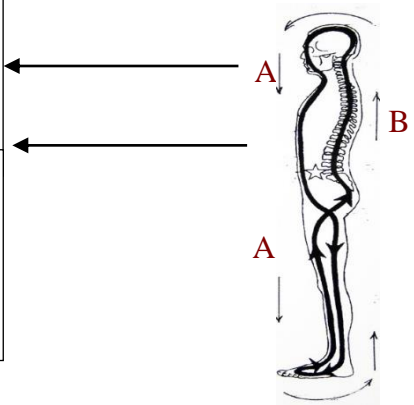


Fig. 1. The energy circulation through the body

The magnetic meridian (A) "of operation" and the magnetic "ruling" meridian (B) are interconnected, forming a large circle around the body, which is called the median magnetic line. The meridians are interconnected by organs and stretch to the skin at the surface of the body, forming an electrical network through which energy circulates throughout the body to feed the blood and treat the disease [4, p. 418-420]. The hotbed of internal energy is the point of actions concentration and feelings of being at the height of the situation at some point during a valuable sports activity.

The cellular specific biological processes produce an electrical tension of millivolts order. This tension tries locally the electric modeller capacity, which is discharging the electric resistance of this model, the phenomenon representing virtually sports life. The modeller electrical charge and discharge produces a bio-electro-magnetic field [5, 7, 8]. Depending on time, the values of the magnetic field of the body transpose themselves [16]. For this reason the teacher-coach is obliged to know the transmission of electromagnetic information of the body suffering from permanent varieties from day to day, from month to month, from year to year through interaction with the magnetic components of the electromagnetic fields, depending on the

year of birth [3, 5]. According to Guja C. (2000) there is a series of correlations between biorhythms and athlete's performances [5, p.194]. This element presents a great importance in training program in the course of a day [5, p.194].

Solving the organizing problems of training and sports competitions requires the analysis of the troubling situation and aims at identifying them as a "deviation" of the magnetic field, the "energetic potentials of the athlete" during low levels of the magnetic field and "optimization" problems of application "correct decision" for participation in competitions in line with the maximal qualitative quantum values of the magnetic component.

The greatest influence of the electromagnetic field is manifested at the age of youth (20-21 years), the maximum value of the magnetic component being in the average from 2,769 to 2,998 units. Low values at level of - 0.116 and - 0.126 are observed at age 8 and 18 years [6, p.304 - 306].

In the paper are discussed problematic situations of athlete's energy potential in the competition process, the cause that produces deviation from the expected natural course of sports results.



The purpose of postulates consists in sources use of energy at maximum capacity within a rational competitive system.

The objectives of research. 1. Knowledge of magnetic field influence on sports performance. 2. Determination of the compatibility between the level of sports performance and the magnetic components indicators of the athletes. 3. Identify of some effective strategies for optimizing sports performances and relationships between the electromagnetic field in order to develop a proper motivation for participation in the competition.

The conceptual and methodological approach of research

The approach of the research problem has been imposed on us by the major importance that it has shown in sports practice, especially in the idea of qualitative improvement of the training and competition system in accordance with bio-psycho-electromagnetic phenomena.

The research was carried out at the Sports School of Olympic Reserves, Chisinau, between 2017-2018 with 140 athletes, consisting of 29 fighters of the first category, 25 of the second category, 86 of the third

category and 60 boxers of the first and third category, starting from 2000-2006, athletes aged 12-18, in Judo, Wrestling, Free Wrestling and Boxing fights, at the stage of incipient training, II year, at the stage of advanced training, the III, IV and V years and at the sports mastery stage.

There were registered the places I-X obtained at different National and International competitions and the qualitative value of the magnetic component of the athletes according to the characteristics of the year of birth. During the research they used the method of pedagogical observation through the criterion analysis with the determination of the sports performances in competitive conditions and the study of the Sports School documentation, requesting maximum attention if deviations from the obtained result and the energy are admitted, by the method of analysis of energetic potential problems of the athletes. The obtained data are presented in Table 1 and Figure 2. In the research of the obtained data the general hypothesis was put forward that the weight of some factors of the magnetic component of the athletes influences the dynamics of the sports results.

Table 1. The value of magnetic component of the fighters aged 12- 18 depending on time and the results obtained in solving competitive complex tasks

No.	Age (years)	Year of birth	η	Obtained ranking	Σ Of rankings	\bar{X} Obtained ranking	The scale of values of the places	The value of the magnetic field	The scale of values of the magnetic field
1	18	2000	19	III-X	83	4,37	IV	- 0,116	VII
2	17	2001	26	I-VI	79	3,04	III	1,084	III
3	16	2002	22	I-IV	49	2,23	I	1,831	I
4	15	2003	17	I-V	51	3,0	II	1,396	II
5	14	2004	21	III-VII	95	4,52	V	0,633	IV
6	13	2005	16	III-X	91	5,69	VII	0,144	VI
7	12	2006	19	I-VII	87	4,58	VI	0,522	V



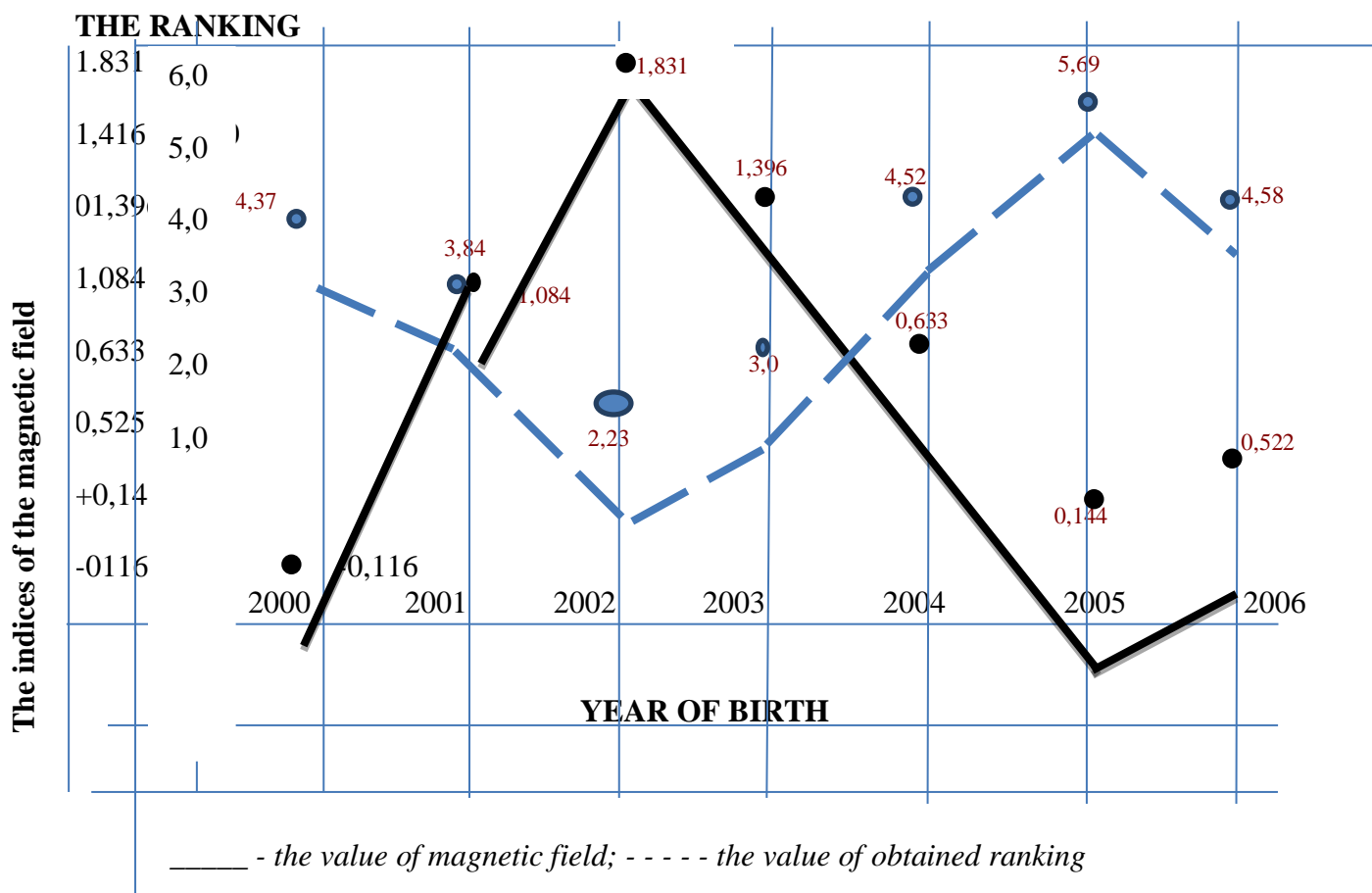


Fig. 2. The distribution of the results obtained by fighters and boxers and the influence indices value of magnetic field on sports performance

The average values of the results obtained in the observed experimental study shows us that at the athletes aged of 12-14 is observed the decrease of the sports performances and the decrease of the energetic value of the radiant electromagnetic field up to 0.144 and 0.633 indices that produce essential changes in the body and an increased plasticity of structure of the central nervous system, which participates in many chemical reactions inside of the cells of the organism [G. Guja, 2000]. The scale of values of performance obtained at National and International competitions varies between places V-VII (Table 1).

The same value was obtained in rhythmic gymnastics.

The situation of 18-year-old athletes is repeated with a low value of the magnetic field up to - 0,116 indices, obtaining III - X places, averaging the ranking of 4,37. In the period of decreasing frequency of electromagnetic value, the physical and psycho-functional yield in sport competitions is lower. During these risk periods of time, sets of strategic tasks, didactic content and productive methodologies will be planned in relation to psycho-pedagogical and functional objectives of training and competitive.

Athletes' performances reach the average quantum of magnetic' field quality of 1,396-1,831 indices at the age of 15-17. During these bio-electromagnetic rhythms there are

important variations in the functions of the organism, in order to conduct the competitive yield, the scale of value of the obtained places

is I and II, observed in 74 cases, which constitutes 52.86%.

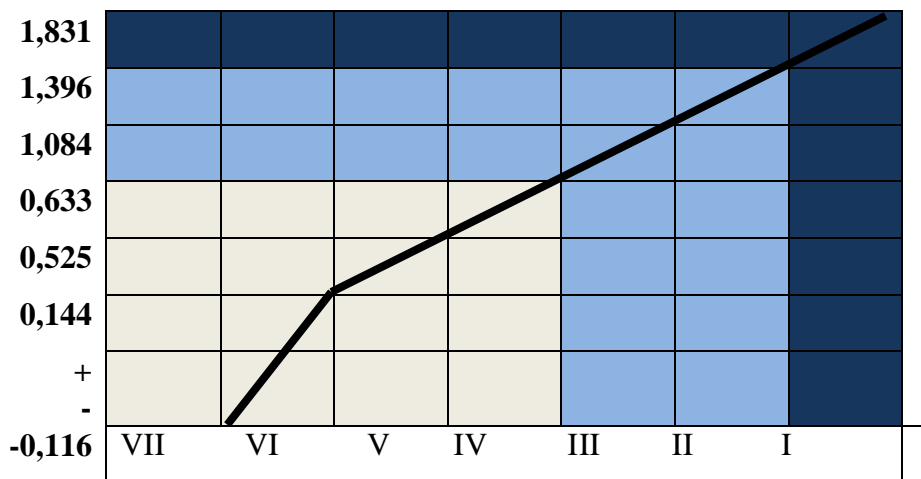


Fig. 3. The graphical representation of the link polygon between the values of the obtained performances and the characteristics of the magnetic field of the athletes

It is easily finding that the frequency polygons of Figures 2 and 3 suggests the hypothesis of a normal distribution of the results obtained by the athletes and the value of the magnetic field influence indices on the sports performances. We note that the evaluation of the results obtained by the subjects was carried out by external evaluators based on scales rigorous elaborated and approached in the arbitration regulation of the sports fights competitions and boxing competitions.

The comparison of the obtained results on the value scale of the places destined in the competitions with the qualitative values of the magnetic field represents a compatibility of the relational postulates in solving the complex, difficult tasks being under the conditions of competition.

The graphical representation of the link polygon between the performances values obtained and the characteristics of the magnetic field of the athlete shown in Figure 3

demonstrates that the sports performances depend on the value of magnetic quantum of influence to which the athletes are subjected.

Also, the research highlights the fact that athletes who are considered less valued with magnetic field, experience real difficulties in sports performances.

We mention the fact that a greater approach between the averages of the places obtained by the subjects (I, II and III) provides the average and maximum values of the magnetic field at the age of 20 related to shape change and bio-psycho-electromagnetic concentration.

The value of the study reflected in the paper is demonstrated by the successes achieved by the athletes: Gutu Alexandru (16 years) - 1st place at the European Championship for cadets, Belgrade, 1st place at Balkan Championship, Sarajevo, 1st place at the World Championship for cadets, Zagreb, electromagnetic charge - 1,831 units; Grosul Andrian, 20 years, 2nd place at Youth

European Wrestling Championship, Rome, electromagnetic charge - 2,769 units; Bunici Vitalie, 21 years, 2nd place – at European U 23 Istanbul, electromagnetic charge - 2,998 etc.

Conclusions and intervention strategies:

1. The study of literature in the field of performance sports and bio-psycho-electromagnetic has demonstrated that specific programs of training within a competitive rational system are not published works with an adequate methodological content depending on the characteristics of the athlete magnetic component.

2. The researches of the finding experiment confirmed the role of the magnetic field on the results obtained by the subjects. The value of the magnetic field of small intensity (- 0,116 - 0,633) produces sensations of physical, functional and psychological deficiency, shrinks the degree of difficulty of the competitive task and the effects of their covariance on the level of sports performance.

3. The comparison of the differences found between the results obtained in the two experimental conditions, was determined the compatibility between the level of the sports

training and the magnetic field indices of the bio-psycho-electromagnetic energy.

4. In the diagnosis of sports performances and phenomena of transformation of the bio-electromagnetic form, and the prognosis of efficient magnetic load intervention strategies must be manifested with prudence and scientific discernment, and the derived conclusions and suggested directions of action must be still verified and adapted depending on the specific competitive context.

5. At the same time, were demonstrated the methods of the negative spectrum of the body's electromagnetic field reflecting sensations of physical, functional, mental and intellectual deficiency, also the self-denying of the grace exterior, the unfavourable educational ambitions, the identification of inadequate behavior and conduct, the cliché language spoken in the presence of the team, last but not least, previous experience - accidents, stress, aggression, failure in competitions.

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