

CLINICAL-LABORATORY ANALYSIS AND PSYCHOCORRECTION OF PSYCHOEMOTIONAL CHANGES IN TAEKWONDO PLAYERS

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Abstract. *It aims to determine the level of emotional tension of the athlete before the competition and to study the effect of these changes on the pre-competition state. During the research work, it became known that psycho-emotional disorders of various forms and levels were detected in taekwondo players, and these changes were clarified with the help of clinical and laboratory analyses. This article aims at strengthening the system of preparing athletes for the competition and can have a positive effect on the performance of the competition.*

Keywords: *medical-psychological assistance, anxiety disorder, psychoemotional state, psychodiagnosis, aggression, anxiety-depressive disorder.*

Today, it is important to know the formation of each structural component that can play an important role for the athlete's success in creating the psychological preparation of qualified athletes for the competition. In our opinion, such a component is a psycho-emotional component, which includes a number of disorders: reactive anxiety, emotional state, psychoemotional lability, emotional exhaustion and hakoza[1,3].

Every professional athlete knows how to control his emotions, which also depends on his results in competitions. The more psychologically stable they are, the less mistakes they make in the competition. In general, it is natural that it is interesting for every coach and sports psychologist to diagnose the mental state of each athlete before and after the competition and training. But such diagnostic tests are not always carried out. That is why the mental experiences of athletes (depression, stress, depression, phobia) remain hidden[6,7]. Psychological problems related to the competition or pre-competition, such as self-doubt, underestimation of one's own capabilities and strength, anxiety, fear of possible defeats, the ability to accept the psychological side of loads related to tactical, technical and physical training of athletes are formed by psychological preparation [2,4, 7].

Based on this, it can be said that it is appropriate to consider specific recommendations aimed at improving the sports psychological preparation of athletes by maintaining and strengthening their psychological health. Psychological preparation is a process that helps athletes achieve their athletic goals and overcome mental barriers or anxiety associated with all sports. It should be noted that psychological training in sports serves to clarify, prevent and overcome various problematic situations of athletes during competitions or training[5,8,10].

Psychopathological problems take a prominent place among any factors that have a negative impact on the athlete's performance. The study of their psychological capabilities requires active research in the field, identification of the personality stereotype of each athlete, evaluation of the emotional sphere and, if necessary, not to delay psychocorrective measures [9].

Therefore, if each athlete is subjected to psychodiagnostic examinations, psychoemotional sphere is evaluated, and psychotherapeutic help is provided to existing emotional disorders, it will

have a positive effect not only on their mental health, but also on the performance of sports activities.

The purpose of the research is to assess pre-competition emotional sphere changes and providing psychocorrective support in taekwondo athletes through medical-psychological and clinical-laboratory methods.

Research materials and methods: 64 athletes who have been practicing in the National Taekwondo Association were recruited for the purpose of the research. The average age of the subjects is 23 ± 3.1 years. 33 of them are male and 31 female athletes. Athletes were studied in 2 groups, the main group consisted of 32 members of the national team and 32 members of the national team.

30 healthy individuals were taken into the control group, 20 of them are men and 10 are women.

To assess the psychoemotional status of athletes, a medical-psychological questionnaire, a psychological interview, the scale "Express-diagnostics of psychoemotional disorders in athletes" developed by the author, and the analysis of blood hormonal and microelement laboratory indicators of cortisol, magnesium, and D3 were used in our research before and after the psychocorrective program. .

Rational-emotive behavioral psychotherapy formed the basis of the psychocorrective program.

1. Rational-emotive behavioral psychotherapy was introduced to science by Albert Ellis and is based on a cognitive approach to psychotherapeutic treatment. Nowadays, rational-emotive behavioral psychotherapy is widely used in medical practice and sports medicine in the treatment of various psychoemotional conditions.

The founders of rational-emotive behavioral psychotherapy advocate that it is possible to replace mentally unhealthy thoughts with healthy ones, and with their help, eliminate various symptoms that have settled in the brain. Duties of a medical psychologist:

1. To help the athlete understand that the athlete's thoughts affect his pre-competition emotional state and behavior.
2. To learn to identify negative automatic dreams and track them
3. Check and disprove negative automatic thoughts, evidence
4. Replacement of false cognitive thoughts-fantasy with thoughts based on rational perception.

2. Forming the ability to visualize. The goal of the technique is to create mental ease in athletes, to relieve stress, to be able to assess their strength, to increase their confidence in victory, to concentrate, to forget about anxiety. The procedure is performed while lying down, eyes closed, muscles relaxed. The participant is encouraged to imagine positive emotions and is taught to keep this state in mind.

3. Breathing exercise. This is one of the most effective ways for athletes to maintain inner calm, suppress excitement, and concentrate before the competition and the start. Participants take a deep breath, hold it for a while, and then exhale. They should repeat this exercise at least 5 times, up to 3 minutes. Then it is necessary to say "I am calm" 3 times in a low voice.

4. Progressive muscle relaxation. (Jekovson's pose) The purpose of using this technique is to relieve participants from psychological stress or tension, to create mental ease, to increase self-confidence in athletes, to calm the mind by eliminating negative impulses in the body. This

technique can be used by athletes before the competition, before the start, during the competition or after the competition to prevent or eliminate various psychological stresses.

Psychotherapeutic practices with athletes were carried out for 1 month, diagnostic methods were checked and evaluated again 26-28 days before the competition and 2-3 days before the competition. All participants of the study are considered masters and candidates of sports with a category in this sport.

Research results and analysis. The results of scientific research gave the following view. When pre-competition emotional changes in athletes were evaluated using the "Express-diagnosis of psycho-emotional disorders in athletes" scale, it was possible to simultaneously determine anxiety, stress and vegetative disorders in them. (Figure 1.)

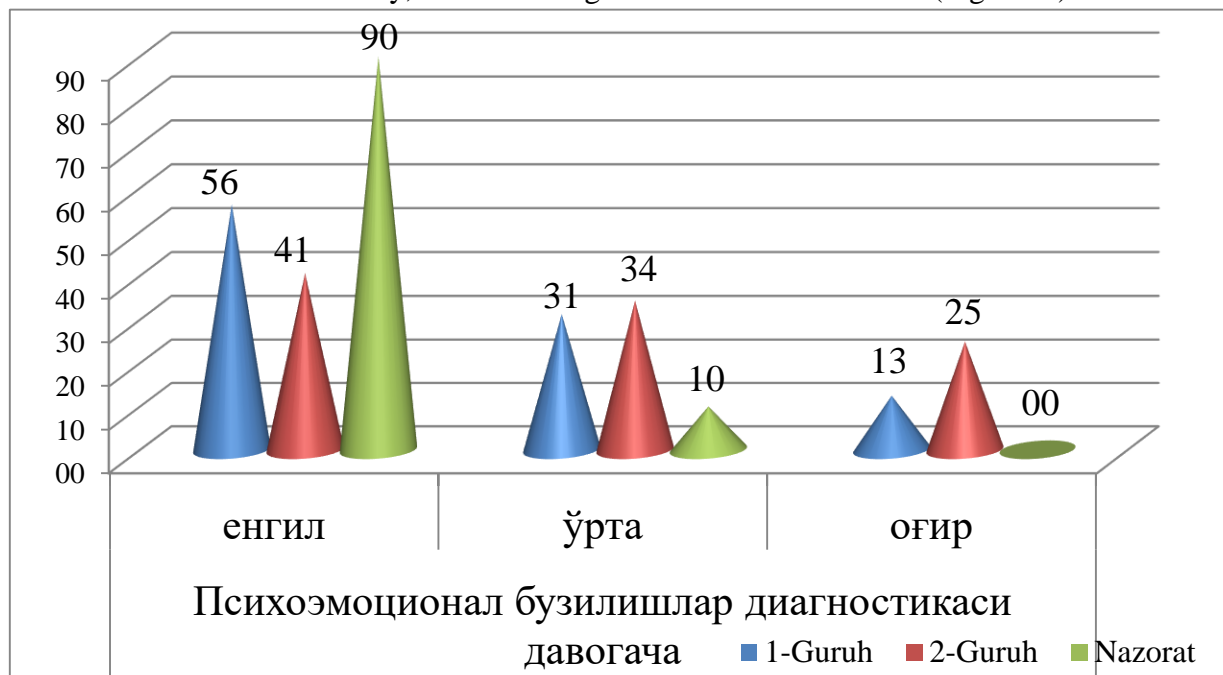


Figure 1. The result of indicators before psychocorrection according to the express-diagnosis scale of psychoemotional disorders in athletes.

From the above results, we can see different levels of psycho-emotional disorders in participants of both main groups. Those that have a negative effect on the activities of athletes are moderate and severe disorders, and in order to further clarify them, we referred to laboratory analyzes (Table No. 2.)

Laboratory indicators	1 group		2 group	
	Man	Woman	Man	Woman
Cortisol 171-536	355,7±22,2*	422,3±23,3	517,6±20,4	499,3±225,5
Magnesium 0.69-1.7	0,86±0,01	0,82±0,02	0,67±0,03*	0,65±0,03*
Vitamin D3	23,6±2,1	17,4±1,4*	12,3±0,89	17,3±1,1**

Note: *- The difference with respect to Group indicators is reliable (*-P<0.05)

From the results of the blood analysis, it was revealed that the cortisol hormone from the hormonal analysis of the blood of the first group, that is, the national team participants, was found

to be at a high level in the athletes, the reason for this is that the athletes are less prone to stressful and anxious situations before the competition, and a lot of physical training. The second, i.e. high level of cortisol abnormality and low levels of magnesium in the athletes of the reserve team once again proves the strength of pre-competition psychoemotional disorders in them. Conducting psychotherapeutic work with athletes of this group requires the relative reduction of existing physical stress, identifying and working on the factors that lead to emotional disturbances. The results of clinical-laboratory and psychometric methods complement each other.

Results of athletes after psychocorrection revealed mild psychoemotional disturbances in 48.43% (n=31) athletes, moderate changes in 32.81% (n=21) and severe psychoemotional changes in 18.75% (n=12) athletes (Table #2).

Diagnostics of psychoemotional disorder		1 group		2 group		Experiment group	
		abs.	%	abs.	%	abs.	%
Before correction	Light	18	56,3±8,9**	13	40,6±8,8***	27	90,0±5,4
	Medium	10	31,3±8,3*	11	34,4±8,5*	3	10,0±5,4
	Heavy	4	12,5±5,9*	8	25,0±7,8**	0	0,0
After correction	Light	28	87,5±5,9***^	25	78,1±7,4***^	0	0,0^^
	Medium	4	12,5±5,9*^	6	18,8±7,0*	0	0,0^
	Heavy	0	0,0^	1	3,1±3,1^	0	0,0

Note: *-the difference compared to the control group is reliable (*-P<0.05; **-P<0.01; ***-P<0.001) ^- differences compared to pre-treatment values are reliable (^-P<0.05; ^^ -P<0.01; ^^^-P<0.001)

Table #2. The result of indicators after psychocorrection on the express-diagnostic scale of psychoemotional disorders in athletes.

Conclusion. From the results of the conducted research, it became known that the emotional sphere of the taekwondo athletes was thoroughly studied through the medical-psychological diagnosis indicated above, and the necessary correction program was drawn up. Psychocorrective practice of rational emotive psychotherapy, self-training, formation of visualization skills, individual use of breathing exercises and relaxation exercises had a significant positive effect. Changes in the pre-competition psycho-emotional sphere of the athletes, stability to pre-competition stressful situations were diagnosed from the early stages, and it was determined that it is necessary to correct the emotional disorders before they reach severe levels. It is possible to use this psychotherapeutic practice for the prevention of pre-competition medical and psychological pathologies in all sports federations, sports clubs, associations, in the training of athletes.

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