

Experimental Study on Chinese Athletes' Physical Distribution in Sanda Competition

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Abstract

Reasonable distribution of physical strength plays a very important role in adversary Sanda competition. According to the physical characteristics of Sanda athletes, this paper studied the physical distribution during Sanda competition. The results are as follows: a) If an athlete's opponent is physically stronger, then he is not supposed to be recklessly but to take defense-oriented strategies. The athlete has to avoid the opponent's heavy blow and seize the opportunity to accurately counterattack. b) If his physical strength is equal with the opponent's, the athlete is supposed to maintain self-physical strength, and try to consume opponent physically. c) If the athlete is physically stronger, then he should actively attack, but not rampage. Two specific tactics are proposed: i) try to consume the opponent's strength if the opponent is very easily excited or impetuous; ii) try to use defensive strategies if the opponent less attack.

Key words: Sanda; Physical; Distribution

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INTRODUCTION

Sanda is a kind of sports of wits and courage in specific time and space. Sanda also needs high intensity, long intermittent, fast attack and defense conversion, and only to win with advantage. Sanda is an adversarial program demands specific time, space and physical characteristics (Wu, 2011). It requires athletes in each game to hit the opponent as much as possible, and pay attention to keep a dynamic balance maintaining center of gravity while forcing the opponent to lose balance in order to obtain advantages victory, or hit the opponent as much as possible in order to win points. Therefore, correct analysis of self- physical compared to the opponent's has great effects on the results of the game. This paper research on how to distribute the game in Sanda discusses physical, expect draw some guidance on ways and means, for your reference. This paper discusses the physical distribution in Sanda Competition through experimental research and promotes some guidance.

1. ORIGIN AND DEVELOPMENT OF SANDA

Since 1979, Sanda slowly began to become popular. In the past thirty years. With the development of Sanda and combat sports exchanges all over the world, now Sanda has become not only official event of the World Wushu Championships, Asian Games, Asian Championships, Games and National Championships, but also of female Sanda Competition, Wushu Sanda World Cup and a variety of commercial competitions. Sanda now has a good impact across the world with the worldwide spread (Zhao, 2011; Li, 2011).

Sanda is a form of Wushu, which is an ancient Chinese sport. Technologically speaking only, Chinese Sanda worthy of the profound praise, contains all the technical

content of wushu combat action all over the world. However, according to various different rules of current international games, Chinese athletes are supposed to get more technical skills from other countries, such as the bold and vicious force of Muay Thai, which needs a lot of exercise training to improve the players' ability to fight.

2. AN IMPORTANT COMPONENT OF SANDA: PHYSICAL FITNESS

"Physical" is originally translated from "physical fitness" (National Taiwan Normal University Physical Education Research and Development Center, 1987, pp.46-59). Broadly speaking, it refers to the athletes' necessary integrated embodiment of all kinds of sports abilities, in order to improve the level of Sanda sports skill, tactics and create excellent performance in the game. In a narrow sense, Sanda physical means that Sanda athletes' maximum mobilization of organism function ability for its ability to fight the body fatigue in training and competition. To some extent, this ability is Sanda's special endurance, or physical strength.

Physical strength is an important part of the fight against ability and also the basis of technical and tactical training. As a direct antagonism project with great strength, high density continuous attack and defense, Sanda puts forward very high requirements on the athletes' physical.

According to Sanda Competition Rules, domestic and abroad Sanda competition (except commercial and team competitions) are adopted two out of three sets. Win the first two rounds (dominant victory except) win the game, with net for two minutes, rest a minute.

In this competitive project of high strength and density tonal adversarial attack and defense, athletes should be properly analyze the opponent's physical condition, and carry out a reasonable allocation to achieve lasting anti-war purposes, and ultimately win the game.

In recent years, many athletes at the start of the game ferocious attack just like a lively dragon and an active tiger in national Sanda competitions. However, after two, especially in the third round, physical strength drops obviously, some athletes even lose defensive strength. 1985, Sanda competition held in Taiyuan, Shanxi. In the final game of 60 kg category, the athlete from Shandong VS Li Baogui, who is from Tianjin. At the beginning, the athlete from Shandong overwhelmingly prevails against Li Baogui by attacking continuous with superb skills. However, thanks to the reasonable physical distribution, Li Baogui seized the opportunity in the third game to strongly fight back and finally defeated the defending champion, winning the laurel.

In recent years, there are many athletes losing the game because of irrational physical distribution in

the Wushu challenge cup held by Henan TV. In the competition with foreign athletes, especially the high level athletes compared with foreign athletes, this gap is more outstanding.

There are so many examples which illustrate how important that athletes' physical distribution is.

Some athletes' distribution of is Cop-out. They simply take attack without analyzing their opponent's tactics or physical strength, and also neglect their own physical condition. So, that they are likely to lose.

To solve this problem, we have to combine technical characteristics and project requirements of Sanda, and attach importance to the physical quality training so as to improve the athlete's physical strength. Only in this way can we enhance the overall competitiveness and compete at a high level in a leading position (Li, 2011).

3. PHYSICAL DISTRIBUTION EXPERIMENTS IN SANDA COMPETITION

Sanda is one kind of competition which requires high strength and short time. Athlete's physical ability level is the key to ensuring a multi-cycle and high-load exercise intensity for athletic competition (Li, 2011), while physical distribution plays a very important role during the game. How to correctly allocate physical strength has a great impact on the result of the game. To address this issue, the following experiments are conducted. To solve this problem, the following experiment was performed.

3.1 Subjects

6 Free combat male athletes, aged 23 ± 1 ; training period of 2-3 years, height 175 ± 2 cm, weight 67 ± 2 kg, all the subjects were physical examined to be healthy.

3.2 Equipment

Stopwatch and stethoscope

3.3 Methods

6 athletes were divided into three groups, a group of two.

Group I: The 1st was using offensive play; the 2nd was using defensive and defensive-back play to confront;

Group II: The 3rd was using defensive play, the 4th respectively attack and defensive play to confront;

Group III: The 5th was using the defensive back; the 6th was using attack and offensive play to confront;

Carefully observed the 2nd, the 4th and the 6th cases, subjects' attack speed and intensity was recorded, and their heart rates and the results of the competition was recorded too.

All experiments were repeated three times.

3.4 Results

The results are as follows:

Table 1
Results of Using Two Kinds of Plays With Three Different Types of Opponents

Red	Black	Number of rounds		Speed of attack	Intensity of attack	Heart rate (/15 seconds)	Result
No.1 attack	No.2 defensive	1	Repeat 1	Medium	Power	30	Poor
			Repeat 2	Medium	Power	29	Poor
			Repeat 3	Medium	Power	32	Poor
			Repeat 1	Medium	Power	30	Best
			Repeat 2	Medium	Medium	28	Best
			Repeat 3	Quick	Power	31	Better
	No.2 defensive	2	Repeat 1	Medium	Power	34	Good
			Repeat 2	Medium	Medium	33	Good
			Repeat 3	Medium	Power	34	Good
			Repeat 1	Medium	Power	32	Best
			Repeat 2	Quick	Power	31	Best
			Repeat 3	Medium	Power	32	Best
	No.2 defensive	3	Repeat 1	Quick	Power	39	Good
			Repeat 2	Quick	Power	37	Good
			Repeat 3	Quick	Power	38	Good
			Repeat 1	Quick	Power	33	Best
			Repeat 2	Quick	Power	34	Best
			Repeat 3	Quick	Medium	36	Better
	No.4 attack	1	Repeat 1	Quick	Power	33	Best
			Repeat 2	Quick	Power	32	Best
			Repeat 3	Quick	Power	33	Best
			Repeat 1	Medium	Power	30	Best
			Repeat 2	Medium	Medium	27	Better
			Repeat 3	Medium	Power	29	Best
No.3 defensive player	2	Repeat 1	Quick	Medium	34	Better	
		Repeat 2	Medium	Power	33	Better	
		Repeat 3	Quick	Power	36	Best	
		Repeat 1	Medium	Power	31	Best	
		Repeat 2	Medium	Power	30	Better	
		Repeat 3	Medium	Power	32	Better	
No.4 attack	3	Repeat 1	Medium	Power	37	Better	
		Repeat 2	Medium	Power	36	Better	
		Repeat 3	Quick	Medium	38	Better	
		Repeat 1	Quick	Power	37	Better	
		Repeat 2	Quick	Power	36	Better	
		Repeat 3	Quick	Power	38	Better	
No.5 defensive back type	No.6 attack	1	Repeat 1	Quick	Power	31	Best
			Repeat 2	Medium	Power	28	Better
			Repeat 3	Medium	Power	29	Better
			Rrepeat 1	Medium	Medium	32	Best
			Repeat 2	Medium	Power	31	Best
			Repeat 3	Medium	Power	29	Best
	No.6 defensive	2	Repeat 1	Quick	Medium	35	Better
			Repeat 2	Quick	Power	33	Better
			Repeat 3	Quick	Power	34	Best
			Repeat 1	Medium	Medium	33	Good
			Repeat 2	Medium	Medium	32	Good
			Repeat 3	Quick	Power	35	Good
No.6 attack	3	Repeat 1	Medium	Power	37	Poor	
		Repeat 2	Medium	Power	38	Poor	
		Repeat 3	Quick	Medium	39	Poor	
		Repeat 1	Quick	Power	37	Best	
		Repeat 2	Quick	Power	36	Better	
		Repeat 3	Quick	Power	38	Best	

Note: Results:best >better> good> poor.

The results showed that: when confronted with attacking players, if taking defensive tactics, the athletes almost try avoid the attack in the course of the game. At the first and second rounds, the athletes are being behind for a moment for the opponents are more physically active. When comes to the third round, the athletes speed up the attack while the opponents are physical exerted. However, it's a little bit late to shorten the gap, so in the end only a slight advantage to win the game. Another tactic—defense first and counter-attack, at the first round the athlete should defense first. Then the second round, strengthen the attack to avoid the disadvantageous situation. When comes to the third round, the athletes take advantage of the opponent's physical decline with full fight back. The first tactic is more useful for athletes to win the game when confronted with attacking opponents.

When confronted with defensive opponents, if taking attacking tactics, the athletes can maintain a good competitive state at the first round. They can take fast attack with responsive and flexible action. The athletes' physical decrease slightly in the second round but the attack maintained at a high level. Third round, the athletes are unable to organize an effective attack with physical decline and slow movement. So the result is just passable. If taking Counter-attacking tactics, the athletes and their opponents are against less in the first round. At the second round, the game intensity increased, but the attack is still slightly conservative. Third round they are to strengthen the attack and began to fight back. So the results are good.

If the athletes start attacking best as the opponents do, the game is extremely fierce at the first round. In the second round the fierce confrontation is still relatively intense, but the intensity of attacks slightly decreases with effectively attack reduction. When comes to the third round, with the physical decline, the athletes are unable to organize an effective attack and even lose defensive strength. Thus the results are poor.

When confronted with counter-attack opponents, if taking attacking tactics, the attack intensity is great but less effective attack in the first round. Second round, attack intensity remains at a high level and the fierce confrontation increases higher. In the third round, the game becomes even more intense and they are both to strengthen the attack with strong confrontational. But because of the physical strength consumption in the first two rounds, when comes to the third round, the athletes are exhausted. However, with the basis of the first two rounds, they are still getting slight advantage to win the game. Adopt defensive tactics, the first two rounds are peaceful; accelerate the pace of the third round, most physically consumed in this round. And the results are depending on the effective attacks taken by both sides.

CONCLUSION

I. Physical Distribution

a) If one athlete's opponent is physically stronger, then the athlete is not supposed to be recklessly but to take defense-oriented strategies. He has to avoid opponent's heavy blow and seize the opportunity to accurately counterattack.

b) If the athlete's physical strength is equal with the opponent's, he is supposed to maintain self-physical strength, and try to consume opponent physically. In the second round strive to score attacking actively instead of defense. At the beginning of the third round, defense for some time, and then fight back. Considerate the physical situation, seize the exact fight-back time. If the fight prematurely causes physical exhaustion in advance, then the athletes cannot hold on to the end of the game. If attacking too late will cause that there is a surplus of energy at the end of the game. Owing to much defense and lose of many points at first, they cannot win the game finally.

c) If the athlete is physically stronger, then the athlete should actively attack, but not rampage. When it comes to the second round, appropriate self-adjustment for later game to save energy is useful. Then at the third round the athletes can fast attack and not give their opponents any chance to recuperate.

II. Tactics Choice

At the beginning of the game, the athletes are supposed to know about the opponent's strength, skill level, personality traits and psychological conditions, etc., then to immediately form their own battle plan in mind. While during the game they have to keep analyzing opponents and always being ready to change tactics.

a) Try to consume opponent's strength if the opponent is very easily excited or impetuous. And try to use defense-oriented tactics with dodging opponent's attacks. Opponent's offensive last missing, their hitting power will be weakened with physical consumption, so fighting back at this moment is better. Technical, physically common and generally less offensive players in the game can be good at distributing their physical and focusing on defense skills can beat the opponents stronger in experience in the field.

b) Try to use defensive strategies if the opponent less attack. Try to use force, fake and real fight tactics. Which means first to come close to the opponent, using "The enemy advances, we retreat; the enemy camps, we harass; the enemy tires, we attack; the enemy retreats, we pursue" tactics with the fake attack and accurate strive. If the opponents counterattack, they can use funny pick play; maintain their strength, looking for opportunities to counterattack.

In the high confrontational Sanda competition, athletes should make rational physical distribution, and avoid unnecessary physical exertion, and try to seize the

opportunity to counterattack. This gives the weak a chance to beat the strong, and makes the strong to be stronger.

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