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TACTICAL TRAINING AS A COMPONENT OF SPORTS  
TRAINING OF STUDENTS PRACTICING POWERLIFTING

Abstract. This article is a scientific research based on the analysis of literature sources. Tactical training is a component part of sports training, including powerlifting. The article discovers the peculiarities of tactical training in powerlifting, including for students. 
Keywords: tactical training, sport, powerlifting, students.

As previously mentioned, powerlifting is a representative of "strength" sports which consists of performing competitive exercises in a single repetition but with maximum weight. Considering that there are three competitive exercises: barbell squats, bench press, and deadlift, this sport is also called a strength triathlon. The powerlifting competition is an individual test, and athletes compete in weight categories. The winner is the athlete with the highest amounting weight in the three competitive exercises (Solodovnik E.M. & Sorokina K.A., 2019).

As a component part of sports training, tactical training, which according to the author Gorin K. (2020) is given special attention at the moment in the performance sport, is also present in powerlifting.

Research objectives. Analysis of tactical training in powerlifting; creating recommendations for students practicing powerlifting.

Methods of research. Analysis of practical-methodical sources through theoretical research methods: analysis and synthesis, induction and deduction, comparison and generalization.

The results of the research and their analysis. In general, tactics in sports are treated as the intentional modification of the athlete’s or the team’s actions in
order to achieve sports performance, while taking into account the conditions that arise during the competition (Dashinorboeva V.D., 2007). In the same context, the authors Koshelev V.F. et al (2015) state that tactics are the art of "conducting the fight" (the competition) including the ability to make the most of personal possibilities in order to achieve the highest possible sports results. The authors also suggest the idea that the study of the theoretical bases of sports tactics, the possibilities of opponents, the competition regulations, the education of tactical thinking are the basis of the tactical training process (Koshelev V.F. et al, 2015).

The realization of interactions between opponents within a competition but also of the actions mentioned above is closely related to processing the information emerged from the reactions to the acute situations within the competition. That is, it depends directly on the thought process Gorin K. (2020). In the same vein, Mukhamedyarov N.N (2019) states that the basis of tactical actions are the thought processes that are manifested by identifying solutions to the proposed goals based on existing experience and information. During the competition, the time to identify solutions is limited and made difficult with having to choose between "desire" and "fear of failure", therefore the speed of solving tactical objectives will be enhanced by improving the ability for automatic heuristic search. In addition to those mentioned above, the author notes that the characteristic of strength sports is the concentration of attention and intellectual-volitional effort, which involves the development of tactical thinking (Mukhamedyarov N.N., 2019).

If in such types of sport as football, volleyball, basketball, wrestling, martial arts and others the result of the match or meeting depends on the tactical procedures or various tactical actions of attack, defense or counterattack planned by the coach and performed by the athlete or staff, then in strength sports events such as powerlifting, weightlifting competitive tactics will depend directly on knowledge of competition regulations. In the same context, Sheiko B.I. and Sarichev K.I. (2018) emphasize that tactical training includes knowledge of competition rules, analysis of opponents' participation, accumulation of skills that allow to apply personal tactics in subsequent competitions, modeling in training or competitions situations necessary for learning the elements of tactical combat (Shejko B.I. & Sarychev K.I., 2018).
Following the theoretical analysis, a series of recommendations was created for tactics and tactical training in powerlifting, relevant also for students.

Next we will present a series of situations, which, in our opinion, are related to the competition regulation. Knowing them will positively influence tactical training.

1. **Weight category limits and body weight adjustment before the official weigh in.** According to the Regulations of the International Federation WDFPF Book 3 Section 4.1 p.14 2019 Edition (http://www.wdfpf.co.uk/news/news.php) the limits of the weight category are as follows:

   **Table 1**

<table>
<thead>
<tr>
<th>Weight category</th>
<th>Weight category limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>-52.0 kg</td>
<td>Up to 52.0 kg</td>
</tr>
<tr>
<td>-56.0 kg</td>
<td>from 52.01 kg up to 56.0 kg</td>
</tr>
<tr>
<td>-60.0 kg</td>
<td>from 56.01 kg up to 60.0 kg</td>
</tr>
<tr>
<td>-67.5 kg</td>
<td>from 60.01 kg up to 67.5 kg</td>
</tr>
<tr>
<td>-75.0 kg</td>
<td>from 67.51 kg up to 75.0 kg</td>
</tr>
<tr>
<td>-82.5 kg</td>
<td>from 75.01 kg up to 82.5 kg</td>
</tr>
<tr>
<td>-90.0 kg</td>
<td>from 82.51 kg up to 90.0 kg</td>
</tr>
<tr>
<td>-100.0 kg</td>
<td>from 90.01 kg up to 100.0 kg</td>
</tr>
<tr>
<td>-110.0 kg</td>
<td>from 100.01 kg up to 110.0 kg</td>
</tr>
<tr>
<td>-125.0 kg</td>
<td>from 110.01 kg up to 125.0 kg</td>
</tr>
<tr>
<td>-145.0 kg</td>
<td>from 125.01 kg up to 145.0 kg</td>
</tr>
<tr>
<td>+145.0 kg</td>
<td>from 145.01 kg up to unlimited</td>
</tr>
</tbody>
</table>

In the basic training stage, athletes grow additional muscle/body mass, exceeding the limits of weight categories, a fact that increases performance in relation to the growth of strength. In the pre-competitive - competitive period, more precisely with 1-2 weeks before the competition date (depending on the number of kilograms), athletes start adjusting their body weight according to the weight category in which they want to compete. One aspect of tactical manipulations would be maintaining body weight or adjusting it around competitions.

In her doctoral dissertation Perfilieva E.V. (2010) mentions that the decrease in body weight is often influenced by competitive tactics. Based on the statements of a number of authors, this author emphasizes that reducing body weight in combat
sports by 3-5% has a positive effect on: coordination of movements, special physical performance, increasing speed of movement and strength. However, in the conclusions of her thesis (Perfilieva E.V., 2010, p. 137) the author deduced that in powerlifting competitions the decrease of the sports result is proportional to the amount of intentionally reduced body weight. Noting that the values of the basic physical quality, strength, which, is manifested in this sport, decreased in 47.3% of the examined athletes, in 43.5% there were no changes and only in 9.2% there were increases. Moreover, the decrease of the body weight by $1.6 \pm 1.9$ kg led to the worsening of the sports result by $12.9 \pm 16.7$ kg. This thesis’ recommendations describe tactics for adjusting body weight that do not exceed 5-6% and must be started approximately 12 days before the competition.

An obvious difference attributed to "strength" sports compared to other sports is that it is not recommended to use cardio exercises for a deliberate decrease in body weight, the basis of the program being manipulations with diet, sauna, massage, etc.

2. **Official weigh in.** According to the Regulations of the International Federation WDFPF Book 3 Section 2 pp.8-11, 2019 Edition (http://www.wdfpf.co.uk/news/news.php), for all international competitions the official weigh in takes place between 07:00 - 08:00 on the competition day. This 60-minute interval is referred to as the Standard Time for the official weigh in. Each athlete is entitled to only one weighing procedure. Athletes who fail to fall within the limits of the desired weight category during the Standard Time are given an additional 30 minutes to perform the weighing procedure repeatedly. If the athlete fails to fall within the limits of the desired weight category, they may opt for a higher or lower category, provided that the regulations for this are met and will not exceed the limits of the number of athletes representing a particular nation admitted in the given category (in the case of international competitions) or will be able to choose to participate as a "guest" meaning they will take part "without competition" (their result will not be recorded and will not be found in the overall standings).

3. **Drawing and assigning Lot Numbers.** According to the official website of the British Drug Free Powerlifting Association BDFPA (http://www.bdfpa.co.uk/), Rule Book, Book 3 p.9; p.12, during competitions, there is a drawing and assigning
of a Lot Number, regulating the order of the athletes at the official weigh-in, the examination of the equipment, and the determination of the athlete who must perform the attempt first in case of ordering the same weight.

4. Ordering weight for the 1st attempt (at the 3 tests: squat, bench press and deadlift) during the official weigh in, adjusting it and the time limit for doing so. Immediately after finishing the body weight assessment procedure, the athlete orders the first attempt weight in all three competition tests. This weight is allowed to be changed – increased or decreased - at least 5 minutes before each test, and only once for each test. It should be noted that the athlete is entitled to three attempts in the three competitive events and the minimum step in each weight order is 2.5 kg. If there are several rounds in a test, which takes place consecutively, the athletes in round 2 and the following can change the debut attempt with 5 attempts till the end of the running round. Reducing the starting weight by 20kg will result in the activation of the “trauma athlete” scenario, which will allow them to perform only one attempt (http://www.wdfpf.co.uk/news/news.php book 3 pp.11 - 12, 2019 edition). Athletes often use the fact of changing the starting weight. Thus misleading the opponents, they schedule a bigger or smaller weight at the official weigh in, and 5 minutes before the competition they modify the first attempt according to the strategy programmed for the competition.

5. The Round System and group forming. In all powerlifting competitions (including all international federations) the "Round" competition system is applied. It consists of the following: athletes are divided by torrents / groups and then start the competition, weightlifting increases progressively and athletes are invited on the platform according to the first attempts made after the procedure of body weight assessment. That is, the athlete who ordered the least weight is invited first and so on. Regardless of the successful or unsuccessful execution of the first attempt, the athlete waits for all opponents in the torrent / group to execute the first attempt. Subsequently, the second attempt is announced and all athletes perform it consecutively, keeping the progression of the weight on the barbell. The same is done for the third attempt (http://www.wdfpf.co.uk/news/news.php book 3 pp.11-12, 2019 edition).
The official website of the British Drug Free Powerlifting Association (http://www.bdfpa.co.uk/) Rule Book, Book 3, section 3, point 13 (a) states that torrents / groups are formed, if 15 or more athletes compete in a session. These athletes can be from the same weight category or include two or more categories which will compete in the same group but each with its own ranking. If there are several torrents / groups in a session, each group will perform all the attempts for the ongoing exercise, then move on to the next group without a break. As soon as all the torrents / groups have finished the ongoing exercise session, after a certain break (at the discretion of the organizers), the competition will move on to the next exercise.

6. *The tactic of warming up for the first attempt and the necessary time for that.* Powerlifting is a type of sport that manifests the physical quality of maximum strength, therefore the duration of physical activity (especially in competition) lasts less than 15 seconds and the dominant energy system is alactacid (Bompa T.O., 2016). Kapilevich L.V. (2011) provides the information that when performing a maximum strength activity lasting 8-10 sec, i.e. short time but high intensity, the main energy supplier is Creatine Phosphate. As for the rest between sets, Rodzher, V.E. and Thomas, R.B. (2012, p. 418) recommend 3-5 minutes and Sheiko B.I. and Sarychev K.I. (2018, p. 302) recommends 5 min rest for the intensity of 80-90% and up to 10 minutes for the sets of 90% and more than 100% intensity, a fact also confirmed by Eremina L.V. and Rykov S.S. (2014, p. 45). This rest interval is necessary for the restoration of the cardiovascular, respiratory system but also of the creatine phosphate reserves (Karkishchenko N.N. et al, 2014, p.18).

Taking into account the above, the athlete is in a situation where they must carefully follow the evolution of things and establish the following information: at what time the weight category in which they registered competes, how many torrents / groups there are, how many athletes are in the torrent / group in which they compete, what lot number they received, what body mass the opponents have etc. It also outlines the idea that the first attempt, in each exercise, must present a psychological, physical, tactical basis for starting the competition (Budarnikov A.A., 2012). This information will be useful in planning the duration
of the "warm-up" period for the first attempt. This is a very important thing considering that if the weight ordered was too high or the time for "warming up" was insufficient, according to the Regulations of the International Federation WDFPF Edition 2019 Book 4 Section 11 p.10, (http://www.wdfpf.co.uk/news/news.php) three failed attempts in one of the three tests (squat, bench press, deadlift) will lead to the disqualification / elimination of the athlete from the competition and from the general ranking.

The fact mentioned above, that in Powerlifting exercises are performed with significant weights, can become a source of trauma. The basic rule for preventing and reducing these situations is to perform a general "warm-up" before training / competition and a special "warm-up" before each separate exercise (Budarnikov A.A., 2012). An explanation of the special "warm-up" stage can be understood from the following example: the weight of 150 kg has been programmed for the first attempt, the athlete performs the general "warm-up". Then they start performing the exercise, but perform a series of sets with a weight that increases progressively from set to set - 20kg, 50kg, 70kg, 100kg, 120kg, 140kg and then 150kg. The number of repetitions in each set but also the number of sets depends on the purpose and training of the athlete, but a certain fact is that the more the intensity (weight) increases, the more the number of repetitions in the set decreases.

From the facts mentioned above and from the example of 150kg scheduled for the first attempt, the athlete has to calculate the time required for general warming up, but also for the special warm-up, where approximately 2-3 minutes of rest between sets will be programmed for the sets with 20kg, 50kg, 70kg, 100kg, and 1 minute for performing the exercise. And 5 minutes of rest between sets with 1 min for executing the 120kg and 140kg sets. Additionally, when calculating the warm-up time, it is important to take into account the 5-7 minutes for rest after the warm-up set with 140kg, before being invited for the first attempt with 150kg. Adding the necessary minutes for the warming up part of the 150kg attempt would be: 5-7 min for general warm-up, 15-16 min for the 20kg - 100kg sets and 15-17 min for the 120kg, 140kg sets and until the athlete is invited to perform the exercise. The total would be 35-40 min. Hence the importance of observing the competition in order to
fit in this scheduled time. Of course, this duration is estimated and there are athletes who schedule less time/sets or others that schedule more time and sets for the preparatory part. In this case, the experience of the athlete from previous competition lets them know their body and the time needed for warming up. We can firmly say that warming up in competition is a balance between preparing the body for maximum effort and not depleting the body’s reserves through too many sets of warm-ups, which will negatively affect the competitive result.

7. Ordering for the 2nd and 3rd attempts. Continuing Budarnicov A.A.’s recommendations (2012, p.83) mentioned above, that the first attempt provides a secure basis for the start of the competition, the author also states that the order for the second attempt must match the athlete’s personal record and the third attempt, in case if the second is successful, will be used to set a new personal record (Budarnikov A.A., 2012).

In this order of ideas, we can add that these attempts can be used not only to set a personal result but also for tactical play in order to rise as high as possible in the overall rankings. In order to be able to achieve this goal it is necessary to know the competition regulations. Therefore, according to the Regulations of the International Federation WDFPF Book 3 Section 3 pp.11-12, 2019 Edition (http://www.wdfpf.co.uk/news/news.php) the order for the second attempt is made after the execution of the first attempt. For this, 1 minute is allocated after the end of the attempt and is registered in a special blank at the table of the responsible referee. The same procedure takes place for the third attempt. If for various reasons the order for the next round fails to be recorded, the weight on the barbell will be the same if the previous attempt has been unsuccessful or will increase by 2.5 kg in the case of a previous successful attempt with a notice from the responsible referee. The order for attempt II and III cannot be less than that used in the previous attempts.

One of the most important moments for this part, which influences the tactical game, is the fact that the weighting ordered for the second and third attempts in the competitive exercises squat and bench press, once ordered, cannot be modified. Exception being only the third competitive exercise – the deadlift - where only in the third round the order can be changed twice. This can be changed in both
increasing and decreasing weight, provided that the athlete has not already been invited to the platform by the responsible referee or the weight is smaller than that performed by the previous athlete (Book 3 Section 3 pp.11-12, 2019 edition, http://www.wdfpf.co.uk/news/news.php).

8. **Preparing for the 2nd and 3rd attempt.** Depending on the number of competitors in the round, which can reach 14, the break between sets can reach 10-15 minutes (in some cases even more). Most athletes do not perform additional sets of warm-ups after the first and second attempt, using clothes, towels to create favorable conditions to maintain the proper tone and temperature of the muscular system. However, if the break between sets, for some reason, becomes too long, 1-3 sets with an intensity of 50-70% can be performed to restore excitability and muscle tone. This option will also emerge from the situation created during the competition and directly from the round but also from the athlete's experience.

9. **Time allotted for carrying out the attempt and leaving the platform.** In accordance with the Regulations of the International Federation WDFPF Edition 2019 Book 4 Section 2, Point 2, letter b pp.7-8, (http://www.wdfpf.co.uk/news/news.php) from the moment the responsible referee announces the name of the athlete who is invited to the podium they have 1 minute to execute the exercise, otherwise the attempt will not be validated. And another section of the same regulation Book 4 Section 13, p.11 mentions that after the execution of the attempt the athlete has 30 seconds to leave the platform otherwise it may lead to disqualification.

10. **Knowing the adversaries’ abilities, analyzing their performance in other competitions and / in the current competition.** In the formation of tactical actions, as previously mentioned by Budarnicov A.A. (2012) it is necessary to monitor the evolution of opponents in the given competition. In our opinion, if possible, and opponents are known for some time up to competition, it is necessary to analyze their evolution in other competitions as well, and the results recorded by them.

11. **The role of the coach in competition tactics.** Budarnicov A.A. (2012) states that it is unacceptable to participate in the contest alone. The coach or the staff, knowing the possibilities, abilities and training of the athlete, perform their tactics game in the
competition. But the coach must also show the right behavior to create a favorable psychological climate for the athlete so that they are able to realize their potential at maximum levels. Authors Klychkov K.E. and Sergeeva M.G. in their work (2019) state that the coach plays a very important role in sports training. In addition to the coach’s duties, they also fulfill the function of psychologist because the athlete is often in stressful situations, and the tactical and strategic behavior depends on all participants in this process. In the same vein, Samigullin R.V., Nazarenko L.D. and Timoshkin V.V. (2018) in their article consider the process as a system, which aims to achieve certain objectives consisting of subject, motivation, methods and techniques that are always being improved. Therefore, a series of elements that achieve their unification are determined within the joint activity of the coach and the athlete. In this case, the said element is the purpose which determines the means and methods of achieving it (Samigullin R.V., Nazarenko L.D. & Timoshkin V.V. 2018).

In sports such as powerlifting and weightlifting, the role of the coach is not limited to directing the preparation process (training). During the competitions, they are directly involved in the tactical game. In most cases, the athlete is concerned only with the execution of the exercises and the coach or the staff of coaches fully assumes the tactical struggle. In addition to this idea, there is a specification stipulated in the Regulations of the International Federation WDFPF Edition 2019 Book 3 Section 3, Point 5, p.11, (http://www.wdfpf.co.uk/news/news.php) where it says that the coach can decide and order the next weight for their athlete.

References:


