

# Regulation of pre-start states of judoists at the stage of sportsmanship improvement

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## Abstract

**Objective of the study** was to theoretically and methodically substantiate the method of regulation of the pre-start states of judo wrestlers at the stage of improving sportsmanship.

**Methods and structure of the study.** A survey was conducted among judoists of the Perm region, who were at the stage of improving their sportsmanship. The practical experience of coaches of the judo club "Bars" (Perm) and the municipal budgetary sports and health club "Judo and Sambo" (Tchaikovsky), as well as psychologists of the regional judo federation, is summarized.

**Results and conclusions.** Based on the results of the analysis of literary sources on the topic of research and generalization of the experience of judo coaches and sports psychologists, an innovative methodology was developed based on the cumulative implementation of the means, methods and conditions for regulating pre-start states and aimed at achieving the state of combat readiness of judokas at the stage of improving sportsmanship.

**Keywords:** *psychological preparation, methodology, regulation of prelaunch states.*

**Introduction.** Sports achievements in modern judo not least depend on how well the athlete is psychologically prepared. The outcome of a competitive duel, according to experts [3-5], is largely influenced by: the strength and mobility of the nervous system, emotional stability, the ability to control the state of anxiety, as well as the level of activation and aggressiveness.

Specialists [1, 2, 5] distinguish two undesirable reactions to stress that are typical for a judoist immediately before a competitive fight: 1) a state of heteroaggression (hyperexcitation is observed, expressed by aggressive behavior; high blood pressure; rapid pulse and breathing; increased muscle tone) and 2) a state of auto-aggression (dissociation is observed; detachment, daydreaming; heart rate and blood pressure are less than normal; lethargy in the muscles). The task of the coach (from the point of view of psychological preparation) is to keep his judoist in a state of combat (optimal) readiness and not to let him,

under the influence of a stressful situation, go into a state of apathy or fever immediately before the fight.

The problem of modern psychological training of judokas of the Perm region aged 15-18 years is that athletes (not members of the national teams and teams of the region) of this age are not fully and systematically accompanied by psychologists, and personal trainers are not always competent in this area. The most common in martial arts methods for diagnosing and correcting pre-start conditions do not meet modern conditions for holding competitions at various levels, so their use becomes ineffective [2, 4, 5].

One of the solutions to this problem, in our opinion, can be the use in the training process of judokas at the stage of improving sportsmanship of the methodology for regulating pre-start states. At the age of 15-18 years, stable neural connections are formed, which indicates a predisposition to the successful use of means for regulating pre-launch states during this period.



**Objective of the study** was to theoretically and methodically substantiate the method of regulation of the pre-start states of judo wrestlers at the stage of improving sportsmanship.

**Methods and structure of the study.** Based on the analysis of literary and documentary sources, it was determined that methods or individual exercises for diagnosing and correcting pre-start conditions should be designed for a minimum amount of time and use appropriate means and methods during competitive activity (special physical exercises of a judoist, bodily practices, breathing exercises, technical - tactical signature techniques), in order to enable the athlete to consolidate a new (corrected psychological state) and conduct a full-fledged technical and tactical preparation for a duel with an upcoming opponent [2, 4, 5].

A survey among judokas of the Perm region who were at the stage of improving their sportsmanship and had the following sports qualifications - I adult sports category (38 judokas) and Candidate Master of Sports (CMS) category (12 judokas) - showed that 76% of athletes cannot independently bring themselves into a state of combat readiness before a duel with a principal opponent (an opponent to whom they lost in the last personal meeting or lose systematically) or with a little-studied opponent at competitions of various levels. At the same time, 92% of athletes note the lack of systemic psychological and pedagogical support from a personal trainer and effective regulation of the psychological state immediately before a competitive duel.

The results of the survey of athletes and the generalization of the practical experience of the coaches

*Examples of means used in the method of regulating the pre-start state of judokas at the stage of improving sportsmanship*

Prelaunch state	Means (applied 5-10 minutes before the competitive duel)	Dosage
<i>Autoaggression</i>	<ul style="list-style-type: none"> <li>mobile games of wrestlers (games in openings and with tasks aimed at overcoming apathy and activating muscle groups participating in a competitive fight)</li> </ul>	2-3 repetitions for 10-15 s
	<ul style="list-style-type: none"> <li>bodily practices (self-massage or exercises using objects):</li> <li>- the use of a manual expander to enable grasping muscles to work;</li> <li>- self-massage of the muscles of the foot using rubber balls with a diameter of 3-5 cm (kneading the muscles by pressing and rolling the ball over the entire surface of the foot)</li> </ul>	<ul style="list-style-type: none"> <li>- 2-3 repetitions for each brush 6-8 times</li> <li>- 2-3 repetitions for each foot for 15-20 s</li> </ul>
	<ul style="list-style-type: none"> <li>technical and tactical crown techniques (performing crown attacking techniques and combinations to overcome the state of apathy and include the necessary muscle groups in the work)</li> </ul>	- 2-3 repetitions 4-5 times (in the leading direction)
	<ul style="list-style-type: none"> <li>breathing exercises (diaphragmatic breathing)</li> </ul>	- 2-3 repetitions of 8-10 respiratory cycles
<i>Heteroaggression</i>	<ul style="list-style-type: none"> <li>mobile games of wrestlers aimed at performing defensive and counterattacking actions (games of touching, pushing) to overcome the state of pre-launch fever and include an analysis of the opponent's actions</li> </ul>	2-3 repetitions for 20-25 s
	<ul style="list-style-type: none"> <li>bodily practices (self-massage or exercises using objects) are performed for the number of times in the allotted time (to overcome the pre-start fever and normalize the judoist's thought processes):</li> <li>- use of a manual expander;</li> <li>- self-massage of the muscles of the foot using rubber balls with a diameter of 3-5 cm (kneading the muscles by pressing and rolling the ball over the entire surface of the foot)</li> </ul>	<ul style="list-style-type: none"> <li>- 2-3 repetitions for each brush 4-5 times in 10 seconds</li> <li>- 2-3 repetitions for each foot for 20-25 s</li> </ul>
	<ul style="list-style-type: none"> <li>technical and tactical crown techniques (performing crown protective and counterattacking techniques and combinations to overcome the state of pre-launch fever)</li> </ul>	2-3 repetitions 4-5 times (in the leading direction)
	<ul style="list-style-type: none"> <li>breathing exercises</li> </ul>	2-3 repetitions of 15-20 respiratory cycles



of the judo club "Bars" (Perm) and the municipal budgetary sports and health club "Judo and Sambo" (Tchaikovsky), as well as psychologists of the regional judo federation served as the basis for developing a methodology for regulating pre-start states of judo wrestlers at the stage of sportsmanship improvement.

**Results of the study and their discussion.** The main objective of the experimental technique was the diagnosis of the current psychological state of the judoist and its regulation to the state of combat readiness.

The study used the following methods for diagnosing the pre-start conditions of judoists aged 15-18:

1) *Dynamometry*. Allowed to evaluate the force of contraction of the muscles of the hand of judoists. This method was used after the preparatory part of the training session (to determine the athlete's individual norm). In competition conditions, this method was used 10-15 minutes before the fight. If the current indicator of the athlete's dynamometry was below the norm, then this indicated a state of auto-aggression (lethargy of the muscle fibers necessary for conducting a competitive fight). If a judoist had an excess of the norm, then this indicated a state of heteroaggression (excessive muscle tension).

2) *Respiration rate*. In competitive activity this method was used 10-15 minutes before the competitive bout. If the current indicator of the respiratory rate is below the norm, then this indicated a state of auto-aggression (a state of "fading", detachment from what is happening around). If the athlete's result exceeded the individual norm, then he had a state of heteroaggression (the judoka is in a state of pre-start fever).

3) *Diagnosis of the posture of a judoist* was determined visually by a personal trainer together with a team psychologist. In competitive activity this method was used 10-15 minutes before the competitive bout. The posture characteristic of the pre-start psychological state of auto-aggression had the following characteristics: the athlete put his legs close to each other or put one leg back; legs were straight; allowed excessive deviation of the back and head back; made the minimum number of low-amplitude movements; under certain situations, and took the position of gray hair and inaction. In the state of heteroaggression, the judoka tilted his torso and head forward, rounded his shoulders (as in wrestling); legs bent and placed slightly wider than shoulders; made a large number of active and short-term movements (not concentrating on the long-term performance of one movement).

To regulate the pre-start states of judo wrestlers, the following means were used as part of the developed methodology: wrestlers' outdoor games, bodily practices, technical and tactical crown techniques, breathing exercises. Examples of the means used to regulate the pre-start states of judo wrestlers are presented in the table.

**Conclusions.** Distinctive features of the developed methodology is the dosed use of special means aimed at regulating the pre-start states of judokas at the stage of improving sportsmanship, which is currently being tested in sports clubs in the cities of Perm and Tchaikovsky.

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