Weight control of young judoka: problems and methodological recommendations

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Abstract

Purpose: This paper is to outline the theoretical basis of the diet of young judokas in the pre-competition period, to highlight the main mistakes and analyze the methodology of correction of the most common mistakes that face in their daily work coaches-mentors of young judokas and wrestlers themselves.

Methods: Analysis and generalization of the existing scientific and methodological literature and normative documents on the topic of research used 8 established test exercises aimed at determining the physical condition of the athlete, as well as indicators of HR, BP and visual control of the state and performance of technical elements to identify relevant problems.

Results: According to the results of studies of physical qualities and well-being of a group of athletes-wrestlers in the case of using standard "outdated" methods of weight loss before the competition showed dehydration and a decrease in general condition that negatively affects the competitive result, in the case of using the methods of control and weight loss recommended in the article significantly improved the general and physical condition of the athlete as well as affected the well-being in the pre-competition period and does not have a stressful effect on the body.

Conlcusion: To achieve the planned desired sports result, judoist of youth age should plan to start integral training long before the upcoming start. It is recommended to work among all athletes and their coaches. In order to express and bring up the conveyor of highly educated, literate athlete, which in the consequence become an adult successful specialist, achieve high sports result.

Keywords: weight class, fatigue, hormonal background, dehydration, balanced nutrition, evaporation, recovery, water balance, psychological attitude, high result.

Introduction

In order to implement the decree of the President of the Republic of Uzbekistan from June 20, 2022 № PP-286 "On measures for further development of judo sport", as well as to increase the popularity of judo among the population as an Olympic sport, to improve the system of selection of talented athletes among young people, to ensure that the national teams of the country achieve high results in prestigious sports competitions, currently developed a whole system for the training of high-class athletes and the development of judo wrestling in the Republic of Kazakhstan.

Judo is not only a highly developed martial art, but also a sport, the popularity of which has recently increased many times, especially due to the results of the Olympics-2024 in Paris, where the athletes of Uzbekistan won 3 medals, and the triumphant performance of our compatriot Diera Keldiyorova became a sensation in the world of judo. And served as a stimulus to popularization of women's judo among the population of the Republic.

Despite the comparative successes of athletes of the national team of Uzbekistan in the international arena, including young athletes, in the system of training young wrestlers at the moment there are and remain unresolved a number of urgent problems. The main and the most difficult of them is the system of pre-competition regulation of body weight, because teenagers have to exist in rather difficult conditions, among the abundance of temptations and factors that contribute to the disruption of hormonal background and metabolic processes. Since teenagers nowadays have to exist in quite difficult conditions, among the abundance of temptations and factors that contribute to the disruption of hormonal background and metabolic processes. At the same time adolescents due to their age are in a state of growth phase, which requires a large amount of nutrients to maintain the growth phase.

In the period of maturation of a child's organism, in the period of hormonal changes and intensive growth in any athlete there is a danger that at the moment of the next release of growth hormones and sex hormones there may be a failure of regulatory processes and failure of adaptation, which is fraught with consequences. It is impossible to foresee at what stage in the body of a young athlete there will be a stop of growth in length and all the calories consumed by the junior will not go to provide

plastic processes, but will be transformed into unnecessary fat deposits due to uncontrolled consumption of fast food and carbonated drinks, which has become a panacea for young people.

A young athlete does not have enough willpower to keep him from eating foods harmful to him, especially if he goes to international competitions without a personal mentor, where he, on the one hand, feels old enough to make some decisions, and on the other hand, possessing psychological immaturity and lack of theoretical knowledge on the physiology of metabolic processes in general and can afford to eat foods harmful to him and his weight category.

Consider the major health risks of weight control problems. Moving to a lighter category can provide a significant advantage, but it can also lead to negative health consequences for young athletes. Dramatic weight fluctuations can lead to a variety of medical problems such as dehydration, electrolyte imbalances, cardiovascular problems, and even damage to internal organs.

Results and discussion

The main mistakes in athletes' weight loss are as follows:

1. initially irrational nutrition.
2. Failure to understand the physiological basis of the growing body.
3. Psychological immaturity and inability to resist temptation.
4. Consumption of small amounts of simple pure water.
5. Reliance on irrational advice from the trainer, which is based primarily on the personal experience of the trainer himself, often not always successful.
6. Use of pharmacological drugs and medical methods to reduce body weight.

And all these mistakes are often observed in practice, even despite the presence of control on the part of the coach-mentor in the case of lack of sufficient theoretical knowledge in this area, even though it is professional for them, sometimes recommending to his ward completely irrational and incorrect advice on the regulation of body weight

The results of the conducted questionnaire among cadets (athletes from 15 to 18 years old) in judo show that more than half of them reduce body weight before competitions, of which 54% are boys and 46% are girls.

Of those athletes who reduce body weight in the pre-competition period, 25 percent of all athletes reduce it by 6 percent or more from the original, 17 percent by 5 percent, 12 percent by 4 percent, and the remaining athletes by less than three percent.

Nowadays, many personal trainers apply for their athletes the method of weight loss, which used in their practice by applying aerobic -anaerobic loads and fasting with limitation of pure water consumption.

The so-called "hard" method, in this case there is no strength left for training, then the young athlete simply goes to bed, so that the strength is not wasted, but also not replenished with extra calories, motivated by the fact that their personal experience in their junior years brought them results in weight loss in this way. Immediately before the competition, the athlete, as well as in the young years of the coach, after the control weighing to give strength they start to feed heavily with protein food: chicken broth, boiled chicken and red caviar, justifying it by the fact that the body, depleted in the pre-competition period by starvation, needs to replenish resources through the use of nutritious broth.

On the contrary, after starvation and any restriction in food intake, the athlete has absolutely no desire to eat protein food, which takes both time and a large amount of internal energy to extract energy from. And the enzyme systems designed to digest protein are unable to immediately release a sufficient amount of necessary substances, which also serves either as a reason for the athlete to refuse to eat, or, even worse, he takes this food, but afterwards he vomits in order to alleviate his condition after the forced and unusual overeating.

The lack of elementary physiological sports literacy in this, and often many other issues, indicates that this approach leads to a complete loss of strength, maladaptation, and accordingly, and low sports performance among athletes. In the youth national team (wrestlers up to 23 years old) and among cadets (wrestlers up to 18 years old) the situation is also complicated by the fact that during these periods young athletes have active growth processes of both bone and muscle tissue, grow all the vessels, all parts of the body, which requires, first of all, plastic resources inside the body, and at the same time - incredible efforts to train and limit themselves in the quantity and quality of food consumed, and also in the amount of liquid, even water.

These are the recommendations given to athletes for weight loss:

- reducing the caloric content of food by 15-20% of the usual;
- reducing the amount of fluid and water consumed to 1 liter per day, taking into account liquid food;
- wearing a burn suit during training (dense windbreaker with a padded cover);
- use of herbal laxatives;
- use of diuretics at the rate of 2 mg per kg of body weight, including medications (e.g., furosemide).
-bathing until sweating begins;
- the last meal no later than 18 hours;
-eating lemon and other citrus fruits to activate metabolic processes.

The results of the decision and discussion showed that with this approach there is a violation of adaptation processes, dehydration, loss of muscle mass, fat reserves are not consumed, intoxication increases, the developed motor skills are lost, all psychomotor reactions are slowed down, lethargy appears, reaction speed decreases and all speed and strength qualities of the athlete, developed over the years, are inhibited, mood and motivation to win decreases, which either leads to unsuccessful performance at competitions, or significantly reduce it.

Psychological pressures cannot be ruled out either. Excessive emphasis on weight control can lead to eating disorders, low self-esteem and even depression. The environment of selection and competition can place significant psychological pressure on young athletes.

It is recommended to study the basics of sports physiology, if possible to avoid or prevent the appearance of the need to reduce the body weight of the athlete before the competition, so as not to expose the athlete not only sports competition stress, but also oxidative stress, which develops inevitably, due to the disruption of normal metabolic processes Recommendations used in weight loss in athletes in the pre-competition period, should be made individually for each athlete, with knowledge of his level and speed of weight loss. However, it is possible to individualize and recommend the percentage of body weight to be reduced.

When 5-6% of the weight to be lost from the initial weight (weight loss period - 12 days) it is recommended:

- use the dietary regimen for the preparatory period for weight loss and the main period of weight loss;
- use the bath on the first day of the initial stage and the fifth day of the main stage of the weight loss period;
- to carry out training sessions in a burn suit;
- monitor the physiology of excretion of the body (if necessary, if it is impossible to go to the toilet and defecate in full);
- application of massage after training loads.

When burning off 4-5% of the reduced weight from the initial weight (period of weight loss - 10 days) is recommended:

- use the dietary regimen for the preparatory period for weight loss and the period of weight loss, reducing the caloric content of the diet;
- use a bath on the first day of the initial stage of the weight loss period;
- to conduct training sessions in a burn suit;
- monitor the physiology of excretion of the body (in case of inability to go to the toilet and defecate in full);
- application of massage after training loads.

When burning off 3-4% of the reduced weight from the initial weight (period of weight burning off - 9 days) it is recommended:

- application of dietary regimen for the preparatory period and the period of weight loss, reduction of caloric intake;
- the use of a burn suit;
- to follow the physiology of excretion of the body (in case of inability to go to the toilet and defecate in full);
- application of massage after training loads.

In the case of 2-3% of the weight loss from the initial weight (weight loss period - 8 days) is recommended:

- application of dietary regimen for the preparatory period and the period of weight loss, reduction of caloric intake.

All athletes, especially young athletes, should drink enough water, at the rate of 30 ml per kg of body weight, in order not to slow down, but on the contrary, to accelerate metabolic processes that help burn fat tissue and prevent dehydration of muscle tissue and loss of elasticity.

A young athlete should always be provided with sufficient sleep in a well-ventilated and pre-ventilated room.

The caloric content of food is calculated from the ratios of the basic metabolism and energy expenditure required to perform training work, but to reduce body weight is specifically reduced in the pre-competition period by 10-15 percent by excluding simple carbohydrates from the diet (sugar, bakery products made of wheat flour, all baked goods, all confectionery), animal fats (lard, animal fat and products cooked on it or containing it), smoked meats, high-calorie products such as sauces (mayonnaise), canned foods and products containing genetically modified organisms.

And also let's not forget about the control of nutrition immediately before the competition, after the control weighing, when the controlling bodies are convinced that the athlete can perform in this selected weight category, to provide the wrestler with plastic resources for the entire period of competition is necessary diet, which will be complex carbohydrates (optimally pasta or cereal porridge: rice or buckwheat), a small amount of proteins, such as boiled chicken breast, a sufficient amount of plain clean water at the rate of 30 ml of water.

Conclusion

So, let’s summarize: the program of weight loss begins about 12-14 days before the competition, and great importance is given to the psychological component of weight loss activities. Various ways of psychological mood to reduce the necessary amount of body weight, without losing the percentage of muscle tissue, are significant procedures in the system of measures in the pre-competition period. Obligatory points of psychological attunement should be:

2. Identifying the motivating factors for each individual athlete (for some it will be a medal place, for some it will be a more modest result, and for some it will be the very participation in competitions of a certain rank, for example, the first international competition, or the first competition after an injury or other stress).

3. Visualization of the achieved desired goal at the moment of its accomplishment, in the present time.

4. Modeling of sensations at achievement of the desired goal at the moment of its accomplishment in the present time.

A way of “giving the word” to a third person or group of persons that from a certain moment, the beginning of which is the time from which the decision to reduce body weight is made, that the process of reducing body weight will be performed by the athlete according to all the rules conceived by the athlete himself and his coach, and if possible the wrestler will achieve the maximum sports result.

6. Execution of exercises and internal trainings on representation of that internal work, on maximal assimilation of all foodstuffs which the wrestler uses for reduction of body weight, but at the same time experiences saturation, gain of muscle mass, increase of fat depot decay, provision of necessary level of blood glucose and sufficient excretion of waste products of metabolism.

Training oneself in the feeling of preserving one's own dignity and the feeling of pride and self-respect for oneself and one's actions, and for the ability to keep one's word, in order to achieve one’s self-defined goal.

Conclusion Weight control in young judokas is an important but challenging task. The wrong approach can lead to serious consequences for health and sports performance. Therefore, it is necessary to take into account the athletes' health as well as psychological aspects. Effective weight control should be based on the principles of a balanced diet, regular physical activity and a supportive atmosphere. Adequate attention to these recommendations will help to preserve health and improve sports performance of young judokas.

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