

CONSTRUCTION OF SPECIAL PHYSICAL FITNESS CHARACTERISTICS AND SCIENTIFIC TRAINING PLANS FOR MARTIAL ARTS SHORT-SOLDIER ATHLETES

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Abstract: Martial arts short-soldier sports is a competitive sport characterized by rapid offensive and defensive conversion and high-intensity confrontation, which puts forward high requirements for the special physical fitness level of athletes. With the continuous improvement of competition rules and the continuous improvement of competitive level, it is difficult for the traditional physical training model to fully meet the needs of the special development of martial arts short soldiers. On the basis of analyzing the characteristics of the martial arts short-soldier sports project, this paper systematically combs the core needs of the project for the special physical fitness of athletes, focusing on the special characteristics of physical fitness elements such as strength, speed, endurance, sensitivity and coordination, and combines modern sports training theory to construct a scientific physical training program that conforms to the laws of martial arts short-soldier sports. The research believes that clarifying special physical fitness characteristics and implementing scientific training are an important way to improve the competitive level of martial arts short-soldier athletes and extend their sports life.

Keywords: Martial arts short soldiers; special physical fitness; physical fitness characteristics; scientific training; training plan

1. Introduction

Artificial intelligence has become an essential component of contemporary criminal justice systems. From predictive policing and facial recognition to algorithmic risk assessment and automated evidence analysis, AI technologies promise efficiency and accuracy. However, their increasing use raises fundamental legal questions concerning Martial arts short-arm sports originated from the traditional Chinese martial arts short-arm technical combat form, and have been continuously developed and improved in the modern competitive sports system, and have formed a more standardized competition rules and training system. The project uses short weapons as the main confrontation tool, with a fast pace of competition and frequent changes in attack and defense, which puts forward high requirements for the special physical fitness level of athletes.

In the current training practice, the physical training of some martial arts short-soldier athletes is still based on general physical fitness, and the special targeting is

insufficient, which makes it difficult to effectively transform the physical advantage into the ability to compete. Therefore, in-depth analysis of the special physical fitness characteristics of martial arts short-soldier athletes, and the construction of a scientific and systematic physical training program on this basis, is of great significance to improve the quality of training and competitive performance.

2. (1) Characteristics of special forces

The special strength of martial arts short-soldier athletes is mainly reflected in the armed strength of the upper limbs, the core stability strength, and the support and stretching strength of the lower limbs. The strength of the upper limbs determines the speed and stability of offensive movements. The core strength helps to maintain body balance and achieve power transmission, while the strength of the lower limbs is the basis for rapid movement and change of direction.

(2) Characteristics of special speed and responsiveness

Martial arts short-soldier sports emphasize “opportunity” and “speed”, and athletes need to complete their judgments and react in a very short time. Therefore, the starting speed includes not only the speed of action, but also the reaction speed and the starting speed.

(3) Special endurance characteristics

During the competition, athletes need to complete explosive movements multiple times in high-intensity confrontations, which puts forward dual requirements for anaerobic endurance and aerobic endurance. The level of special endurance directly affects the technical stability of athletes in the later stages of the competition.

(4) Sensitivity and coordination characteristics

There are many changes in the movement techniques of martial arts short soldiers, complex movement connections, and high requirements for physical sensitivity and coordination. Good sensitive coordination ability helps athletes quickly adjust their body posture and complete the offensive and defensive conversion.

Fourth, the construction of a scientific physical training plan for martial arts short-soldier athletes

(1) Basic principles of physical training

Special physical training should follow the following principles :

First, the principle of specificity, that is, the training content should be closely integrated with the characteristics of the project ;

Second, the principle of systematization, reasonable arrangement of training cycles and loads ;

Third, the principle of step-by-step to avoid sports injuries ;

Fourth, the principle of individual differences, formulate training plans based on the characteristics of athletes.

(2) Design of special strength training plan

Special strength training should be based on functional strength training, combining equipment training and freehand training, focusing on the development of the coordination and cooperation of upper, core and lower limb strength, and improving the efficiency of strength output.

(3) Design of speed and sensitivity training plan

Through reaction training, quick start training and multi-directional movement training, athletes' movement speed and resilience are improved to make them better adapt to the rhythm of the game.

(4) Design of special endurance training plan

Interval training, confrontation simulation training and other methods are used to improve athletes' continuous combat ability under high-intensity confrontation conditions.

5. Implementation and guarantee of scientific physical training

(1) Training monitoring and load regulation

Through heart rate monitoring, training recording, etc., the training load is scientifically controlled to prevent overtraining.

(2) Recovery and injury prevention

Reasonably arrange recovery training and relaxation methods, pay attention to sports injury prevention, and ensure the continuity of training.

(3) Improving the professional ability of coaches

Strengthen coaches' learning of special physical training theories and improve the level of scientific training.

VI. Conclusion

Martial arts short-soldier sports have high requirements for special physical fitness, and special strength, speed, endurance and sensitive coordination are the key factors affecting competitive performance. Through scientific analysis of special physical fitness characteristics and the construction of physical training programs that conform to the rules of the project, it will help to comprehensively improve the competitive ability of athletes. In the future, empirical research should be further strengthened to provide more scientific theoretical support for the special physical training of martial arts short-soldier sports.

References:

1. European Commission. Ethics Guidelines for Trustworthy AI.
2. Surden, H. Artificial Intelligence and Law.
3. Ashworth, A. Principles of Criminal Procedure.
4. United Nations. AI and Human Rights Reports.
5. Legal scholarship on algorithmic accountability.