A preliminary study on constituent factors of aerobic gymnasts' expressiveness

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Abstract: By using comparative analysis, observation, literature review and other research methods, this paper conducts a preliminary exploration on the constituent factors of expressiveness of competitive aerobic gymnasts, defines "expressiveness" and clarifies the correlation between expressiveness and athletes' competition performance. It concludes that the expressiveness of competitive aerobic gymnasts mainly consists of six elements: psychological quality, music comprehension, physique, movement quality, artistic arrangement of complete sets of movements and special physical fitness. Based on the above theoretical results, suggestions such as strengthening information feedback, simulating competition scenes, and improving athletes' strength, speed and flexibility are put forward, to provide theoretical basis for the further development of expressiveness of Chinese competitive aerobic gymnasts.

Keywords: Expressiveness, Competitive Aerobic Gymnastics, Athletes, Constituent Factors

1. Introduction

This paper takes the expressiveness of competitive aerobic gymnasts as the research object, sorts out relevant definitions of competitive aerobics expressiveness, explains the relationship between competitive aerobics and expressiveness combined with event-group training theory, and analyzes the constituent elements of expressiveness from the dimensions of psychological quality, integration of movements and music, physical conditions, movement quality and artistry of complete-set choreography. The study finds that expressiveness is a key factor for competitive aerobic gymnasts to score in competitions and determine the outcome of matches, and it is a comprehensive reflection of athletes' internal literacy and external movement presentation. Accordingly, it proposes to learn from training methods of other difficulty-beauty event groups and adopt training modes such as simulated competitions and information feedback to improve expressiveness. It also points out that influencing factors of expressiveness need to be further explored to provide theoretical references for improving athletes' competitive performance.

2. Results and analysis

2.1. General definition of expressiveness in competitive aerobics

With the rapid economic development, science and technology have been further deepened and upgraded. Technology exerts an increasingly important influence on sports, and competitive sports are now in a booming period, where the rise supported by technology has become an irreversible trend. As Mao Yong stated in “A Brief Discussion on Expressiveness of Competitive Aerobics”, "As forms of art such as dance, fine arts and music, artists must express the inner emotions contained in artworks through their unique artistic forms to arouse people's resonance. This ability to express certain thoughts through specific forms is called expressiveness." The rules of competitive aerobics clearly define expressiveness as an ability reflected by the combination of multiple factors. As a major factor in scoring criteria, the expressiveness of competitive aerobic gymnasts not only demonstrates the artistic value of complete sets of movements but also serves as a process of self-value realization. This paper quotes the definition put forward by Cheng Xisen in “Research on Expressiveness of Competitive Aerobic Gymnasts”: "On the basis of observation,

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cognition, imagination, comprehension and self-confidence, gymnasts interpret the expressiveness of competitive aerobics jointly through rhythmic body movements, eye contact and a series of changes in facial expressions."

2.2. Relevance between competitive aerobics and aerobics expressiveness

Competitive aerobics belongs to the skill-dominated difficulty-beauty event group. It features continuity, complexity and high intensity, and evaluates athletes' strength and flexibility. Like other competitive sports, it has a long development history. Originating from survival skills of ancient humans, it evolved into physical fitness activities with the improvement of living standards and economy and finally developed into a competitive sport for competition purposes.

As stated in Professor Tian Maijiu's "Event-Group Training Theory": among the new characteristics of competitive ability structure for elite athletes in skill-dominated difficulty-beauty event groups, although movement difficulty carries prominent value, emphasis should also be placed on movement quality and the improvement of athletes' artistic accomplishment. It can be concluded that expressiveness is an indispensable factor for competitive aerobic gymnasts to obtain high scores in competitions and one of the key factors determining match results, and it is affected by various elements.

2.3. Constituent factors of expressiveness of competitive aerobic gymnasts

2.3.1. Psychological quality

Firstly, psychological quality is a comprehensive reflection of personality traits and psychological abilities formed based on heredity, under the influence of education and environment, and through practical training. Psychological abilities include cognitive ability, psychological adaptability and internal motivation. Aerobic gymnasts should possess strong psychological adaptability, such as the capabilities of psychological response, competition cooperation, frustration tolerance, emotion regulation and behavior control. Only through self-understanding, improved frustration resistance and the establishment of a competitive mindset with self-confidence and courage to challenge can athletes maintain high passion and expressive performance on the arena, endow the complete set of movements with vivid vitality and remain invincible in competitions.

The characteristics of competitive aerobics determine that there is no direct physical contact between athletes and their opponents. Unlike heavy competitive sports, athletes achieve success through self-display, self-transcendence and effective mental adjustment during competitions, which is determined by the features of this sport. Competitive aerobic gymnasts tend to have outgoing and highly expressive personalities. They can maintain good self-control under complex conditions and strive for perfection when performing complete sets of movements, presenting dynamism, vitality, health and a modern style. The psychological quality of competitive aerobic gymnasts includes logical thinking and expression ability, stable emotions, sensitive perception, sound morality and healthy personality.

2.3.2. Embodiment of music by movements

The integration of movements and music exerts a vital influence on expressiveness. Majestic, lyrical and cheerful music styles can produce distinct and strong appeal to audiences. Whether the routine is choreographed according to the artistic conception of movements or the structure and melody of music, the movements must blend perfectly with the music. Only the harmony between the two can create aesthetic feeling and impress the audience. Appropriate music can improve the perfection of movements, make the routine more attractive and endow it with vitality. However, the perception of music largely depends on personal accomplishment and relevant educational background. Only professional audiences can understand athletes' careful consideration in music selection. Under the new rules, the maximum score for music and musicality is two points. Music should reflect the characteristics of competitive aerobics, and there should be strong consistency between routine performance and music selection. When interpreting music, performers should not only demonstrate rhythm, tempo and alignment with beats, but also interpret the smooth style, intensity and passion of music through body movements.

2.3.3. Physique requirements

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Competitive aerobics requires athletes' body forms to meet both the mechanical characteristics of movements and aesthetic standards. Therefore, this sport demands athletes to have graceful physiques. Physique consists of body type and posture. Posture refers to the external attitude presented by various body parts. Graceful posture can bring people aesthetic pleasure. Competitive aerobics is a sport featuring beauty (including form beauty, posture beauty and expressive beauty), novelty (innovative choreography) and difficulty (numerous difficult movements).

It is generally recognized that competitive aerobic gymnasts are preferably of medium height and relatively light weight. Completing difficult movements in competitive aerobics requires overcoming body gravity, and lighter weight makes movements less strenuous. In terms of body type, athletes with strong physique, distinct muscle contours, well-proportioned body and long upper and lower limbs are preferred. Excessively short stature will directly affect the stretching effect of movements and exert a negative impact on athletes' artistic expressiveness.

2.3.4. Athletes' movement quality

Under the 2013–2016 Code of Points, every movement has a clear start and finish, and perfect control must be maintained throughout execution. Proper body balance should be kept during difficult elements, transitional movements, takeoffs, landings and complex aerobic combinations. Minor deviations from correct execution count as small faults with a 0.1-point deduction each time; obvious deviations are medium faults with a 0.2-point deduction; serious deviations are large faults with a 0.3-point deduction. Failure to meet any requirements for correct execution or repeated faults constitute unacceptable faults with a 0.5-point deduction. Uncontrolled landing is regarded as a fall, also leading to a 0.5-point deduction. Athletes' movement quality is closely related to the deduction rules specified in the regulations, and movement quality reflects athletes' training standard.

2.3.5. Embodiment of music through movements

The integration of movements and music exerts an important influence on expressiveness. Lyrical, cheerful or majestic music can produce strong appeal. Whether athletes choreograph routines based on music melody, rhythm, artistic conception or style, the selected movements must reflect musical characteristics. Only the harmony between the two can create aesthetic feeling and touch the audience. Proper use of such music can add vitality to movements, yet the perception of music largely depends on personal accomplishment and relevant education background. Only professional audiences can understand athletes' careful consideration in music selection. Under the new rules, the maximum score for music and musicality is two points. Music should reflect the features of competitive aerobics, and there should be strong consistency between routine performance and music selection.

2.3.6. Artistry of complete-set choreography

Artistry refers to the degree of fine expression reflected when people mirror social life and convey thoughts and emotions. Athletes can demonstrate the artistry of movements by performing a flawless routine. Artistry involves movement (amplitude and extension), speed, presentation of subtle gestures and distinct transitions between movements, which jointly display the characteristics of aerobic routines. Therefore, the 2013–2016 Code of Points states that a high-precision routine consists of aerobic movements, transitions and connections, lifts and collaborations (mixed pair, trio and five-person groups). The artistry of choreography directly affects athletes' performance and artistic scores, covering coordination between movements and music, ingenious movement connections, climactic fluctuations in the routine, and innovative design, as shown in Table 1.

Table 1 Artistic scoring criteria of the new aerobics' rules (2013-2016)

Degree of Deviation from Perfection	Minor Faults	Medium Faults	Falls
Aerobic Movement (Each Unit)	0.1	0.2	0.5
Transitions and Connections (Each Time)	0.1	0.2	0.5
Lifts and Collaborations (Each Time)	0.1	0.2	0.3

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3. Suggestions

In the process of improving the expressiveness of competitive aerobic gymnasts, we can break away from the fixed framework and try to adopt training methods from other difficulty-beauty event groups rather than limiting ourselves merely to competitive aerobics. For instance, we may learn new training approaches and means from rhythmic gymnastics, synchronized swimming, figure skating, sports dance, diving and artistic gymnastics, and even emerging disciplines such as yoga, Pilates, hip-hop and choreography.

In addition, many other factors can influence the expressiveness of competitive aerobics. Therefore, further in-depth research is required to explore more influencing factors of expressiveness, so as to provide references for competitive aerobic gymnasts to improve their expressiveness and sports performance.

Through the analysis of various influencing factors, the following training methods for improving expressiveness are summarized: information feedback, simulated competition scenarios, concentration training and self-confidence promotion.

4. Conclusion

In competitive aerobics, competition results are generally determined by rankings and the competitive ability demonstrated during matches. Expressiveness has a direct correlation with competition outcomes. It is impossible to obtain high scores without sound expressiveness. In other words, athletes must improve their expressiveness to achieve good results and beat opponents. When athletes have similar technical proficiency, expressiveness plays a decisive role in determining the winner of a competition.

The expressiveness of competitive aerobics is a kind of competitive ability for athletes to show themselves and impress judges and audiences in competitions. This competitive ability covers athletes' comprehensive capacities including intelligence, technical proficiency, psychology and physical fitness. It is the perfect integration of athletes' external movement performance and internal spiritual temperament.

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