



RATE OF SUCCESSFUL ATTEMPTS OF FEMALE WEIGHTLIFTERS ON THE 2024 EUROPEAN WEIGHTLIFTING CHAMPIONSHIPS

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ABSTRACT

The results achieved in official competitions are of fundamental importance in the process of control and assessment of the overall training preparation of elite athletes as a source of feedback information. The struggle for the top places often puts competitors under tremendous psychological and physiological pressure. In Olympic weightlifting, this struggle is particularly intense in events where athletes of similar potential and preparedness compete, especially in first attempts or attempts that can potentially determine the final ranking. Unsuccessful attempts can often cause competitors to underperform or drop out. **Purpose.** The purpose of the study was to analyze the rate of successful attempts of female weightlifters on the 2024 European weightlifting championships in Sofia, Bulgaria. **Methods.** The attempts of 177 female weightlifters in 10 weight classes were recorded and statistically analyzed. The rate of successful attempts was estimated – overall and stratified by attempt number. **Results.** The overall rate of successful attempts for the snatch and clean and jerk was similar (with insignificant differences) for all studied weight classes – about 55%. Nearly 45% of athletes either failed in their first attempts or refused further attempts. For both competitive exercises, the highest success rate was measured in the first attempts, followed by second and third. After stratifying results by competitive exercise, we found a 2% lower rate of successful attempts in the clean and jerk compared to snatch. **Conclusion.** In our opinion, pre-competition reduction of body mass and/or accumulated fatigue during the preparation is the main reason for the lower rate of success in the clean and jerk. In addition, the early specialization of weightlifters may also be a factor, as it affects the overall pace of reaching high sports mastery and performance during the years of training and preparation for Olympic, World or European championships.

Key words: rate of success, attempts, female weightlifters, European championships

INTRODUCTION

The modern development of weightlifting is characterized by an ever-increasing competitiveness in all weight classes between the strongest female weightlifters in Europe. Over the years, there has been a tendency towards greater equalization of the sports results of the elite. This trend makes psychological preparedness and sports tactics to become increasingly important. As in sports generally, in weightlifting, the evaluation of the overall preparation process is determined on the basis of the results achieved by athletes. Very often, failed attempts are the reason for unsatisfactory

results and dropping out of championships rankings. During the competitions, when struggling for leading places, athletes are put under great nervous tension. This is especially visible when competitors have similar strength abilities and the victory depends on successful initial attempts while the remaining attempts are of decisive tactical importance to prevail over the opponent (1-5). In the fight to win a medal, the correct distribution of strength efforts in every attempt is extremely important in every competitive situation to achieve a high sports result and demonstrates whether the level of preparedness of the weightlifter.

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The need to integrate new technologies in training and competition analysis is yet not fully comprehended. There are still under exploited opportunities for analyzing results from past

competitions and summarizing information as a tool for improving and enhancing sports achievements. Such practices should be implemented in sports pedagogical process as a routine tool in building the overall preparation process (6, 7). The attempts of weightlifters can be recorded on video and their errors tracked and analyzed in detail. Similar approach can be used for revealing different tactical options used by the opponents (6-8).

Participation in weightlifting competitions often requires precise body mass regulation. One of the main problems of sports disciplines with weight classes is maintaining body weight in tight ranges of several kilograms. Sometimes female competitors have to forcefully reduce their body mass, which also leads to a drop in competition results and could be one of the reasons for the unrealized attempts (9, 11). Some authors (2-4) recommend the weight of the bar for the first attempt to be about 10 kg less than the weightlifter's maximum result, a weight in lifting which she is completely confident. Very often, competitors overestimate their strength abilities and sports preparedness and this is one of the reasons for the large percentage of unrealized attempts.

Working hypothesis: We expect that, based on the established success rate of competitive attempts in weightlifting contests, guidelines and recommendations can be developed aimed

at minimizing the number of unrealized attempts.

MATERIALS AND METHODS

The aim of the present study is to reveal the success rate based on attempt record of the European Weightlifting Championships for female athletes in 2024.

To achieve this goal, we set the following tasks:

1. To establish the success rate of attempts in the snatch in the European Championship.
2. To establish the success rate of attempts in the clean-and-jerk in the European Championship.
3. To establish the ratio of realized and unrealized attempts of female weightlifters in the European Championship.

The contingent of the study consisted of 177 female athletes in 10 weight classes who participated in the European Championship in 2024.

As the main methodological approach, we used a system-structural analysis of the protocols of the European Weightlifting Championship held in 2024 in Sofia.

RESULTS

Over the decades, weightlifting has been evolving, adopting different weight classes: as of 2024 – 10 for women.

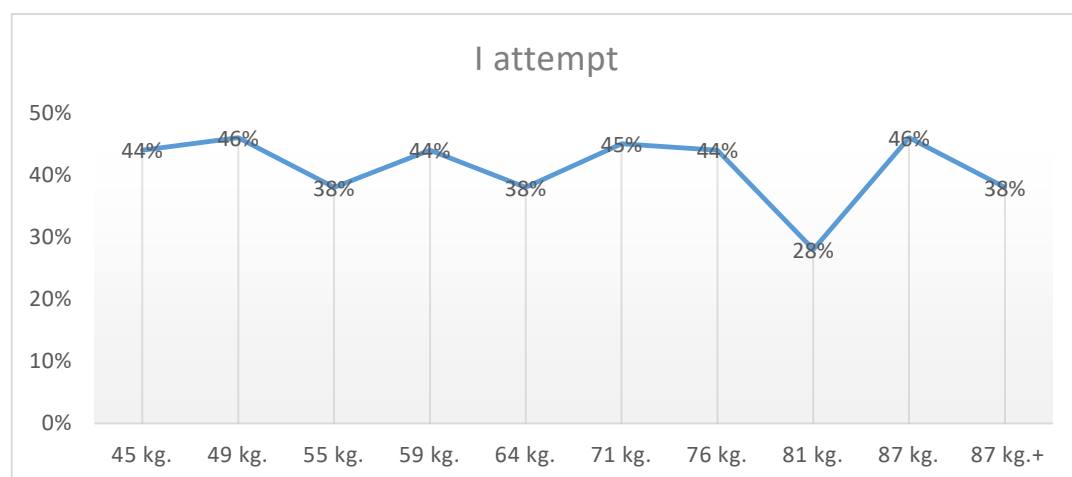


Figure 1. Success rate in the first attempts in the snatch in percentages

Figure 1 presents the data on the success rate in the first attempts in the snatch for all competitors who participated in the European Women's Weightlifting Championship in 2024 in Sofia.

In the figure we observe that the success rate in the first attempts of the snatch is the largest in two of the weight classes – up to 49 kg and up to 87 kg - 46%, and the smallest in the weight classes up to 81 kg – 28%.

Figure 2 presents the data on the success rate in the second attempts in the snatch by weight categories.

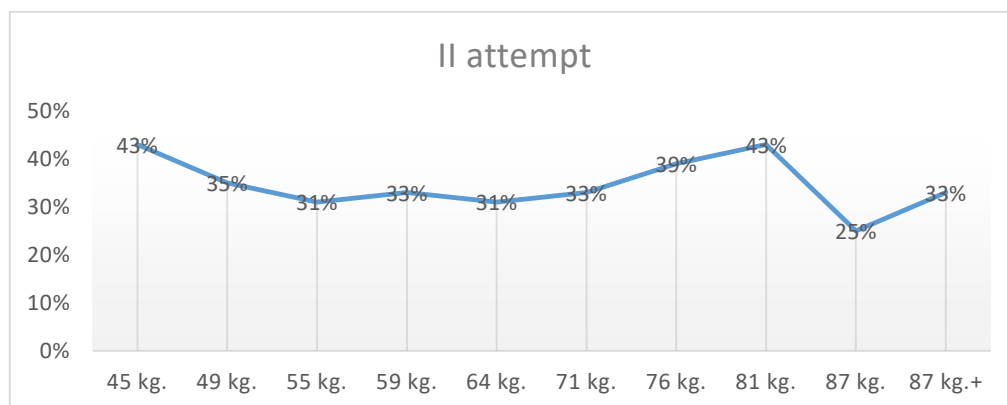


Figure 2. Success rate in the second attempts in the snatch in percentages

We found that the success rate in the snatch is the largest in two of the weight classes – up to 45 kg and up to 81 kg - 43%, and the smallest in the weight category up to 87 kg – 25%.

In Figure 3 we represent the data on the success rate in the third attempts in the snatch by weight categories.

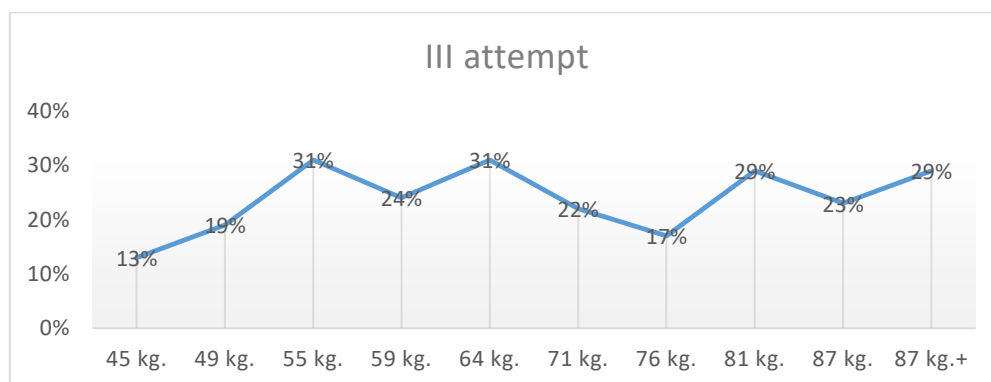


Figure 3. Success rate in the third attempts in the snatch in percentages

We observe that the success rate is the lowest (between 31% and 13%) in the considered categories. The obtained show that the average total success rate of the attempts in the snatch is 33%, the highest being in the first attempts of 41% on average for all weight categories,

followed by lower rate - 35% in the second attempts and – 24% in the third.

In Figure 4 we represent the data on the success rate in the first attempts in the clean-and-jerk.

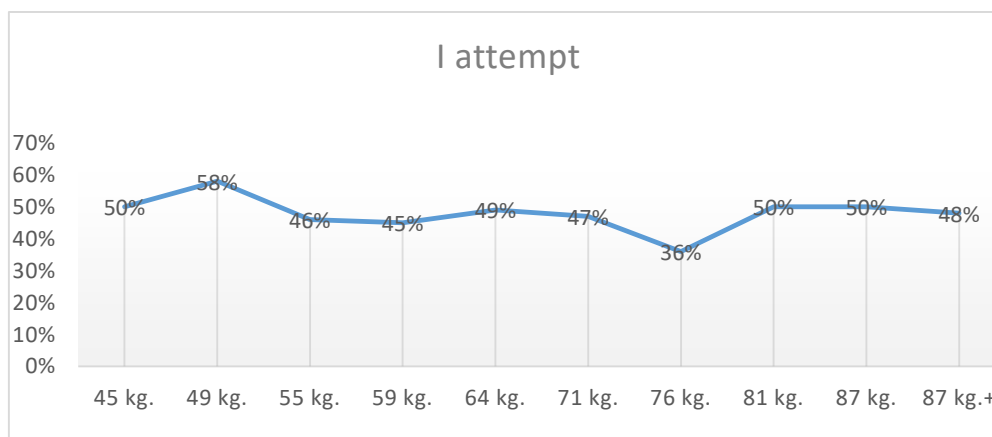


Figure 4. Success rate in the first attempts in the clean-and-jerk in percentages

As can be seen in the figure, regardless of the accumulated fatigue after the three attempts in the snatch, we observe that the success rate in the weight class up to 49 kg is the largest – 58%, and the smallest in the weight class up to 76 kg

– 36% with an average success rate for all categories of 48%.

Figure 5 presents the data on the success rate in the second attempts in the clean-and-jerk by weight classes.

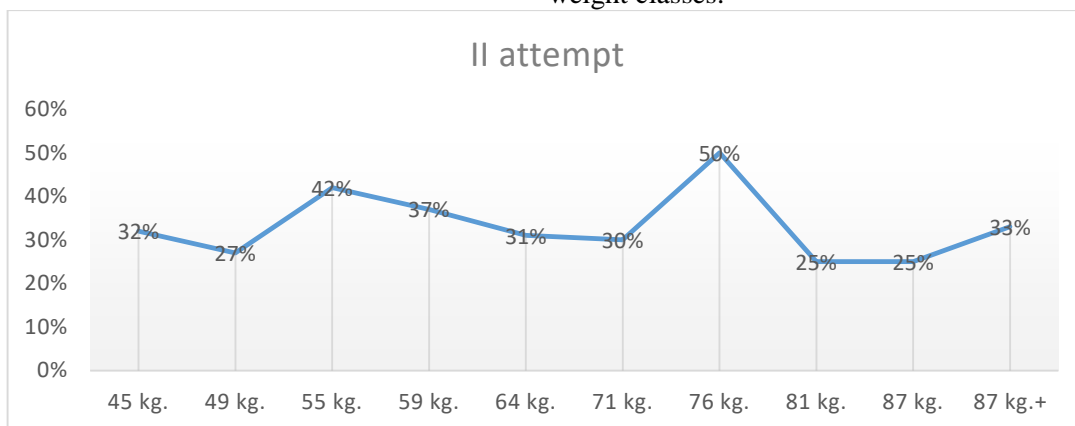


Figure 5. Success rate in the second attempts in the clean-and-jerk in percentages

We observe that the average success rate in the weight category up to 76 kg is the largest and the most probable reason is the larger number of unrealized first attempts in this class, while in the other categories the success rate is around or below 42%.

In Figure 6. we represent the data on the success rate in the third attempts in the clean-and-jerk by weight categories.

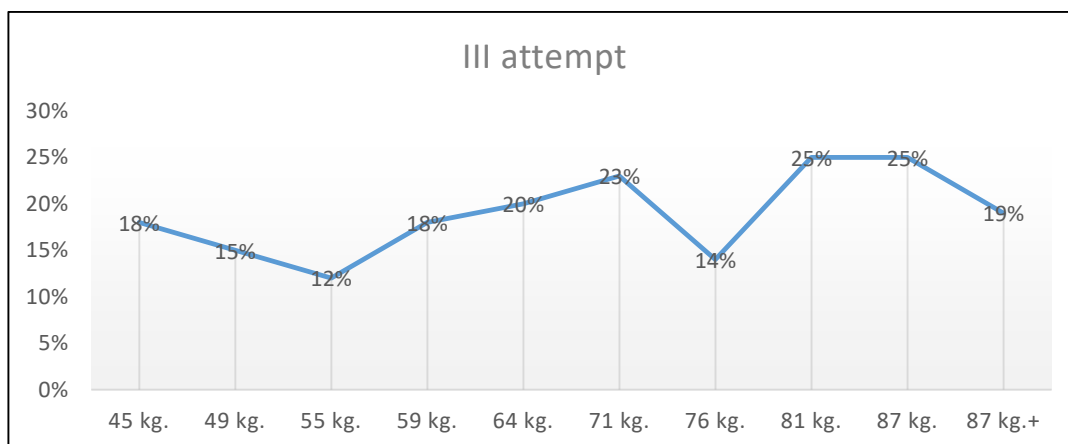


Figure 6. Success rate in the third attempts in the clean-and-jerk in percentages

We observe that the average success rate is the lowest – 19% in the third attempts – from 25% to 12% in the studied categories.

24% in the third. The same trend is observed in the clean-and-jerk for all weight categories: the highest success rate is found in the first attempts – 48%, followed by 33% in the second, and 19% in the third.

The obtained results on the dynamics of the number of successful first, second and third attempts (in %) in the two competitive movements for all weight classes show that the average overall success rate of attempts in the snatch for all weight categories is the highest in the first attempts - 41%, while in the next attempts it is smaller – 35% in the second and

In Figure 7 we represent the data in percentage ratios for the realized and unrealized attempts in the two competitive movements for all competitors who participated in the European Weightlifting Championship in 2024 in Sofia.

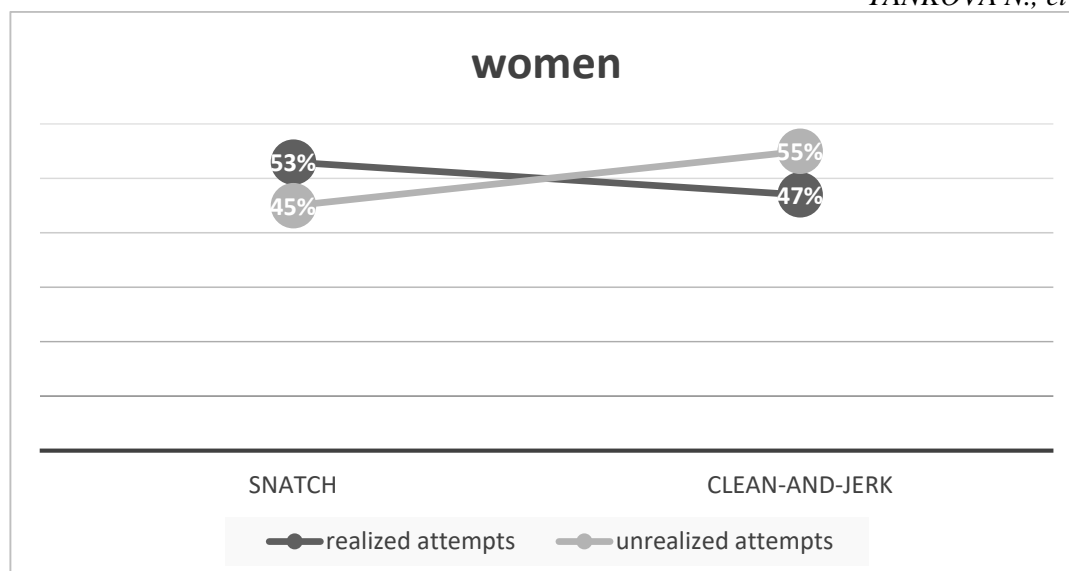


Figure 7. Percentage ratios for the realized and unrealized attempts in the two competitive movements for all competitors

DISCUSSION

The data show that in the snatch female weightlifters made more successful attempts than in clean-and-jerk with a difference of 2%. In both competitive exercises, we observe about 45% missed attempts of the weightlifting elite. Looking at the weight categories separately, we observe that the greatest number of successful attempts is achieved in the weight class of over 87 kg – 2 (68%) in the snatch and 1.9 (63%) in the weight class of up to 71 kg in the clean-and-jerk. In the total, 3.8 (39%) out of 6 (100%) successful attempts were realized in the weight category of over 87 kg for both competitive exercises.

The progressive increase in the differences in the success rate between the first, second and third attempts, in the studied athletes, shows that it is necessary to emphasize to be paid to their tactical preparation, and especially on their mental resilience.

The detailed analysis of the success rate of each competition exercise and of each attempt made confirms that when performing their initial attempts athletes most probably underestimate the weight on the barbell, the tactic gaps when adding weight to the barbell in each subsequent attempt, the effect of body mass reduction on sports performance, momentary mental state, etc. In the second attempts, the additions to the weight on the bar are very often beyond their capabilities, as they often overestimate their strength and capabilities. We find the greatest number of unrealized attempts in the third ones

because they competitors aim to a record weight.

CONCLUSION

In general, the differences between average values of the success rate in both competition exercises, and in the attempts considered separately among all weightlifters are maintained within a thin value interval. Taking into account that in a competition, the clean-and-jerk is performed after the snatch on the background of the onset of nervous and physical fatigue, we find 2% less realized attempts.

In our opinion, the great number of unrealized attempts is a result of the extreme mental tension, the underestimation of all the components of the competitive situation, the lack of compliance with the momentary state and capabilities of the competitors, the lack of a specific tactical plan.

We also think that in the second and third attempts, the athletes do not realize their potential, due to the larger jumps in to the weight of the bar, which is often neglected by the coaches and this is one of the reasons for the differences in the success rate of the attempts. The reasons for the failed attempts can also have a different origin: increased excitability, reduced body mass, physically unpreparedness for the weight of the barbell, large jumps in the addendums to the weight of the barbell in the second and third attempts.

It is crucial for the coach to assess in advance the nature of athlete's momentary physical

abilities and to know and study the different tactical options of the opponents (e.g. by analyzing video recordings of the opponent's participation in similar competitions), which would give the opportunity to apply different tactical options during sports preparation and competition.

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