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ON THE ISSUE OF BODY WEIGHT LOSS BY WRESTLERS AGED 20–23

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Key words: *freestyle wrestling, weight loss, weight categories, methods of weight loss, competitive activity.*

The purpose of the study: to determine the peculiarities of weight loss by wrestlers, to identify the means and methods used for weight loss. Research material and methods. The following generally accepted methods were used in the study: analysis of scientific and methodological literature and Internet sources; questionnaires; methods of mathematical statistics. We conducted a survey during the Ukrainian Championship in freestyle wrestling among men and women under 23 (Zhytomyr, 07–09.09.2021) and the training camp in preparation for the World Championship among men and women under 23 (State Olympic Training and Sports Centre "Koncha Zaspa", October, 2021). The survey involved 56 athletes of various sports qualifications engaged in freestyle wrestling. MS Excel was used for statistical data processing and graphical presentation of results. Results: in the course of the study, it was established that in order to participate in competitions, many athletes (76.9%) have to resort to artificial weight loss and lose weight at least 2 times a year (57%). More often, wrestlers take up to 3 days to lose weight and use a forced method of reducing body weight. It was found that on average, athletes of light weight categories (29%) artificially reduce their weight by 1–3 kg, while for them this is the maximum level of weight reduction, of medium weight categories – by 5–7 kg, and of heavy weight categories – by 7–9 kg. The means of regulating body weight are dietary restrictions, selection of physical activity with various conditions of increased dehydration. Conclusions. The most popular method of weight loss among wrestlers is forced weight loss. As the competition approaches, an athlete who is a few kilograms overweight stops eating, starts training more intensively and finally resorts to dehydration – water withdrawal. On the basis of the above we will develop a methodology of forming the readiness of athletes to participate in freestyle wrestling competitions within weight categories.

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Ключові слова: *вільна боротьба, згонка ваги, вагові категорії, методи згонки, змагальна діяльність.*

Мета – встановлення особливостей зниження ваги борцями, виявлення засобів і методів, що використовуються для згонки ваги. Матеріал і методи дослідження. У дослідженні були використані такі загальноприйняті методи, як: аналіз науково-методичної літератури та джерел Інтернету; анкетування; методи математичної статистики. Нами було проведене анкетування під час чемпіонату України з вільної боротьби серед чоловіків і жінок до 23 років (м. Житомир, 07–09.09.2021 р.) і НТЗ з підготовки до чемпіонату світу серед чоловіків і жінок до 23 років (ДОНСЦ «Конча-Заспа», жовтень, 2021 р.). У анкетуванні взяли участь 56 спортсменів різної спортивної кваліфікації, які займаються вільною боротьбою. Для статистичної обробки даних і графічного представлення результатів використовувалася програма MS Excel. Результати: у ході дослідження було встановлено, що для участі у змаганнях багатьом спортсменам (76,9%) доводиться вдаватися до штучного зниження ваги та зганяти вагу не рідше 2 разів на рік (57%). Частіше борці відводять на згонку ваги до 3 днів і використовують форсований метод зниження маси тіла. Виявлено, що у середньому спортсмени легких вагових категорій (29%) штучно зменшують свою вагу на 1–3 кг, при цьому для них це максимальний рівень зниження ваги, середніх вагових категорій – на 5–7 кг, а важких – 7–9 кг. Засобами регулювання ваги тіла є обмеження харчування, підбір фізичного навантаження з різними умовами підвищення дегідратації. Висновки. Найпопулярнішим методом згонки ваги у борців є форсований. У міру наближення до змагань атлет, який має кілька зайвих кілограмів понад норму, припиняє споживати їжу, починає тренуватися більш інтенсивно і, нарешті, вдається до дегідратації – виведення води. На підставі вищезазначеного нами буде розроблено методику формування готовності спортсменів до участі у змаганнях з вільної боротьби в межах вагових категорій.

Introduction. Regulation of body weight is important for sports practice. Of course, this problem primarily attracts the attention of athletes participating in competitions with weight gradations regulated by the rules (mass wrestling, boxing, weightlifting, powerlifting, etc.). Freestyle wrestling is no exception (about weight categories) [1; 6; 10; 11].

It is known that the absolute strength of athletes of the same training is greater, the greater the athletes' own weight [4; 8; 9]. This is because the factor of its increase is the growth of muscle mass. In order to have an advantage over their rivals in terms of relative strength, athletes tend to compete in a lighter weight category. One of the easiest ways to do this is to reduce body weight [2; 7; 14; 15; 16; 17]. However, this way does not always lead to the desired result.

In our opinion, the accumulated experience of weight matching in sports where there are weight

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categories [3; 5] cannot be mechanically transferred for use by athletes in freestyle wrestling after changes in the rules of the competition [12; 13]. It is necessary to develop your own method of weight matching, taking into account changes in the conditions of weighing athletes.

Each athlete should regularly monitor their weight by weighing themselves naked in the morning on an empty stomach; after morning exercise (exercises); after each training session; and before going to bed [1; 8]. Only taking into account the dynamics of body weight throughout the day can guarantee an individual approach when building an effective weight loss methodology.

Maintaining the required body weight is of great importance when preparing an athlete for competitions, because only the choice of the optimal way to reduce body weight will ensure the maintenance of high competitive performance and the achievement of a high sports result. Therefore, the problem of regulating the body weight of wrestlers while maintaining high performance is relevant today.

Connection of work with important scientific programs and practical tasks. The work was carried out in accordance with the topic of the SRW of the Department of Theory and Methodology of Olympic and Professional Sports of Ternopil Volodymyr Hnatyuk National Pedagogical University "Scientific and methodological foundations of long-term technical and tactical training in freestyle wrestling".

The purpose of the study is to determine the peculiarities of weight loss by wrestlers, to identify the means and methods used for weight loss.

Research material and methods. The following generally accepted methods were used in the study: analysis of scientific and methodological literature and Internet sources; questionnaires; methods of mathematical statistics.

We conducted a survey during the Ukrainian Championship in freestyle wrestling among men and women under 23 (Zhytomyr, 07–09.09.2021) and the training camp in preparation for the World Championship among men and women under 23 (State Olympic Training and Sports Centre "Koncha Zaspa", October, 2021). The survey involved 56 athletes of various sports qualifications engaged in freestyle wrestling. MS Excel was used for statistical data processing and graphical presentation of results.

Research results and their discussion. When developing a methodology for reducing body weight by athletes in freestyle wrestling, it is important to characterise the problem of weight loss by wrestlers by assessing their opinion on the basis of a questionnaire survey. The questionnaire survey was conducted in order to establish the peculiarities of weight loss by wrestlers, to identify the means and methods used for weight loss.

The qualitative and quantitative composition of the respondents is shown in Figures 1 and 2.

Assessing the overall experience of the respondents in sports (Figure 3), we see that the answers provided by the survey participants are credible and can be objectively interpreted.

The majority of respondents have experience in freestyle wrestling, which shows that they have experience of participating in competitions, and therefore have experience of adjusting their weight to the limits of the weight category.

In order to organise the experiment, it was also important for us to clarify the massive weight category in order to form the participants of the control and experimental groups on the basis of these data (Figure 4).

Depending on the level of competition, many athletes (76.9%) have to resort to artificial weight loss (Figure 5), but some respondents (43%) believe that weight loss should only be done before major competitions.

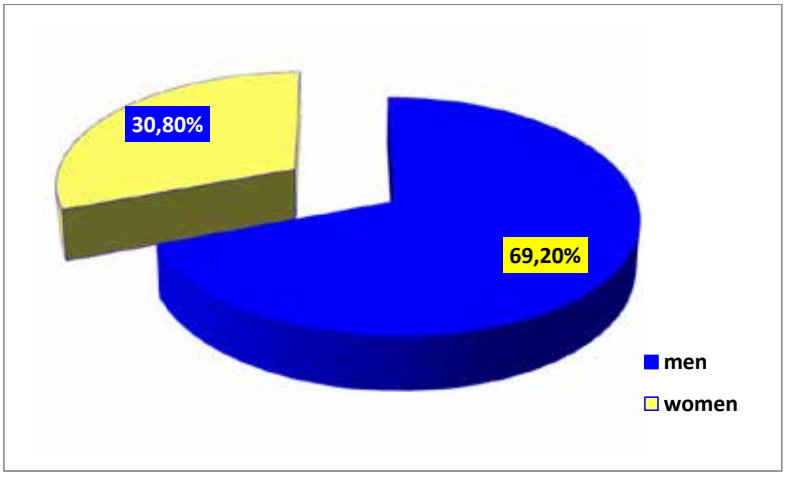

Figure 1. Gender composition of respondents

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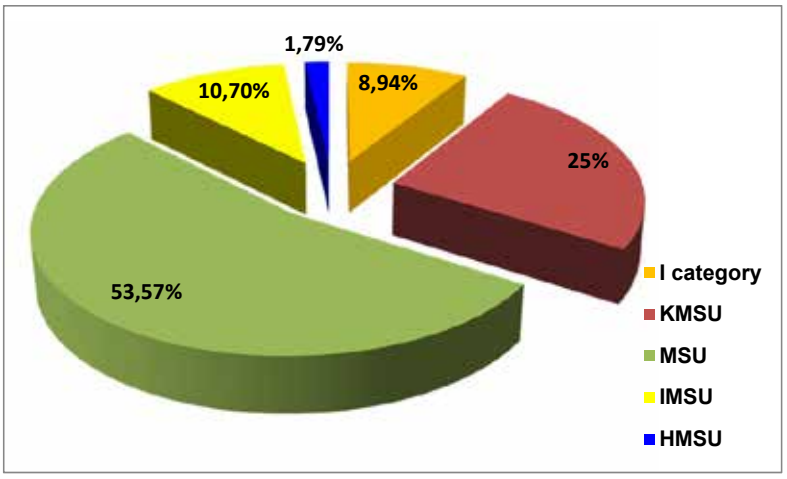

Figure 2. Distribution of respondents depending on sports qualification

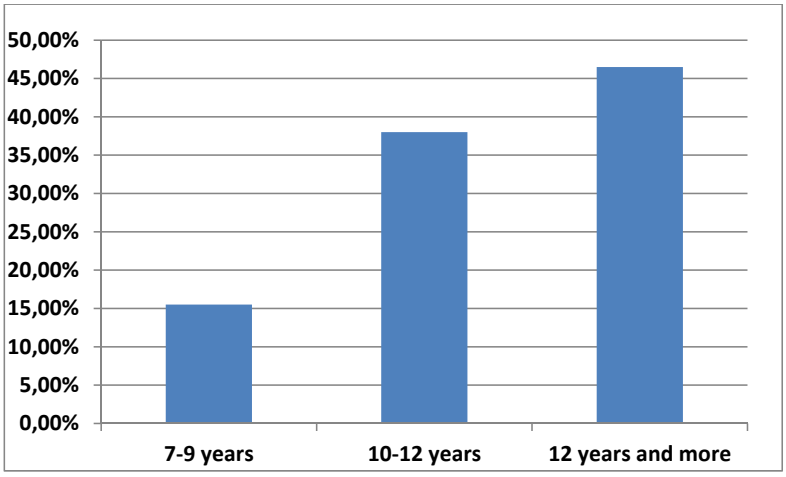

Figure 3. Total experience in freestyle wrestling by respondents

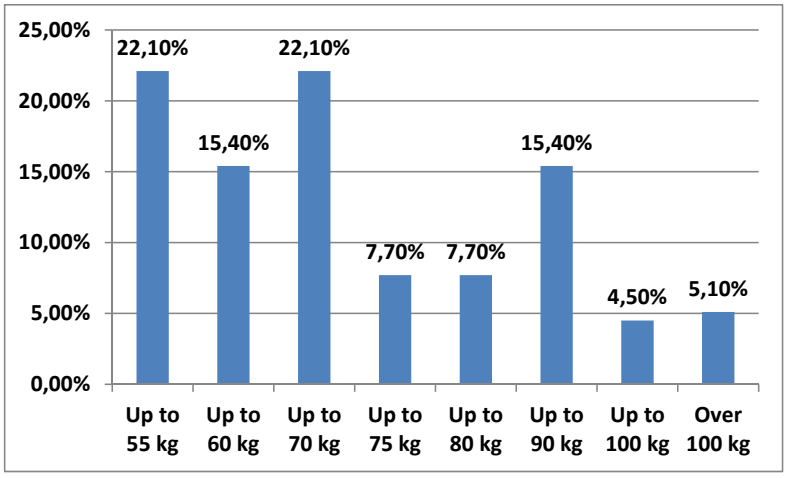

Figure 4. Approximate distribution of survey participants by weight category

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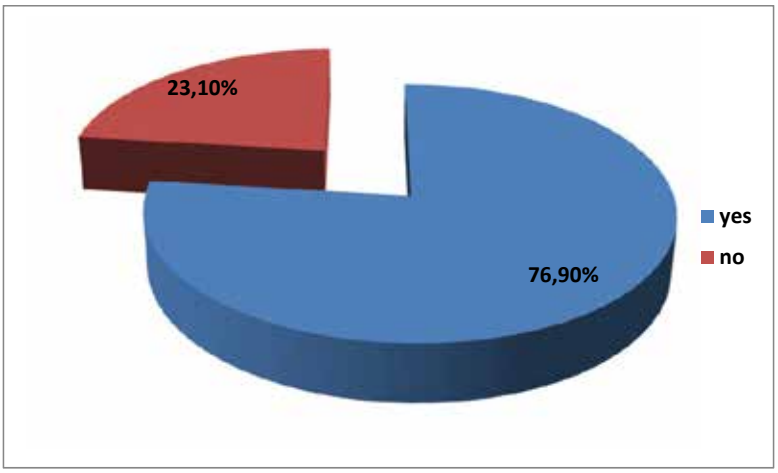

Figure 5. Athletes use of weight loss before competition

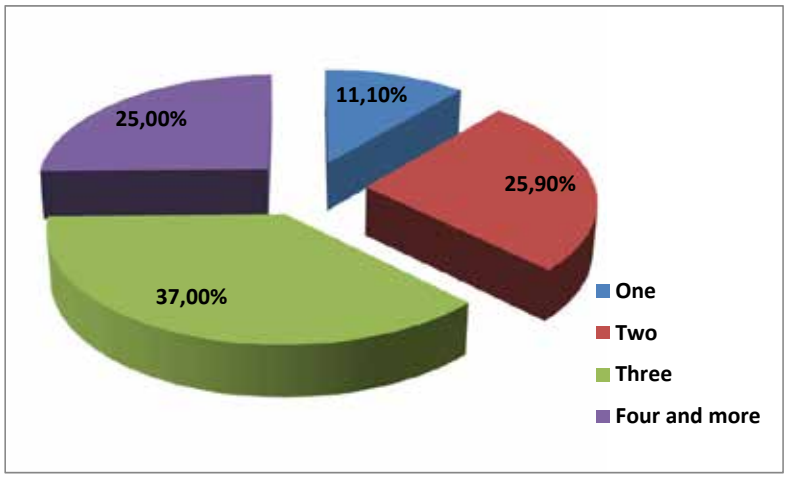

Figure 6. Frequency of weight loss before competitions (per year)

Depending on the amount of weight lost, the majority of athletes (57%) have to change their training process when regulating their weight.

Respondents say that they lose weight before competitions at least twice a year. Almost half of the survey participants lose weight three times a year (Figure 6).

Athletes should start losing weight at least one week before a competition, according to 11.1% of respondents. The majority of respondents (37%) take up to 1–3 days to lose weight, with one half (25.9%) spending up to 3–5 days and the other half (18.5%) up to 7 days (Figure 7).

The most popular method of weight loss among wrestlers is the forced method, when weight loss occurs in a short period of time and in small amounts. Athletes also use interval, shock and gradual-incremental methods, the peculiarity of which is the presence of a stage of preparation of the body for weight loss and intensification of weight loss by the end of the second stage (Figure 8).

We found that lightweight athletes (29%) on average artificially reduce their weight by 1–3 kg, and this is the maximum level of weight loss for them. Middleweight athletes (58%) tend to lose more weight – from 5 to 7 kg. Athletes in heavyweight categories resort to weight loss less often, but the minimum amount of weight lost is 7–9 kg (Figure 9).

We have found that as an athlete who is several kilograms overweight approaches a competition, he or she stops eating, starts training more intensively, and finally resorts to dehydration and water withdrawal. More details on the use of weight loss products are shown in Figure 11.

The tactic of weight loss before freestyle wrestling competitions for more than half (55.6%) is to lose weight before qualifying competitions, and then to lose weight before each new start (regional championship, Ukrainian championship, etc.) (Figure 12).

Weight loss is associated with negative changes in the athlete's body. Most often, it is a deterioration in

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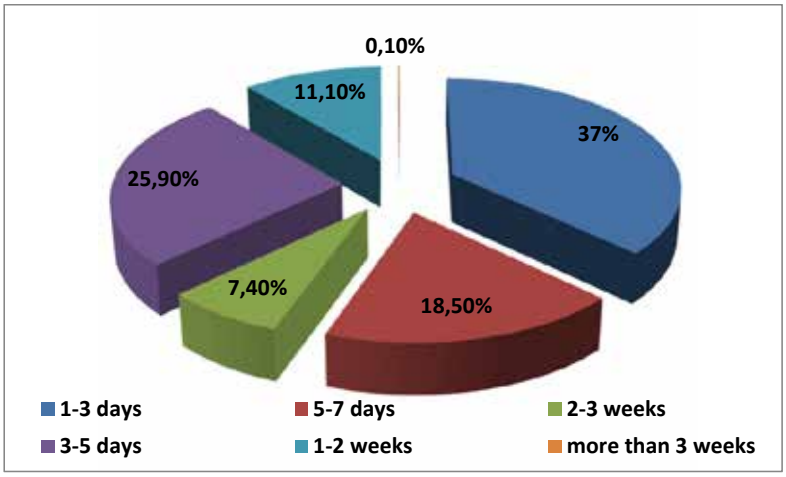

Figure 7. Number of days needed to lose weight before a competition

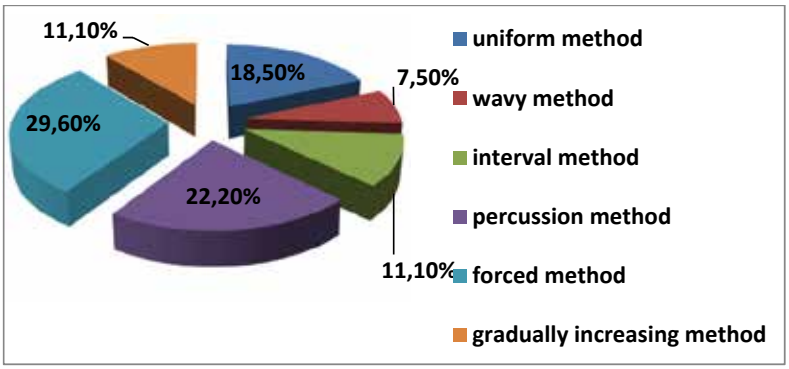

Figure 8. Weight loss methods used in freestyle wrestling

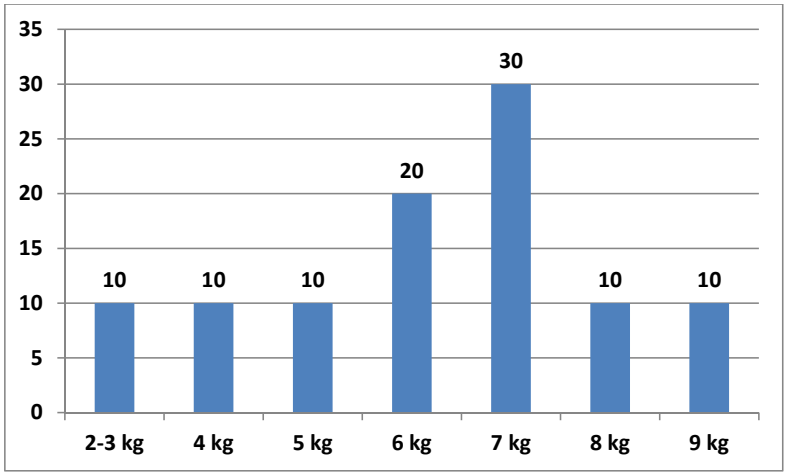

Figure 9. Maximum weight lost by athletes before the competition

mood (66.7%), a decrease in strength (33.3%), a deterioration in sports performance (22.2%), etc. (Figure 13).

Thus, when starting to adjust the weight, it is necessary to focus on the limit values of the training weight of martial artists of the corresponding weight categories. It should also be remembered that weight loss reduces the effectiveness of the training process and impairs performance.

Conclusions. It has been established that weight regulation in athletes is a pedagogical problem

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associated with the management of metabolic processes in the body. Pedagogical weight regulation occurs at the level of the extreme stages of metabolism – the intake of substances from the outside (nutrition) and the release of end products, including the impact of training physical activity.

In sports, biopedagogical weight management is used at all stages of metabolism. When starting to regulate weight, it is necessary to focus on the limit values of the training weight of martial artists of the corresponding weight categories. It should also be remembered that weight loss reduces the effectiveness of the training process and impairs performance.

It was found that in order to participate in competitions, many athletes (76.9%) have to resort to artificial weight loss. Depending on the amount of weight lost, the majority of athletes (57%) have to change the training process when regulating their weight, and they also resort to weight loss before competitions at least 2 times a year. The majority of respondents (37%) spend up to 1–3 days on weight loss.

The most popular method of weight loss among wrestlers is forced weight loss, which means that weight loss occurs in a short period of time and in small amounts. It was found that athletes in light weight categories (29%) artificially reduce their weight by 1–3 kg on average, and this is the maximum level of weight loss for them. Middleweight athletes (58%) mostly lose a greater amount of 5 to 7 kg. Athletes in heavyweight categories reduce their weight less frequently, but the minimum amount of weight lost is 7–9 kg. As the competition approaches, an athlete who is a few kilograms overweight stops eating, starts training more intensively and finally resorts to dehydration – water withdrawal.

On the basis of the above we will develop a methodology of forming the readiness of athletes to participate in freestyle wrestling competitions within weight categories.

Prospects for further research will be aimed at substantiating, developing and experimentally testing the effectiveness of the methodology for forming the readiness of athletes to participate in freestyle wrestling competitions within the weight category.

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