



THE ADVANTAGES OF USING THE MILITARY PENTATHLON IN PREPARATION FOR MILITARY COMBAT

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The contemporary operational environment in which the military carries out its military actions is a complex one and, therefore, requires the completion of an effective training program, a process of continuous education of the physical qualities and motor skills indispensable to the fighters. Therefore, the use of specific and associated means of sports training, customized according to the specific content of the military pentathlon, becomes extremely useful, because it has the role of improving the skills of the military and achieving maximum performance through them. Since its inception, the military pentathlon has been designed to help increase the level of physical training of the military and to capitalize on their ability to perform, a competition that was specifically related to physical, mental, intellectual, practical, creative abilities and leadership required of the military on the battlefield.

Keywords: military pentathlon; physical training; combat training; emotional behaviors; military physical education; CISM.

In 1946, the French captain Henri Debrus¹ conceived and promoted the idea of organizing a sports competition reserved exclusively for the army. The source of inspiration was when he studied a physical training program practiced by the military of the Dutch Air Force, which included means of action to improve motor skills specific to military activities, such as: parachuting, marching with the subunit, overcoming obstacles in a runway and carrying out operations for firing weapons or throwing hand grenades. Taking the Dutch method as a model, Captain Debrus eliminated the parachute jump and modified the other components, thus forming a perfect physical training system (for those times), designed to promote both specific and general physical condition.

In order to capitalize on the motor skills acquired by the military following this specific training program, Debrus organized the first competition the following year, which took place at the Military Training Center in Freiburg (Germany), in which teams of Belgian, French and Dutch armies participated. The improved regulations, resulting from the competition, were approved by the French military authorities, and the tests included in the competition were widely

adopted by all French armed forces under the name of the Military Pentathlon². Since then, the five tests in the military pentathlon (a complex application-military discipline) were:

- *the firing test* which consists in firing with the individual armament from the equipment at a distance of 200 meters, from the reclining position, on a target with circles (the largest circle having a diameter of 50 cm). Two shots will be fired as follows: 10 cartridges in 10 minutes (*Slow Fire*) and 10 cartridges in 1 minute (*Rapid Fire*), with a break between 1 minute shots. In order to simulate the conditions of the battle zone, the test will be carried out with the soldiers equipped in combat uniform, and the maximum score that can be obtained in shooting is 200 points;

- *the obstacle course test* which consists in traversing a route / track with a length of 500 meters on which a number of 20 standardized obstacles (for male soldiers), respectively 16 obstacles (for military of female gender) are arranged in a certain order. It should be noted that each of the obstacles can be related to a specific combat skill required in the operational theater. This is executed dressed in sports attire (in some local competitions combat attire is also used) and is the only and most important tool for developing skills for maneuvering on the battlefield;

- *the obstacle swimming test* which consists in going through a procedure / style of swimming

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at the choice of the distance of 50 meters, in the pool a number of 4 standardized obstacles being mounted in a certain order. This test can be seen as an essential skill for survival, and it must be performed in a bathing suit according to the established regulations, but it can be performed in certain situations and in combat attire (but without boots on);

- *throwing test* consisting of the counter-throwing of standardized hand grenades, to precision (during 3 minutes 16 grenades must be thrown on 4 circles, each with two concentric zones and the center arranged at distances of 20 meters, 25 meters, 30 meters and 35 meters from the throwing alignment) and at a distance (3 grenades in 2 minutes). Precision throws will be executed in a clearly regulated order: four grenades for each circle, from the nearest to the farthest and for female soldiers the distances of the arrangement of the circles from the throwing alignment will be reduced each by 5 meters. In order to simulate the conditions of the battle zone, the test will be carried out with the soldiers equipped in combat uniform,

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Starting in 1995, a new additional military competition derived from the military pentathlon was introduced. It is about *the relay with obstacles*, a competition organized in the eliminatory system and held simultaneously between two teams. It consists of an obstacle course (built so that two competitors can compete at the same time) by two teams, each made up of 4 male soldiers (respectively 3 female), whose competitors successively cross the distributed distance (five obstacles each), with the obligation to pass the baton to the next teammate.

International Military Sports Council (known by the acronym CISM) became interested in this project and began to promote this competition by organizing an annual international championship. After a modest start, in 1950, when only three nations entered the competition, the military pentathlon expanded in number of participants and became (especially in the last 20 years) one of the most important military competitions organized by CISM. However, the military pentathlon is not only one of the most remarkable sports competitions that take place in the



Figure 1 Aspects during the five tests of the military pentathlon, competitions organized at international level in the 50s³

and the maximum score that can be obtained at the precision throw is 136 points;

- *the test of running in various terrain* which consists in covering a route with a length of 8 km (for male soldiers), respectively 4 km (for female soldiers), will be performed in sportswear (at some

military system, but also has relations with the world of civil sports. In several countries, especially in the Nordic and Central European countries, civilian sports organizations have adopted the military pentathlon, organizing competitions with the participation of athletes from outside the military system.



The characteristics of the military pentathlon

From the very beginning, the military pentathlon was designed to help train the military based on competition between them and the fight against unfavorable elements in the environment, thus instilling a competitive spirit. Later, competitive participation between countries was moved to encourage cooperation and friendship between nations and to assess competence levels. Military pentathlon aims to train or improve physical skills (conditioned: speed, strength, endurance, flexibility; or coordination: reaction, pace, balance, orientation, adaptation, differentiation, synchronization), psychological (mental endurance, perseverance, confidence) and leadership (leadership, decision making, discipline).

The military pentathlon has its origins in military training, and the priority for specialists in the field of physical education is the challenge to produce effective military fighters, using new training methods. Complements and amendments to the regulations, improvements to sports facilities and equipment that are used in training or competitions have led to the creation of a sport that is no better than a civilian sports competition. Given the complex psycho-physical demands that competitors are subjected to, the military pentathlon is undoubtedly one of the combined poly-athletic competitions, and can be used to train the military around the world.

The characteristics of the military pentathlon are closely related to the role of the military and the essential tasks undertaken by the armed forces, being a combination of the ability to concentrate, physical endurance and psychological challenges. The one who masters all the events within the military pentathlon is the one who will excel both in sports and on the battlefield, predicting the versatility of the future military.

In the shooting test, the conditions of the battlefield are simulated by performing precision and speed shooting, thus testing the military's skills in knowing and handling the equipment. The obstacle course test tests the ability of the midfielder to perform an organized and fast movement on the field of operations, crossing 20 obstacles that reproduce in similar conditions the factors that prevent or hinder the performance of an action on the battlefield. On the other hand, the

obstacle course tests the military's water survival skills, causing him to swim a distance of 50 meters (a stream) and overcome certain obstacles, using any style of swimming and any crossing technique. The hand grenade launch test (precision and distance) determines the level of consolidation of an important motor skill for the military, and the varied terrain running test determines the military's aerobic effort capacity, which is necessary in case of sustained efforts and intense that can occur during a military conflict.

Given the skills that the military must have to perform physical activities, the military pentathlon can be attributed the following characteristics:

- the ability to concentrate in stressful situations is necessary during the firing of the individual equipment (especially during the second round, when 10 cartridges must be fired in 1 minute);
- the ability to concentrate completely on the motor gesture specific to the biomechanics of precision throwing and on the explosive power that the military develops when throwing hand grenades at a distance;
- the ability to tolerate some gastrointestinal problems (it is estimated that 30 - 50% of endurance runners have digestive problems with manifestations arising from exertio⁴), corroborated with the ability to develop a motor action in the shortest time, without the appearance of fatigue, dexterity, courage and the desire to take risks, during the obstacle course;
- aerobic exercise capacity at a high level and above-average willpower during the varied running test, which requires high demands on endurance (as well as motor quality), concentration and morale of the military.

In terms of developing the military's performance capability, the best results achieved in the five tests are continuously improved, with time or score records being broken each year. However, the winner of a military pentathlon competition will not be a specialist in one or two events, but rather a multi-sport military man with a multi-athletic training and a multi-purpose technical training, who will achieve the highest possible performance in all five trials.

The advantages of practicing military pentathlon

The explanation of the importance of the military pentathlon in preparing an army for



combat is best illustrated by the statements of Brazilian Colonel Paulo Roberto Ribas, who said that the modern fighter, as well as the elite athlete, depends on adequate psychological training that will allow them to evolve under pressure, to endure the pain, to focus on the tasks and to be persistent. They will participate in missions or competitions displaying a positive attitude and conveying calm and confidence. In this way, we must see in high-performance competitive military sport an economic solution for military training, comparable to the harsh realities of combat, as both require emotional, psychological and physical training. Military athletes can be trained to achieve certain goals, making the most of sports facilities, swimming pools, sports fields or obstacle courses, and emotional behavior can be trained and assessed by participating in competitive sports⁵.

It is also extremely important to understand how the activities of the military training program follow one another, in order to ensure that effective training takes place. Usually, any military mission is planned and carried out in three main phases (pre-mission, actual mission and post-mission), and general, specific and specialized physical training programs must be designed in accordance with the essential requirements of the mission to be met. Comprising most of the utilitarian-applied skills, the tests within the military pentathlon represent an admirable way to continue the physical development of the military during all phases of the mission.

Pre-mission training (pre-mission) involves training and maintaining skills, which makes the military pentathlon an excellent way to train, because the military strengthens its skills in a competitive environment, thus raising the level of physical training. On the other hand, post-mission training will be used to maintain / improve skills and level of physical training. During the mission, the motor skills involved in various combat situations (and which are found in military pentathlon tests) can be used to create automatisms and to develop the capacity for physical effort and specific motor qualities.

Structuring the stages of physical training of the military targeting specific events / actions on three training mesocycles and superimposing them on the three phases of the mission, mesocycles which in turn are formed as a guide of a series

of different or same type micro cycles (training, regulation of the specific task / role, execution of the exercise / mission in the field, recovery), is a special opportunity for the military pentathlon to be used as a force multiplier in the preparation for combat of the military.

Research done by some specialists in the field⁶ clearly shows that the various tests of the military pentathlon can contribute to military instruments, as follows:

- *Shooting*. This ability is essential for the military because, during missions, they are equipped with individual weapons with which they must execute fire quickly and efficiently, to cope with the integrated battlefield or unconventional forms and procedures of the enemy. Precision shooting is essential for survival and to prevent unnecessary injuries, especially in ever-changing environments (for example: military operations in a crowded urban environment);

- *Obstacle running*. This travel process is an excellent one to prepare the military for the more difficult areas that they will sometimes have to go through to get to their destination. It will also improve aerobic and anaerobic exercise capabilities, muscular endurance, muscular strength and agility. All technical procedures for overcoming obstacles are assimilated by a certain specific ability encountered on the battlefield and must be performed against a background of minimum energy consumption and a high degree of concentration;

- *Obstacle swimming*. A very important movement process that allows the military to acquire the basic skills of survival in the water (learning technical swimming procedures) and crossing certain obstacles that they may encounter along the way while swimming. It also improves aerobic exercise capacity, muscular endurance (the ability of the muscle to activate repeatedly over a period of time, at sub-maximum performance) and lung capacity (predictor of health and longevity) and, at most, more important for the military is that they overcome their aqua phobia (fear of water);

- *Throwing*. This ability improves spatial-temporal perceptions and significantly develops general coordination of movements, scapular girdle and arm muscles, speed of execution and reaction and "muscular sense", because the military must appreciate the distance to the target, its size and



shape. Throwing ability does not only apply to throwing grenades, but other materials can be used (such as: ropes, first aid kits, protective equipment, etc.) that must be handled in a safe and dry area, and this is essential when the military operates in a locality and must identify the targets for aviation or enter / neutralize certain unsafe areas (by using smoke bombs);

- *Running in various terrains.* This type of running is very useful for the military, as it forms a series of skills specific to running on different terrains such as structure, consistency or degrees of difficulty. In addition to the health benefits, running in varied terrain can increase self-confidence, relieve stress and eliminate depression. It will improve the capacity of aerobic effort, forming the basis on which all motor qualities can be developed. The reason why running in various terrains is better for the military than running on asphalt is that it improves proprioception⁷, preparing the body for contact with uneven surfaces. When running in varied terrain, the military never has a steady pace, which is why this form of movement is harder than a run on a flat surface, but for the military it is perfect because they will train on terrain similar to the environment in which they will act. At the same time, the military will become stronger, their endurance (physical and mental) will develop and their cardiovascular fitness will be greatly improved.

Given the psychological effect that an activity such as pentathlon has on the military, it has been established that there is a correlation between the emotional behavior of athletes who play sports and the military who participate in military operations⁸. Pentathlon can contribute to both the training of athletes and the training of the military by introducing modern concepts of sports psychology, simulating specific motor skills that are necessary for the successful conduct of military operations. Much emphasis will be placed on cognitive-behavioral interventions, which can be defined as psychological programs that use different techniques to provide learning, training, counseling and psycho-physiological development.

It is important that all physical activities are planned and carried out in close connection with the elements of combat, in order to develop the combat skills of the military. Some emotional behaviors, encountered during a military pentathlon

competition, could be developed and correlated with the military's combat environment. These were identified and structured into four broad categories, as follows: *psychological training, importance of motivation, emotional states/reactions, and leadership efficiency*.⁹

Psychological training refers both to the training of mental abilities, mental and concentration skills (improving leadership techniques, concentration, focus, attention development and motor skills), and to the training of self-control (improving emotional balance, motivation, confidence and stress control), all of which are essential skills for the military's survival on the battlefield. Through the cognitive system that promotes the human ability to adapt to the environment (shooting, running or swimming among obstacles, throwing grenades), the military will learn to organize and control their behavior in uncertain and unsafe situations. Therefore, in sports, the military's response to a certain stimulus is strongly influenced by the emotional behavior and the subjective analysis of the situation, and this aspect can directly benefit the military, when he is on the battlefield.

The importance of motivation refers to the fact that the military pentathlon can contribute by the nature of its competitive means, in the sense that athletes who are dedicated and motivated usually form winning teams. Motivation is an active, intentional process, focused on a specific purpose and that satisfies internal psychological needs (autonomy, competence and relationships) and / or depends on external sources (concrete or intangible rewards).

Some research has investigated the positive *emotional states/reactions* that are present among successful military pentathlon players while participating in a sports competition, identifying two characteristic behaviors among them¹⁰:

- a positive mental state, which involves being completely absorbed, focused and involved in physical activities performed at a certain point in time, as well as obtaining the pleasure of being engaged in that activity ("flow-feeling"). It has been noted that this condition is caused when you engage in physical activity to simply enjoy it (for pleasure and for fun). This helps to achieve success and emphasizes the following: repeated competition and pleasure will lead to the acquisition of basic skills that the military will need;



- a winning mental attitude that gives you the courage and strength not to give up when you set yourself a goal and encounter obstacles. The characteristics of this attitude (personal strength, confidence, courage, intelligence, work and perseverance) can be directly related to that of the military on the battlefield.

Leadership is defined as the ability to act on a person or group to achieve a goal in any circumstance. *Leadership efficiency* in performing tasks refers to the fact that a team leader must have some essential traits (competence, motivation, communication and empathy), which are put into practice in a military pentathlon competition and which can be part of integrated training for fighting. The competence of the formal leader must be recognized by the informal leader of the team, because he is the one who has the recognition, with the help of which he gains influence over the actions of the military in his team. The personal motivation of the leader will influence and inspire the team members, and they will adopt the desired behaviors and will strive to achieve the goal at a higher level. Communication between the leader and the team must be effective and accessible to each other. Out of the need to improve performance, the leader must demonstrate empathy, a deeper understanding of each team member, and its leadership must be based on trust and mutual respect.

The psychological strategy for gaining emotional control during a military pentathlon competition (competing with athletes with multiple abilities) will require:

- the efficient performance of physical, technical and tactical training in order to function optimally and with maximum efficiency in the conditions delimited by the competition regulation;
- obtaining detailed information about the opponent (thus avoiding the fear of the unknown);
- the use of psychological strategies (emotional self-regulation, relaxation, motivation or stress management) to increase the military's self-confidence.

During physical, technical or tactical training, in order to improve the motor skills required in the tests of the military pentathlon, all the aspects described above can be used to differentiate between a winner and a defeated fighter. The best military pentathlon teams currently use strategies that focus on mental training, and their members

use their mental strength to increase their potential and always be one step ahead of their opponents. These techniques prepare the military to face challenges with determination, courage and calm and to improve the training of combat skills.

Conclusions

In conclusion, it is important to note that, without a doubt, all components of the military pentathlon could be used in their entirety to measure the level of competence of the military in the military. Ever since sport was considered a form of physical education achieved through competition (gradually delimiting itself as a separate form of motor activity), it has been found that athletes train much easier when they repeat, when they enjoy which they do when they compete against each other in a competition.

Thus, the high physical performance of combatants during a military operation is certainly the result of the integration of several training methods, including all types of military training (physical, technical, tactical, psychological, theoretical) and relevant scientific advances, involving the physiological and biochemical effects in the body, following the practice of specific physical exercises included in the training programs of the military pentathlon.

The use of the military pentathlon as a force multiplier in the preparation of the military for combat will guarantee that, within the armed forces, the military will build their ability to act regardless of their emotional state (self-discipline), will improve their basic motor skills and will be train to fight a diffuse enemy, acting by surprise and using asymmetrical means and procedures.

NOTES:

1 Later promoted to the rank of colonel and elected president of the International Military Sports Council (CISM).

2 <https://www.military-pentathlon.info/cms/military-pentathlon.html>, accessed on 09.06.2021.

3 <https://www.military-pentathlon.org>, accessed on 13.06.2021.

4 <https://nutritionist.info.ro/2021/06/01/dieta-fodmap-solutia-problemeleor-digestive-la-sportivi>, accessed on 13.06.2021.

5 P.R. Ribas, *Cognitive Interventions in High Performance Sportive: Can Sport Simulate Combat?*, Brazil Armed Forces, 2004, p. 10.

6 <https://sciendo.com/article/10.2478/bsaft-2019-0019>, accessed on 14.06.2021.



7 Orientation of the body and movements in space (the ability of muscles to contract and relax to stabilize the body depending on the situation).

8 P.R. Ribas, *op.cit.*, p. 15.

9 <https://www.military-pentathlon.org/Download/Military%20Pentathlon%20Training%20Aid%20RSA.pdf>, accessed on 18.06.2021.

10 <https://www.milспорт.one/medias/fdvprfiles.php?d=ZmljaGllcnM=&f=UkVWSVNUQV9TWU1QT1NJVU1fMjAxOV9RVUIUT19FQ1VBRE9SXzEucGRm&s=13ae325ce2a696d8c3158cc02ac139ca>, accessed on 19.06.2021.

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