

# *Research on Psychological Regulation Strategies of Adolescent Badminton Athletes in Haikou Competitions*

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**Keywords:** Adolescent Athletes; Badminton Competition; Psychological Fluctuation; Psychological Regulation

**Abstract:** Badminton, as a fast-paced and highly confrontational individual sport, requires athletes to maintain stable physical state and excellent psychological quality during competitions. Adolescent athletes in Haikou are in a critical stage of physical and mental development, with immature emotional regulation ability and weak pressure resistance. In formal badminton competitions, they are prone to negative psychological states such as pre-match anxiety, mid-match tension, post-error frustration and distracted attention, which seriously restrict the stable display of their technical and tactical level and affect their long-term sports career development. Based on the psychological characteristics of adolescent badminton athletes and the actual situation of local competitions in Haikou, this paper summarizes the common psychological problems of young athletes in competitions, analyzes the internal and external influencing factors of psychological fluctuations, and puts forward targeted, operable psychological regulation strategies. The research aims to help Haikou adolescent badminton athletes effectively cope with competitive pressure, improve their on-the-spot psychological adaptability, maintain stable competitive state, and provide practical reference for coaches to carry out systematic psychological training for young athletes.

## **1. Introduction**

With the continuous popularization of mass sports and school sports in Haikou, youth badminton has developed rapidly in recent years<sup>[1]</sup>. Various municipal, district and school-level badminton competitions for adolescents are held frequently, which provides a large number of competition opportunities for young athletes and also puts forward higher requirements for their comprehensive competitive quality. Different from adult athletes who have mature psychological endurance and rich competition experience, adolescent badminton athletes aged 12 to 18 in Haikou are in a special period of physical and mental transition<sup>[2]</sup>. Their nervous system is sensitive and fragile, their emotional changes are volatile, and they lack sufficient experience in dealing with high-pressure competition scenarios.

In actual competitions, many young athletes often fail to perform their usual training level due to psychological problems<sup>[3]</sup>. Some athletes feel extremely nervous before the game, resulting in stiff movements and uncoordinated physical coordination; some athletes will be flustered and distracted after making occasional mistakes or falling behind in scores, leading to continuous errors; a small

number of athletes are overly eager for success, resulting in aggressive and irrational tactical choices. These psychological barriers have become a key bottleneck restricting the competitive performance improvement of Haikou youth badminton athletes. At present, most local badminton training in Haikou focuses on technical and tactical training and physical quality improvement, while ignoring systematic and personalized psychological regulation training<sup>[4]</sup>. Therefore, it is of great practical significance to explore suitable psychological regulation strategies for Haikou adolescent badminton competition scenarios.

## **2. Common Psychological Problems of Haikou Adolescent Badminton Athletes in Competitions**

### **2.1 Pre-competition excessive anxiety and lack of confidence**

Pre-competition anxiety is the most common psychological problem among young badminton athletes in Haikou<sup>[5]</sup>. Most adolescent athletes have limited competition experience and pay excessive attention to competition results and external evaluations. Before the game, they are easily affected by many factors such as opponent strength, audience expectations and coach requirements, resulting in emotional tension, insomnia, loss of appetite and other physical and psychological reactions<sup>[6]</sup>. Some young athletes will repeatedly worry about making mistakes in the game and being criticized by coaches or parents, which makes them unable to concentrate on pre-competition preparation. In addition, individual athletes lack self-confidence due to insufficient training accumulation or poor performance in previous competitions. They will have a sense of fear before the game, underestimate their own strength, and be timid in subsequent competitions, unable to take the initiative to attack and display their usual technical level.

### **2.2 In-match attention distraction and emotional loss of control**

Badminton competition has the characteristics of fast ball speed, frequent rhythm changes and intense confrontation, which requires athletes to keep highly focused at all times. However, adolescent athletes have poor attention stability and anti-interference ability. In the process of competition, they are easily disturbed by external factors such as audience noise, referee judgment and opponent's competitive state, resulting in distracted attention. For example, athletes may miss the best hitting opportunity because of caring about the score gap, or be affected by accidental ball landing errors, resulting in confused thinking and disordered technical movements. At the same time, young athletes have weak emotional control ability. When they encounter adverse situations such as score lag and continuous mistakes, they are prone to negative emotions such as irritability, depression and impatience. These negative emotions will further affect their judgment and reaction speed, forming a vicious cycle of "emotional instability - technical error - worse mood".

### **2.3 Post-failure negative mentality and poor pressure resilience**

Most adolescent badminton athletes in Haikou are in the stage of school training, and most of their training and competition processes are protected by coaches and parents. They lack experience in setback education and pressure coping training. When they encounter failure in key competitions or lose points in critical moments, they are prone to extreme negative mentality. Some athletes will deny their own ability due to temporary failure, resulting in low self-esteem; some will be overly obsessed with the results of a single game, unable to quickly adjust their state to cope with subsequent games. In addition, in team competitions, individual athletes will have excessive psychological burden due to team honor pressure. Once they make mistakes, they will have a strong

sense of guilt, which seriously affects their subsequent competitive state and psychological adjustment ability.

### **3. Influencing Factors of Psychological Fluctuation of Adolescent Badminton Athletes**

#### **3.1 Individual physical and mental developmental characteristics**

Adolescence is a critical period for the development of human psychology and physiology. Physiologically, the physical functions of young athletes are not fully mature, and their physical endurance and anti-fatigue ability are limited. In high-intensity badminton competitions, physical fatigue will easily induce psychological irritability and attention decline. Psychologically, adolescent athletes' self-cognition is not perfect, their emotional regulation mechanism is not mature, and they are sensitive to external evaluation and competitive pressure. They cannot objectively view the gap between training level and competition performance, nor can they rationally treat competition success and failure, which makes their psychological state extremely vulnerable to fluctuations in the competition environment.

#### **3.2 Unreasonable training and competition arrangement**

At present, the youth badminton training system in Haikou is still dominated by technical and tactical training. Most coaches focus on improving athletes' hitting skills, running routes and tactical cooperation, but ignore the penetration of psychological quality training in daily training. Long-term single technical training makes young athletes adapt to the stable and relaxed training environment, but lack of simulation training for high-pressure competition scenarios. When they face the intense atmosphere, audience pressure and competitive confrontation of formal competitions, they cannot adapt quickly. In addition, some coaches and parents have excessive pursuit of competition results, put too much pressure on young athletes before and during the game, and repeatedly emphasize the importance of winning, which aggravates the psychological burden of athletes and induces negative competition psychology.

#### **3.3 Competition environment and external interference factors**

The formal badminton competition environment is completely different from daily training. The closed competition venue, dense audience, on-site cheers and boos, and real-time score update will form a strong pressure atmosphere for adolescent athletes. For young athletes with insufficient competition experience, such an environment is easy to trigger tension and anxiety. At the same time, uncertain factors in the competition, such as unexpected referee penalties, sudden venue wind speed changes in Haikou's coastal climate, and opponents' sudden tactical adjustments, will also break the athletes' pre-match psychological expectations, resulting in psychological tension and adaptive disorders, which affect the normal play of their level.

### **4. Targeted Psychological Regulation Strategies for Haikou Adolescent Badminton Athletes**

#### **4.1 Pre-match psychological adjustment: relieve anxiety and build confidence**

To solve the problem of pre-match anxiety and insufficient confidence, coaches should carry out targeted psychological guidance for young athletes 3 to 7 days before the competition. First of all, it is necessary to help athletes establish a correct competition view, let them understand that the core goal of adolescent competitions is to accumulate experience and improve abilities, not only to

pursue winning or losing, and reduce their excessive obsession with results. Secondly, carry out systematic pre-match simulation training, restore the real competition atmosphere, simulate the score lag, opponent suppression and other scenarios in daily training, let athletes adapt to the high-pressure competition environment in advance, and reduce the sense of strangeness and tension in formal competitions.

In addition, coaches and parents should give positive psychological hints and encouragement. They can communicate with athletes in daily spare time, affirm their training efforts and progress, and help them recognize their own technical advantages. Athletes can also be guided to carry out positive self-suggestion, repeatedly hinting at "I have sufficient training accumulation and can give full play to my level" before the game, so as to continuously enhance self-confidence. At the same time, coaches and parents should arrange reasonable pre-match rest and diet, avoid excessive training fatigue, ensure adequate sleep, and maintain a stable physical and psychological state.

#### **4.2 In-match psychological control: stabilize attention and regulate emotions**

Real-time psychological adjustment during the competition is the key to ensure stable performance of athletes. First of all, train athletes to master effective attention focusing methods. In the interval between scoring and serving, athletes can focus their vision on the racket and the opponent's ball movement, shield external interference such as audience noise and score pressure, and always keep their attention on technical and tactical execution. For the problem of emotional loss of control after mistakes, coaches can teach young athletes simple and efficient on-the-spot relaxation skills, such as diaphragmatic deep breathing and muscle relaxation. When they feel flustered and irritable, they can take 3 to 5 deep breaths in a short time to relieve physical tension and calm their mood quickly.

Moreover, coaches should guide athletes to establish process-oriented competition thinking in the game. Let athletes learn to ignore the temporary score gap, focus on every ball and every technical action, adjust their tactics timely according to the opponent's state, and avoid negative emotions caused by temporary errors. In the competition interval, coaches should give concise and positive guidance, avoid blaming and criticizing athletes for mistakes, help them quickly correct technical problems, and rebuild their competitive state.

#### **4.3 Post-competition psychological recovery: strengthen frustration tolerance and summarize experience**

Post-competition psychological adjustment is crucial to the long-term psychological growth of adolescent athletes. After the competition, whether winning or losing, coaches should organize athletes to conduct timely psychological summary and adjustment. For athletes who fail or perform poorly, it is necessary to carry out targeted frustration guidance, help them objectively analyze the reasons for failure, distinguish the problems of technical level, on-the-spot state and psychological quality, avoid their blind self-denial, and let them understand that failure is a normal part of sports growth. At the same time, coaches should affirm their efforts and excellent performances in the competition, encourage them to accumulate experience from failure and make targeted improvements in subsequent training.

For athletes with excellent performance, it is also necessary to prevent overconfidence and impetuous psychology, guide them to find their own deficiencies in the competition, and maintain a modest and rigorous training attitude. In addition, coaches should incorporate frustration resistance training and psychological resilience training into daily long-term training, regularly set up difficult confrontation scenarios in training, exercise athletes' ability to cope with pressure and setbacks, and help them form a stable and mature competitive psychology.

#### 4.4 Build a long-term psychological training system

Psychological regulation ability is not formed overnight, so it is necessary to build a long-term and systematic psychological training system suitable for Haikou adolescent athletes. Coaches should take psychological quality training as an important part of daily badminton training, arrange fixed psychological training courses every week, and carry out targeted training such as attention training, emotional regulation training and pressure resistance training according to the psychological characteristics of adolescents. Coaches combine with the coastal competition environment in Haikou, simulate the impact of wind speed, venue environment and other local characteristic factors on the competition, so that athletes can form stable psychological adaptability to local competition scenarios.

At the same time, strengthen the communication and cooperation between coaches, parents and athletes. Parents should change the concept of excessive pursuit of results, create a relaxed growth environment for young athletes, reduce unnecessary psychological pressure, and form a joint force of family and team psychological education. For athletes with prominent individual psychological problems, coaches need carry out one-on-one personalized psychological counseling, formulate exclusive psychological training plans, and continuously optimize their competitive psychological quality.

#### 5. Conclusion

Psychological quality is an indispensable core quality of adolescent badminton athletes' competitive ability. The immature physical and mental development, single training mode, excessive external pressure and special competition environment lead to various psychological problems such as pre-match anxiety, in-match emotional fluctuation and poor post-match frustration resistance among Haikou adolescent badminton athletes, which seriously affect their competitive performance and sports growth. In view of the above problems, coaches and sports trainers need to take pre-match adjustment, in-match control and post-match recovery as the core, build a full-cycle psychological regulation system, integrate psychological quality training into daily technical and tactical training, and combine the regional competition characteristics of Haikou to carry out targeted psychological simulation and guidance. Through scientific and personalized psychological regulation strategies, young athletes can effectively relieve competitive pressure, stabilize their on-the-spot state, improve their psychological resilience and competitive adaptability, so as to continuously improve their comprehensive competitive level and lay a solid psychological foundation for their long-term sports development.

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