

## **INTENSIFYING THE MOTOR CAPACITY OF MILITARY FIREFIGHTERS THROUGH BASKETBALL**

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### **Abstract**

The aim of this research was to identify new ways to attract and stimulate the body to maintain the capacity of the physical effort of the operational staff within the professional structures for emergency situations, namely military firefighters using the game of basketball.

The study was carried out on duty and had as subjects about 30 military personnel, to which a set of strength exercises performed on the specific equipment of the basketball game was applied. The military personnel involved were fully equipped with personal protective equipment consisting of nomex water protection suit, intervention boots/boots, seat belt, safety helmet, protective gloves, hood, flashlight and compressed air respirator.

After going through the motor circuit made and carried out on the unit's plateau, as well as when the weather conditions are unfavorable or in the cold season, respectively in the car garage, we can say that the staff on duty keeps their motor capacity at normal parameters to meet happy ending to the missions entrusted to you by the game of basketball. In this case, we can say that the exercises and circuits designed, as well as the conditions in which they were performed, can maintain the optimal level of physical training for military firefighters.

Keywords: firefighters, basketball, motor skills, equipment, ball

### **1 Introduction**

The physical education of the military firefighters from the Inspectorate for Emergency Situations "Nicolae Iorga" of Botoșani County, is an integral part of the instructive-educational process [5] which aims to train the skills and abilities of the military in handling accurately and quickly combat accessories and techniques. from the endowment, the carrying out of energetic, prolonged actions, in conditions of high temperatures, smoke and toxic gases and other unfavorable factors that appear during the intervention [9].

Specialized physical training must ensure the increase of motor skills of the staff, as well as the harmonization of teamwork, by going through circuits, individually or as a team, to develop the skills necessary to perform specific techniques and maneuvers, meaning that at the level of each unit will develop a series of motor circuits [10].

### **2 Objectives and purpose of research**

The aim of this research was to identify new ways to attract and stimulate the body to maintain the capacity of the physical effort of the operative personnel within the professional structures for emergency situations, namely military firefighters using the game of basketball with the objectives:

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- training and development of basic physical qualities: endurance, strength, speed, dexterity, as well as initiative, ingenuity, will, determination, self-confidence, courage, attention and ability to orient;
- training the skills to act quickly, accurately and safely, including in conditions of physical and mental fatigue;
- educating the spirit to act quickly, accurately and safely, including in conditions of physical and mental fatigue;
- educating the spirit of discipline, of collective action, of civic behavior and the formation of military attire;
- accustoming the military to the systematic practice of physical exercises and the simulation of their physical and mental resources [6], [7].

### 3 Methodology

The study was conducted on duty and had as subjects about 30 military personnel [8], to which the tactics and techniques specific to the game of basketball were applied. The military personnel involved were fully equipped with personal protective equipment consisting of nomex water protection suit, intervention boots/boots, seat belt, safety helmet, protective gloves, hood, flashlight and compressed air respirator. , the activity taking place on the training plateau of the Botoșani Fire Brigade.

They had to exercise in order to maintain physical condition and establish the level of motor capacity related to the scales and grades according to table 1, as well as to play a 3 to 3 basketball match [4].

Table 1 - Scales established for the level of motor capacity of military firefighters

Performance / time – min.	Base note	Note / Qualifier / Pulse		
+15.00	10	10 / Ex. / < 170	9.75 / FB / 170 180	8.75 / B / > 180
14.00 – 15.00	9,50	9,50 / FB / < 170	8,50 / B / 170 - 180	7,50 / B / > 180
13.00– 14.00	9,00	9,00 / FB / < 170	8,00 / B / 170 - 180	7,00 / B / > 180
12.00 – 13.00	8,50	8,50 / B / < 170	7,50 / B / 170 - 180	6,50 / C / > 180
11.00 – 12.00	8,00	8,00 / B / < 170	7,00 / B / 170 - 180	6,00 / C / > 180
10.00– 11.00	7,50	7,50 / B / < 170	6,50 / C / 170 - 180	5,50 / M / > 180
9.00 – 10.00	7,00	7,00 / B / < 170	6,00 / C / 170 - 180	5,00 / M / > 180
8.00– 9.00	6,50	6,50 / C / < 170	5,50 / M / 170 - 180	4,50 / NC / > 180
7.00 – 8.00	6,00	6,00 / C / < 170	5,00 / M / 170 - 180	4,00 / NC / > 180
6.00 – 7.00	5,50	5,50 / M / < 170	4,50 / NC / 170	3,50 / NC / > 180

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		170	180	180
5.00 – 6.00	5,00	5,00 / M / < 170	4,00 / NC / 170 180	3,00 / NC / > 180

Note: Grid for grading grades: E = 10; FB = 9.00-9.99; B = 7.00-8.99; C = 6.00-6.99; M = 5.00 - 5 99; NC = 1.00 - 4.99.

For safety reasons, it is recommended that performers do not run during the course or the game, following the dosage of the effort during it, taking into account the personal level of physical training, environmental conditions and the level generated by fatigue.

The research methods used are: studying the literature, direct observation, experiment, comparison, statistical-mathematical analysis [2].

### 3.1. Graphic representation of the route

Circuit times:

1. The firefighter is equipped with the respirator and air mask at the START line and performs a number 10 push-ups after which he lifts the basketball.



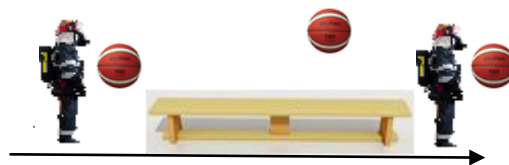
2. He walked a distance of 10 meters between the milestones beating the basketball on the ground.



3. Crossing the 6-meter gym.



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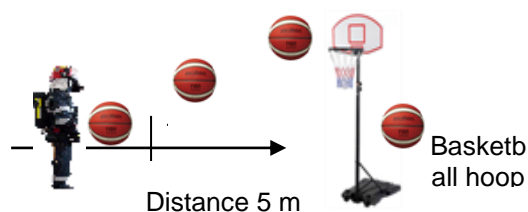
Gym bench 6 m

4. Jumping over fences with the basketball on his chest.



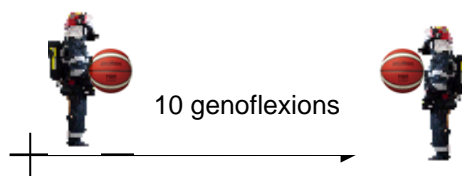
Athletics fences 6 pcs

5. The firefighter makes 2 throws to the basketball hoop from a distance of 5 meters.



Basketball hoop

6. After the execution of the 2 throws, he performs 10 genuflexions.



Finish

- The training consists in a BASKETBALL game, as follows:
- a flat surface area (subunit sports field) is required, marked by two areas (rectangular or square) that have a common line;
  - the participants are divided into two teams, equal in numbers 3 to 3;
  - a material base is provided consisting of basketballs, basketball hoop, stopwatch, whistle, vests, etc.;
  - the two teams face each other on the line, with the edges of the field evenly divided, are not allowed to cross the line and must pass/throw the basketball until they score in the basket;
  - the player with the basketball passes to a teammate or throws to the basket;

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- it is forbidden to touch the ball at the level of the feet;
- the game can end in two ways:
  - within a time set by the person conducting the training (between 5 - 15 min.);
  - until one team scores the most baskets/points during the match (21 points).

Figure no. 1 shows the demonstration scheme of the basketball game regarding the training and continuous development of the motor capacity of the intervention personnel.

Figure no.1- Demonstration diagram of the 3x3 basketball game

#### 4 Results and discussions

Following the exercise of maintaining the physical condition in order to establish



the level of motor capacity with a high degree of difficulty, we can say that the staff engaged in this activity has significantly improved their motor capacity, necessary to perform the tasks entrusted, according to figure no. 2.

Therefore, one of the basic factors for performing many motor actions is the ability to exert physical effort, which generally means the body's ability to perform mechanical work as high as possible and to maintain it for as long as possible. short, being necessary to fulfill the attributions and missions that belong to the personnel.

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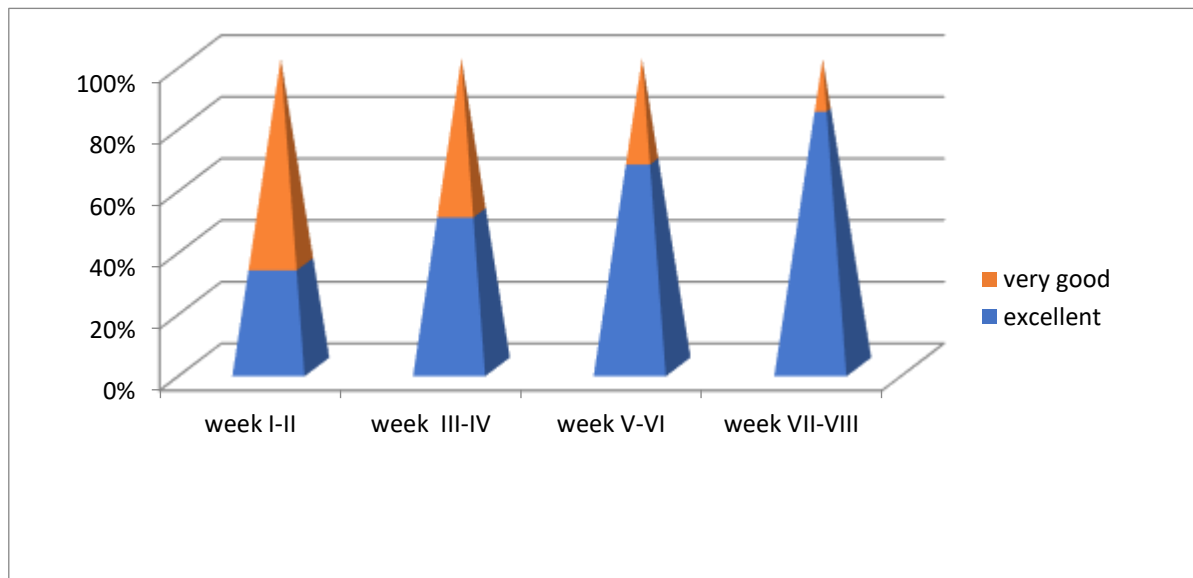


Figure no.2 -The evolution regarding the dynamics of the increase of the motor capacity by days/weeks

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