

Research Journal of Pharmaceutical, Biological and Chemical Sciences

Psychological And Emotional Characteristics Of Paralympic Athletes

Makhov AS*.

Russian State Social University, st. V. Pika, 4, Moscow, Russia, 129226

ABSTRACT

The article presents the results of an initial study of the features of the psychological and psychoemotional states of Paralympic athletes who most often arise in their professional activities. Specially developed two author questionnaires were used to identify the main features of working with Paralympic athletes (a questionnaire for coaches) and the psychological and psycho-emotional states of athletes themselves during the competition and during the preparation for them. The contingent of test subjects: 18 Paralympic athletes from the Russian national athletics team and 10 coaches working with these athletes took part in the study. The study was conducted in April 2016 in the city of Sochi at a training camp in preparation for the summer Paralympic Games in Rio de Janeiro. As a result of the study, it was revealed that most of the examined Paralympic athletes experience a state of alert before the start, and the internal psychological readiness for competitive actions is also expressed in the correct sense of the current level of skill for most of the subjects. It was established that athletes who are prone to an accurate assessment of their emotional states, have a negative attitude towards training in a state of fatigue and tend to stop training themselves in accordance with their state of health. Most coaches are exactly the same to their more or less capable students. However, 30% of coaches pay more attention to those who are capable, and it is they who negatively relate to the poor results of their players.

Keywords: psychological characteristics, psycho-emotional state, Paralympic athletes, competitions, training activities, physical rehabilitation.

**Corresponding author*

INTRODUCTION

The close relationship between the nervous system and the somatic structures of the body has been noticed for a long time [1-5]. This is due to the fact that, being the most important regulator of the whole organism [6,7], the nervous system determines the level of metabolism [8-12], the activity of synthesis of various hormones [13,14] and biologically active substances [15-20]. This is true in the conditions of the norm and in the development of any pathology in the body [21-23]. Being the most important manifestation of the activity of the central nervous system, mental activity needs to be studied in detail in terms of its possible influence on the parameters of the body by changing the psychological attitude [24-30]. These approaches are actively used in various spheres of human activity [31-32]. It is also used in sports and is particularly productive with Paralympians [33-38].

At present, it is becoming clear that in the modern world the opportunity to play sports is often an important way of psycho-social and physical rehabilitation of people with disabilities [39-43]. Sports achievements, teamwork, the ability to travel to competitions contribute to the successful integration of people with disabilities into society [44,45]. At the same time, the reverse impact of Paralympic athletes on society, their role in overcoming the public stereotype of perceiving a "disabled person as a flawed person" [46,47] should not be underestimated.

Modern science has recently paid increasing attention to the problems of Paralympic sports and the training of Paralympic athletes [48-50]. However, until now, there is insufficient data on the peculiarities of the psychological training of athletes of this class, which limits the work opportunities of sports psychologists participating in the training of Paralympians. In this regard, the goal was set in the work: to consider the psychological and psycho-emotional characteristics of Paralympic athletes.

MATERIALS AND METHODS

The study was approved by the local ethics committee of the Russian State Social University on September 15, 2015 (protocol №9).

The study involved 18 Paralympic athletes from the Russian national athletics team, representatives of such sports disciplines as: long jump, shot put and javelin throw. Of these, 15 athletes with a lesion of the musculoskeletal system (PODA) and 3 athletes with intellectual disabilities (LIN). The study also involved 10 coaches working with these athletes. The study was conducted in April 2016 in the city of Sochi at a training camp in preparation for the summer Paralympic Games in Rio de Janeiro. For the study, two special questionnaires were developed aimed at identifying the main features of working with high-class Paralympic athletes (a questionnaire for coaches) and the characteristics of the psychological and psycho-emotional states of the athletes themselves during competitions and during preparation for them. The obtained data were first processed using descriptive (descriptive) statistics, and then subjected to correlation analysis (Spearman's coefficient r).

RESULTS AND ITS DISCUSSION

The study made it possible to establish that the majority of the Paralympic athletes surveyed (83.3%) experience a state of alert before the start, which is closely related to the lack of prelaunch fever, apathy and fear of rivals ($r = -0.542$, $p = 0.02$). This fact suggests that the psycho-emotional state of alert before the start is important for the success of the Paralympic athlete, therefore, one of the tasks of the coach and sports psychologist working with Paralympians should be the formation and actualization of this state in their athletes.

Internal psychological readiness for competitive actions in 88.9% of the surveyed is expressed in the correct sense of the current level of skill. According to our data, it is this feeling that affects the absence of prelaunch apathy and fear of rivals ($r = -0.686$, $p = 0.002$). Accordingly, the formation of the correct feeling of the current level of skill is an important factor in the success of the Paralympic athlete.

The accuracy of assessing one's excitement and other emotional states during a competition is also related to prelaunch fever, apathy and fear of rivals ($r = 0.542$, $p = 0.02$). The more often an athlete tries to

accurately assess the degree of his excitement, the more he is subject to the above emotional conditions, and the lower his combat readiness ($r = -0.791$, $p = 0.002$). Athletes who usually do not think about assessing their excitement, less likely to experience similar problems. In this regard, it is possible to recommend to sports psychologists not to focus the attention of athletes on the evaluation of their emotions during competitions.

It can also be noted that athletes who are prone to accurate assessment of their emotional states negatively relate to training in a state of fatigue ($r = -0.670$, $p = 0.002$) and tend to stop training themselves in accordance with their well-being ($r = 0.561$, $p = 0.016$). At the same time, the majority of successful athletes from the surveyed group (77.8%) have a positive attitude to training in a state of fatigue, because, in their opinion, it forms volitional qualities (note that some researchers also believe that performing tasks in a state of fatigue contributes to the development of mental stability and self-control [51-57]).

The success of performances at important competitions in the examined group is equally related to the state of increased arousal (50%) and the absence of any excitement (50%), which is probably related to the individual and personal characteristics of the respondents.

All athletes from the surveyed group treat defeats in competitions differently. 27.8% of respondents get very upset because of defeats, do not attach much importance to this - 22.2%, they quickly forget - 11.1%. The majority (38.9%) are worried because of defeats, depending on how strong the opponent is to whom they have lost. The stronger the opponent, the less frustrated by the defeat. An interesting fact is that these athletes usually play sports exclusively to achieve sports results ($r = 0.523$, $p = 0.026$). Probably, for them it is an objective assessment of their own sports capabilities and the capabilities of an opponent is an important factor in psychological protection as a result of defeat.

It should be noted that the majority of successful Paralympic athletes belong to a group of people who are affected by the presence of other spectators, including during training. Thus, 50% of the subjects do not experience any discomfort with outside observers, 33.3% experience mild anxiety, which, as a rule, stimulates them to successfully complete the exercises, and 16.7% feel at outsiders much more comfortable. It seems to us that for the success of Paralympic athletes this feature is very important. People with disabilities, as a rule, have a very negative attitude towards increased attention from others. At the same time, sports activities imply a high degree of publicity, deliberate attraction of attention to themselves. The ability to perform tasks in the presence of outside observers during training, of course, is the key to successful performance at competitions [57-62], which is confirmed by the results of the study.

We will separately consider the question of the special application of confounding factors in the performance of tasks in the process of training. Half of the respondents considered them necessary because it allows them to improve concentration and self-control, 44%, on the contrary, consider them harmful because it distracts from the correct exercise, the other survey participants found it difficult to answer this question. Since we did not reveal significant correlations with other issues, it can be assumed that the main influence on the attitude to the use of confounding factors in training exercises is exerted by individual personal characteristics and, possibly, the personal experience of an athlete.

All athletes in the surveyed group consider their sporting achievements to be an achievement, while half of them regard success as a high result, and half as an ordinary (ordinary) achievement. We also note that in the event of poor results at the end of the competition, 83.3% of the respondents experience an awareness of their mistakes and their further prevention. With the other indicators of our study, the data presented above are in no way connected, which makes it possible to make an assumption about the insignificant effect of such a difference in assessing one's own achievements and mistakes on the success of an athlete.

The main motive for doing sports with successful Paralympic athletes is the development of themselves as individuals (50%), in second place is sport for the sake of sporting achievements (33.3%). This data can be used both for the purpose of diagnosing novice athletes, and when developing motivation programs.

Interesting is the fact that 61.1 per cent of athletes surveyed sample have a positive attitude to fatigue, pain and discomfort that often accompany their training activities, which corresponds to estimates of the importance of this factor [63-68]. In addition, our study revealed that positive attitude towards the fatigue

associated with the adoption of the injury as adequate ($r = 0.523$ accordingly $p = 0,026$) and confidence in the positive impact of career on future ($r = 0.523$ accordingly $p = 0,026$). Note also that such athletes usually play sports just for the achievement of sports results ($r = 0,495$, $p = 0,037$). It is possible that these factors generally provide the ability of an athlete to overcome difficulties, pain, to endure trauma for the sake of a conscious choice aimed at the sporting achievements that are considered as the Foundation of a successful future and subsequent good health [69,70].

Consider separately the issue of injury to a Paralympic athlete during sports. You can consider this injury as a “secondary” disability [71,72] and attach great importance to the ability to recognize and prevent it in time. According to the results of our study, 77.2% of successful athletes understand the injury for granted in their activities, which can not but cause some concern. Taking the injury for granted is strongly interrelated with the willingness to give up many life benefits for the sake of high achievements ($r = 0.564$ $p = 0.015$). In this regard, it is of paramount importance for us to teach paralympic sportsmen how to manage pain, avoid injuries and overtraining.

Now we will briefly review the results obtained as a result of questioning coaches working with Paralympic athletes. Here the main emphasis was placed on the psychological problems arising from the trainers themselves in the process.

Most coaches (70%) exactly the same applies to their more or less able pupils. However, still 30% of the coaches pay more attention to the able, while they also are opposed to the poor results of their wards ($r = 0,667$, $p = 0,035$). Also, the majority of coaches (60%) has been deeply affected by the departure of his disciples to another coach, and only 30% react calmly, about 10% of the respondents, such cases were not. 60% of coaches completely calmly react to such typical features Paralympic athletes as the resentment and mistrust, show understanding and desire to help, however 20% of the coaches demonstrate a response of anger and resentment, and 20% ignore such manifestations. Attitude to losses and poor results of their wards, the majority of coaches (60%) also calm, aimed at awareness and prevention of such errors. 30% of trainers assess bad results depending on the level of the opponents. Thus, as the main psychological problems encountered by coaches when working with athletes with Paralympic national team of Russia, in our view, are the following: the ability to properly respond to the resentment and mistrust of athletes, understanding and the desire to reduce these negative aspects to a minimum, greater attention to the more gifted students, assessment of the successes and failures of their wards, depending on the level of the opponents. Similar problems have coaches working with athletes with Paralympic athletes have been observed by other researchers [73-75].

It was found that 80% of the interviewed coaches emphasized the importance of psychological support for Paralympic athletes throughout their professional activities, including during the training process, competitive activity, when receiving injuries and at the end of a sports career [76-78].

CONCLUSION

For a number of successful Paralympic athletes, an important factor in psychological defense as a result of a defeat is an objective assessment of their own athletic potential and results, compared to a rival. Most successful Paralympic athletes are motivated to engage in sports with the possibility of personal self-realization and increased athletic performance. On this and the need to focus. The ability of Paralympic athletes to overcome difficulties, pain, and injuries may be associated with an awareness of the need for sporting achievements today, for a successful future. Of particular importance, in our opinion, is learning the techniques of pain management, injury prevention and overtraining, since most of the successful athletes take injuries for granted and are ready to give up a lot for the sake of sporting achievements. Such an approach can lead to serious additional physical and mental health problems. When working with a sports psychologist with coaches, it is important to focus on such psychological problems as the ability to properly respond to the sensibility and suspiciousness of athletes, the adequacy of assessing their successes and failures, and showing more attention to capable students.

REFERENCES

- [1] Bikbulatova AA, Andreeva EG. (2018) Restoration Of The Profile Of Bioregulators Of Blood Plasma In People Of Second Adulthood With Osteochondrosis Of The Spine Against The Background Of Daily Wearing Of Medical And Preventive Clothing. *Research Journal of Pharmaceutical, Biological and Chemical Sciences*. 9(4) : 413-419.
- [2] Medvedev IN. (2018) Disaggregation Control Of Blood Vessels Over The Activity Of Platelets In Patients With Type 2 Diabetes Mellitus. *Research Journal of Pharmaceutical, Biological and Chemical Sciences*. 9(4) :792-797.
- [3] Bikbulatova AA, Andreeva EG. (2018) Achievement of psychological comfort in 5-6-Year-Old children with scoliosis against the background of daily medicinal-prophylactic clothes' wearing for half a year. *Bali Medical Journal*. 7(3): 706-711. DOI:10.15562/bmj.v7i3.947.
- [4] Medvedev IN, Danilenko OA. (2010) Complex correction of vascular hemostasis in patients with arterial hypertension, metabolic syndrome, and recent ocular vessel occlusion. *Russian Journal of Cardiology*. 4 : 15-19.
- [5] Medvedev IN, Mezentseva IN, Tolmachev VV. (2007) ACE inhibitors potential in correcting vessel wall anti-aggregation activity among patients with arterial hypertension and metabolic syndrome. *Russian Journal of Cardiology*. 1 : 48-52.
- [6] Medvedev IN, Kumova TA. (2007) Comparison of platelet hemostasis effects for angiotensin receptor blockers in patients with arterial hypertension and metabolic syndrome. *Russian Journal of Cardiology*. 4 : 52-56.
- [7] Makhova AV. (2018) Physiology Of The Hypothalamus In The Human Body. *Research Journal of Pharmaceutical, Biological and Chemical Sciences*. 9(5) : 478-484.
- [8] Mal GS, Kharitonov EL, Vorobyeva NV, Makhova AV, Medvedev IN. (2018) Functional Aspects Of Body Resistance. *Research Journal of Pharmaceutical, Biological and Chemical Sciences*. 9(6) : 60-65 .
- [9] Zavalishina SYu. (2018) Functional Activity Of Anticoagulant System In Calves During Early Ontogeny. *Research Journal of Pharmaceutical, Biological and Chemical Sciences*. 9(5) : 837-843.
- [10] Zavalishina SYu. (2018) Functional Properties Of Fibrinolysis In Calves Of The First Year Of Life. *Research Journal of Pharmaceutical, Biological and Chemical Sciences*. 9(5) : 870-876.
- [11] Zavalishina SYu. (2018) Physiological Features Of Coagulation In Calves Of Plant Nutrition. *Research Journal of Pharmaceutical, Biological and Chemical Sciences*. 9(5) : 899-904.
- [12] Medvedev IN, Kumova TA. (2008) Eprosartan effects on intravascular platelet activity in patients with arterial hypertension and metabolic syndrome. *Russian Journal of Cardiology*. №1(69) : 40-42.
- [13] Medvedev IN, Amelina IV. (2009) AG polymorphism as a cytogenetic maker of arterial hypertension risk. *Russian Journal of Cardiology*. 2(76) : 70-72.
- [14] Medvedev IN, Danilenko OA. (2010) Comparative effects of therapeutic complexes on vascular wall activity in patients with arterial hypertension, metabolic syndrome, and recent ocular vessel occlusion. *Cardiovascular therapy and prevention*. 9(7) : 27-32.
- [15] Zavalishina SYu, Makurina ON, Vorobyeva NV, Mal GS, Glagoleva TI. (2018) Physiological Features Of Surface Properties Of The Erythrocyte Membrane In Newborn Piglets. *Research Journal of Pharmaceutical, Biological and Chemical Sciences*. 9(4):34-38.
- [16] Medvedev IN. (2018) Severity Of Depression Of Vascular Disaggregation Effects On Neutrophils In Patients With Type 2 Diabetes Mellitus. *Research Journal of Pharmaceutical, Biological and Chemical Sciences*. 9(4) :837-842.
- [17] Medvedev IN. (2018) Influence Of Disaggregation Effects Of Blood Vessels On Erythrocytes In Patients With Impaired Glucose Tolerance And Abdominal Obesity. *Research Journal of Pharmaceutical, Biological and Chemical Sciences*. 2018; 9(4) :906-911 .
- [18] Medvedev IN, Gamolina OV. (2008) Lisinopril effects on platelet activity in patients with arterial hypertension and impaired glucose tolerance. *Russian Journal of Cardiology*. 3 : 45-48.
- [19] Bikbulatova AA. (2018) Bioregulatory Effects Of The Daily Wearing Of Medical And Preventive Pants On The Body Of Pregnant Women Suffering From Habitual Miscarriages Of The Fetus. *Research Journal of Pharmaceutical, Biological and Chemical Sciences*. 9(4) : 889-896.
- [20] Bikbulatova AA, Karplyuk AV. (2018) Professional And Labor Orientation Of Persons With Disabilities In The Resource Educational And Methodological Center Of The Russian State Social University. *Research Journal of Pharmaceutical, Biological and Chemical Sciences*. 9(4) : 1648-1655.
- [21] Zavalishina SYu. (2018) Functional Activity Of Thrombocytes In Newborn Calves. *Research Journal of Pharmaceutical, Biological and Chemical Sciences*. 9(5) : 919-924.

- [22] Zavalishina SYu. (2018) Functioning Of Platelets In Milk And Vegetable Nutrition Calves. Research Journal of Pharmaceutical, Biological and Chemical Sciences. 9(5) : 943-949.
- [23] Zavalishina SYu. (2018) Deficiency Of Iron As A Cause Of Dysfunction In Calves And Piglets. Research Journal of Pharmaceutical, Biological and Chemical Sciences. 9(5) : 978-983.
- [24] Zavalishina SYu. (2018) Functional Properties Of Hemocoagulation In Calves Of Dairy Nutrition. Research Journal of Pharmaceutical, Biological and Chemical Sciences. 9(5) :1016-1022.
- [25] Medvedev IN, Nosova TYu. (2007) Verospiron effects on platelet aggregation in patients with arterial hypertension and abdominal obesity. Russian Journal of Cardiology. 6 : 55-58.
- [26] Medvedev IN, Kumova TA. (2007) Valsartan effects on platelet activity in patients with arterial hypertension and metabolic syndrome. Russian Journal of Cardiology. 3 : 66-69.
- [27] Medvedev IN, Kumova TA. (2007) Angiotensin II receptor inhibitors: role and place in arterial hypertension and metabolic syndrome treatment. Russian Journal of Cardiology. 5 : 97-99.
- [28] Medvedev IN. (2007) A comparative analysis of normodipin and spirapril effects on intravascular activity of platelets in patients with metabolic syndrome. Terapevticheskii Arkhiv. 79(10) : 25-27.
- [29] Zavalishina SYu. (2018) Physiology Of Vascular Hemostasis In Newborn Calves. Research Journal of Pharmaceutical, Biological and Chemical Sciences. 9(5) : 1037-1044.
- [30] Zavalishina SYu. (2018) Functional Properties Of Anticoagulation And Fibrinolysis In Calves Of Plant Nutrition. Research Journal of Pharmaceutical, Biological and Chemical Sciences. 9(5) : 1082-1087.
- [31] Mal GS, Vorobyeva NV, Makhova AV, Medvedev IN, Fayzullina II. (2018) Features Of Physical Rehabilitation After Myocardial Infarction. Research Journal of Pharmaceutical, Biological and Chemical Sciences. 9(6) : 280-285.
- [32] Bikbulatova AA, Karplyuk AA, Parshin GN, Dzhafar-Zade DA, Serebryakov AG. (2018) Technique for Measuring Vocational Interests and Inclinations in High-School Students with Disabilities. Psikhologicheskaya nauka i obrazovanie-psychological science and education. 23(2) : 50-58.doi: 10.17759/pse.2018230206.
- [33] Medvedev IN. (2018) The Degree Of Weakening Of Disaggregation Control Of Blood Vessels Over Platelets In Abdominal Obesity And Dyslipidemia. Research Journal of Pharmaceutical, Biological and Chemical Sciences. 9(4) :1022-1028.
- [34] Medvedev IN. (2018) The Level Of Disaggregation Control Of Blood Vessels Over Neutrophils In Patients With Abdominal Obesity And Dyslipidemia. Research Journal of Pharmaceutical, Biological and Chemical Sciences. 9(4) :1082-1087.
- [35] Medvedev IN. (2018) Possibilities Of Combined Therapy In Relation To Disaggregation Parameters Of Blood Vessels In Patients With Metabolic Syndrome With A High Degree Of Arterial Hypertension. Research Journal of Pharmaceutical, Biological and Chemical Sciences. 9(4) :1122-1134.
- [36] Medvedev IN. (2018) Antiaggregatory Characteristics Of Blood Vessels In Relation To Platelets In Patients With Impaired Glucose Tolerance And Abdominal Obesity. Research Journal of Pharmaceutical, Biological and Chemical Sciences. 9(4) :1163-1169.
- [37] Medvedev IN. (2018) Severity Of Vascular Disaggregation Control Over Neutrophils In Patients With Impaired Glucose Tolerance And Abdominal Obesity. Research Journal of Pharmaceutical, Biological and Chemical Sciences. 9(4) :1215-1220.
- [38] Alifirov AI, Mikhaylova IV, Fomina SN, Fedchuk DV, Bakulina ED. (2018) The Development Of Intellectual Features Of Students Using A Chess Game. Research Journal of Pharmaceutical, Biological and Chemical Sciences. 9(6) : 106-112.
- [39] Medvedev IN. (2018) Anti-aggregation Capacity Of Blood Vessels In Relation To Platelets In Patients With Impaired Glucose Tolerance. Research Journal of Pharmaceutical, Biological and Chemical Sciences. 9(4) :1288-1294.
- [40] Maksimov VI, Zavalishina SYu, Parakhnevich AV, Klimova EN, Garbart NA, Zabolotnaya AA, Kovalev Yul, Nikiforova TYu, Sizoreva EI. (2018) Physiological Dynamics Of Microrheological Characteristics Of Erythrocytes In Piglets During The Phase Of Milk Nutrition. Research Journal of Pharmaceutical, Biological and Chemical Sciences. 9(5) : 454-459.
- [41] Tkacheva ES, Zavalishina SYu. (2018) Physiological Features Of Platelet Aggregation In Newborn Piglets. Research Journal of Pharmaceutical, Biological and Chemical Sciences. 9(5) : 36-42.
- [42] Tkacheva ES, Zavalishina SYu. (2018) Physiology Of Platelet Hemostasis In Piglets During The Phase Of Newborns. Research Journal of Pharmaceutical, Biological and Chemical Sciences. 9(5) : 1912-1918.

- [43] Skoryatina IA, Zavalishina SYu. (2017) Ability to aggregation of basic regular blood elements of patients with hypertension and dyslipidemia receiving non-medication and simvastatin. *Bali Medical Journal*. 6(3):514-520. DOI:10.15562/bmj.v6i3.553.
- [44] Skorjatina IA (2018) Therapeutic Possibilities Of Rosuvastatin In The Medical Complex In Relation To Disaggregation Vascular Control Over Erythrocytes In Persons With Arterial Hypertension And Dyslipidemia. *Research Journal of Pharmaceutical, Biological and Chemical Sciences*. 9(2) : 977-983.
- [45] Zavalishina SYu. (2018) Functional Antiaggregatory Properties Of Blood Vessels In Calves During Transition From Dairy To Plant Type Of Nutrition. *Research Journal of Pharmaceutical, Biological and Chemical Sciences*. 9(5) : 1110-1116.
- [46] Zavalishina SYu. (2018) Physiological Features Of Vascular Hemostasis In Calves Of Dairy-Vegetative Food. *Research Journal of Pharmaceutical, Biological and Chemical Sciences*. 9(5) : 1137-1143.
- [47] Medvedev IN. (2018) Vascular Antiaggregatory Effects Of Blood Vessels On Erythrocytes In Patients With Impaired Glucose Tolerance. *Research Journal of Pharmaceutical, Biological and Chemical Sciences*. 9(4) :1270-1275.
- [48] Bikbulatova AA. (2018) Peculiarities of abnormalities of locomotor apparatus of children at preschool age with scoliosis of I-II degree living in Central Russia. *Bali Medical Journal*. 7(3): 693-697. DOI:10.15562/bmj.v7i3.738.
- [49] Bikbulatova AA, Pochinok NB, Matraeva LV, Erokhin SG, Makeeva DR, Karplyuk AV. (2018) The Russian Historical Aspect Of The Development Of The International Federation Of Abilimpix. *Research Journal of Pharmaceutical, Biological and Chemical Sciences*. 9(5) :329-335.
- [50] Bikbulatova AA, Karplyuk AV, Medvedev IN. (2018) Methodical Bases Of The Help To Young Invalids In A Choice Of Sphere Of Their Future Professional Activity. *Research Journal of Pharmaceutical, Biological and Chemical Sciences*. 9(4) : 571-577.
- [51] Bikbulatova AA, Karplyuk AV, Medvedev IN. (2018) The Problem Of Vocational Guidance Work With Young People, Who Have Limited Health Opportunities In Modern Russia. *Research Journal of Pharmaceutical, Biological and Chemical Sciences*. 9(4) : 586-590.
- [52] Medvedev IN, Savchenko AP, Zavalishina SYu, Krasnova EG, Kumova TA, Gamolina OV, Skoryatina IA, Fadeeva TS. (2009) Methodology of blood rheology assessment in various clinical situations. *Russian Journal of Cardiology*. 5 : 42-45.
- [53] Medvedev IN, Kumova TA. (2008) Reduced platelet aggregation in losartan-treated patients with arterial hypertension and metabolic syndrome. *Russian Journal of Cardiology*. 5 : 53-55.
- [54] Amelina IV, Medvedev IN. (2008) Evaluation of the dependence of mutagenesis intensity on activity of nucleolus organizer regions of chromosomes in aboriginal population of Kursk region. *Bulletin of Experimental Biology and Medicine*. 145(1) : 68-71.
- [55] Medvedev IN, Lapshina EV, Zavalishina SYu. (2010) Experimental methods for clinical practice: Activity of platelet hemostasis in children with spinal deformities. *Bulletin of Experimental Biology and Medicine*. 149(5) : 645-646.
- [56] Medvedev IN, Plotnikov AV, Kumova TA. (2008) Rapid normalization of platelet hemostasis in patients with arterial hypertension and metabolic syndrome. *Russian Journal of Cardiology*. 2 : 43-46.
- [57] Glagoleva TI, Medvedev IN. (2018) Physiological Features Of Anti-aggregational Control Of Blood Vessels Over The Shaped Elements Of Blood In Calves At The Onset Of Ontogenesis. *Research Journal of Pharmaceutical, Biological and Chemical Sciences*. 9(5) : 440-447.
- [58] Medvedev IN. (2018) Activity Of Platelet Aggregation In Patients With Impaired Glucose Tolerance And Abdominal Obesity. *Research Journal of Pharmaceutical, Biological and Chemical Sciences*. 9(5) : 2183-2188.
- [59] Bikbulatova AA, Pochinok NB, Soldatov AA, Matraeva LV, Erokhin SG. (2018) Organization Of International Competitions Of Professional Skill Among People With Disabilities. *Research Journal of Pharmaceutical, Biological and Chemical Sciences*. 9(5) : 379-387.
- [60] Bikbulatova AA, Matraeva LV, Erokhin SG, Makeeva DR, Karplyuk AV. (2018) Methodical Foundations Of Carrying Out Competitions Of Professional Skill Among People With Disabilities. *Research Journal of Pharmaceutical, Biological and Chemical Sciences*. 9(5) : 243-247.
- [61] Bikbulatova AA, Pochinok NB, Matraeva LV, Erokhin SG, Makeeva DR, Karplyuk AV. (2018) Formation Of International Practice Of Holding Competitions Of Professional Skills Among Professionals With Disabilities. *Research Journal of Pharmaceutical, Biological and Chemical Sciences*. 9(5) : 296-302.
- [62] Medvedev IN. (2018) Severity Of Aggregation By Neutrophils In Patients With Impaired Glucose Tolerance And Abdominal Obesity. *Research Journal of Pharmaceutical, Biological and Chemical Sciences*. 9(5) : 2194-2199.

- [63] Zavalishina SYu. (2018) Functional Features Of Platelets In Newborn Calves With Iron Deficiency. Research Journal of Pharmaceutical, Biological and Chemical Sciences. 9(5) : 1153-1158.
- [64] Medvedev IN. (2018) Features Of Erythrocyte Aggregation In Patients With Impaired Glucose Tolerance. Research Journal of Pharmaceutical, Biological and Chemical Sciences. 9(5) :2210-2215.
- [65] Medvedev IN. (2018) Aggregation Of Platelets In Patients With Impaired Glucose Tolerance. Research Journal of Pharmaceutical, Biological and Chemical Sciences. 9(5) : 2226-2231.
- [66] Zavalishina SYu. (2018) Functional Activity Of Plasma Hemostasis In Neonatal Calves With Iron Deficiency, Who Received Ferroglucin And Glycopin. Research Journal of Pharmaceutical, Biological and Chemical Sciences. 9(5) : 1186-1191.
- [67] Zavalishina SYu. (2018) Functional Properties Of Fibrinolysis In Calves Of The First Year Of Life. Research Journal of Pharmaceutical, Biological and Chemical Sciences. 9(5) : 870-876.
- [68] Maksimov VI, Zavalishina SYu, Parakhnevich AV, Klimova EN, Garbart NA, Zabolotnaya AA, Kovalev Yul, Nikiforova TYu, Sizoreva EI. (2018) Functional Activity Of The Blood Coagulation System Against The Background Of The Influence Of Krezacin And Gamavit In Newborn Piglets Who Underwent Acute Hypoxia. Research Journal of Pharmaceutical, Biological and Chemical Sciences. 9(5) : 2037-2042.
- [69] Tkacheva ES, Zavalishina SYu. (2018) Physiological Aspects Of Platelet Aggregation In Piglets Of Milk Nutrition. Research Journal of Pharmaceutical, Biological and Chemical Sciences. 9(5) : 74-80.
- [70] Bespalov DV, Kharitonov EL, Zavalishina SYu, Mal GS, Makurina ON. (2018) Physiological Basis For The Distribution Of Functions In The Cerebral Cortex. Research Journal of Pharmaceutical, Biological and Chemical Sciences. 9(5): 605-612.
- [71] Glagoleva TI, Zavalishina SYu, Mal GS, Makurina ON, Skorjatina IA. (2018) Physiological Features Of Hemo-coagulation In Sows During Sucking. Research Journal of Pharmaceutical, Biological and Chemical Sciences. 9(4):29-33.
- [72] Medvedev IN. (2018) Aggregational Capabilities Of Neutrophils In Patients With Impaired Glucose Tolerance. Research Journal of Pharmaceutical, Biological and Chemical Sciences. 9(5) : 2248-2253.
- [73] Medvedev IN. (2018) Spontaneous Aggregation Of Erythrocytes In Patients With Arterial Hypertension With Impaired Glucose Tolerance. Research Journal of Pharmaceutical, Biological and Chemical Sciences. 9(5) : 2275-2280.
- [74] Bikbulatova AA, Andreeva EG, Medvedev IN. (2018) Hematological Features Of Patients With Osteochondrosis Of The Spine. Research Journal of Pharmaceutical, Biological and Chemical Sciences. 9(3) : 1089-1095.
- [75] Medvedev IN, Zavalishina SYu. (2016) Platelet Activity in Patients With Third Degree Arterial Hypertension and Metabolic Syndrome. Kardiologiya. 56(1) : 48.
- [76] Apanasyuk LA, Soldatov AA. (2017) Socio-Psychological Conditions for Optimizing Intercultural Interaction in the Educational Space of the University. Scientific Notes of Russian State Social University. 16(5-144) : 143-150. doi: 10.17922/2071-5323- 2017-16-5-143-150.
- [77] Maloletko AN, Yudina TN.(2017) (Un)Making Europe: Capitalism, Solidarities, Subjectivities. Contemporary problems of social work. 3 (3-11) : 4-5.
- [78] Pozdnyakova ML, Soldatov AA. (2017) The Essential and Forms of the Approaches to Control the Documents Execution. Contemporary problems of social work. 3 (1-9): 39-46. doi: 10.17922/2412-5466-2017-3-1-39-46.