

Training Methods and Competitive Ability of High School Aerobics Athletes

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Abstract: This study is based on the relationship between the training methods and influencing factors of high school aerobics athletes' competitive ability, laying a foundation for improving the competitive ability of aerobics athletes. The results show that the improvement of aerobics athletes' training methods in training, such as Training goals and plans, Training content and methods, Training intensity and quantification, Training cycle and rhythm, Coaching team and support system, and Cultivation of athletes' psychological quality, all contribute to the improvement of competitive ability, thereby improving the sports performance of aerobics athletes. Through descriptive correlation design and SPSS analysis of 65 students' data, it was found that aerobics athletes' interest in high-dimensional competitive ability, including Technical level, Physical fitness, Artistic expression, Mental quality, Spirit of teamwork and Training goals and plans, Training content and methods, Training intensity and quantification, Training cycle and rhythm, Coaching team and support system, Cultivation of athletes' psychological quality in training methods, etc. In order to improve the competitive ability and training method level of aerobics athletes, teachers should take relevant measures in teaching, such as not considering sex, grade, and training years as the main factors for evaluating the competitive ability and training methods of aerobics athletes, emphasizing the actual content of course design and the organization of teachers, helping aerobics athletes to establish a good training method system and improve the development level of aerobics competitive ability.

Keywords: High School; Aerobics Athletes; Competitive Ability; Training Methods; Influencing Factors.

1. Introduction

Aerobics, as a sport integrating artistry, fitness and competition, has been widely promoted and developed in Dongguan City, Guangdong Province and even the whole country in recent years. However, despite their increasing popularity, high school aerobics athletes still face many challenges and problems in terms of training methods and competitive ability.

From the macro level, at present, the development of aerobics in Dongguan city and Guangdong Province is facing multiple challenges. The competition system is not perfect, the competition opportunities are scarce and uneven distribution, leading to the disconnection between athletes' training and actual combat, and the difficulty to comprehensively improve their competitive ability. At the same time, the enrollment and admission policy is unfavorable to competitive aerobics athletes, restricts the selection and training of excellent talents, and aggravates the risk of loss of athletes. In addition, the unbalanced regional economic development has also significantly affected the popularization and development of aerobics, and the lack of resources in economically underdeveloped areas has further widened the gap in competitive ability between aerobics athletes. These problems jointly restrict the in-depth promotion of aerobics in Guangdong province and the emergence of high-level athletes. Thinking from the micro level: in the aerobics training of some ordinary high schools in Dongguan, there are problems such as single training method, imperfect material selection and training mechanism and insufficient injury management. Traditional training methods lack innovation and ignore individual differences, resulting in boring training and difficult to stimulate the potential of athletes. When selecting materials, we pay too

much attention to the external conditions, ignore the internal factors such as psychological quality and love, and lack of personalized training plan in the training process. At the same time, the high intensity training of aerobics is easy to cause sports injuries, but the existing injury management and recovery measures are insufficient, the lack of professional medical team and scientific recovery means, affecting the health and competitive performance of athletes. These problems jointly restrict the overall development of aerobics athletes and the improvement of competitive ability.

In today's society, with the improvement of people's health awareness and the rapid development of the sports industry, bodybuilding operations, as a project that combines sports and art, have received widespread attention and love. Especially in high school, more and more students choose to participate in aerobics training, hoping to improve their physical fitness and artistic accomplishment through this sport. However, how to scientifically and effectively improve the competitive ability of high school aerobics athletes and which training methods to choose have become problems to be solved.

The development status of competitive ability training methods shows a diversified trend. With the continuous advancement of sports science, traditional training methods can no longer meet the needs of modern aerobics athletes. Modern training methods pay more attention to individualization, science and systematization, and provide athletes with more comprehensive and detailed training guidance through the comprehensive application of multi-disciplinary knowledge such as physiology, psychology, nutrition and so on. In terms of application results, scientific training methods have achieved remarkable results. Many high school aerobics athletes have not only improved their competitive level through systematic training, but also

achieved excellent results in competitions. At the same time, their physical fitness, technical level and psychological quality have also been comprehensively improved, laying a solid foundation for their future sports careers.

In recent years, with the diversified development of physical education, bodybuilding operation, as a sport that integrates sports and art, has received more and more attention and popularity in high schools. More and more high school students choose to participate in aerobics training to exercise their bodies and improve their artistic accomplishments through this sport. However, with the popularity of aerobics, how to scientifically and effectively cultivate and improve the competitive ability of high school aerobics athletes has become an important educational issue. This is both a challenge to high school physical education and an opportunity to promote the further development of aerobics. Therefore, this study is committed to an in-depth exploration of the training methods for the competitive ability of high school aerobics athletes, with a view to providing more scientific and systematic guidance for high school aerobics education.

This study aims to explore the intrinsic relationship and interaction mechanism between the competitive ability and training methods of high school aerobics athletes. This article uses a combination of quantitative research and qualitative research to conduct an in-depth analysis of the impact of competitive abilities and training methods on high school aerobics athletes at different levels. At the same time, this study will also explore how to improve the competitive ability of high school aerobics athletes through the use of effective training methods and optimize the selection of training methods, thereby helping them better cope with challenges in learning and training and achieve all-round development.

The research results will provide scientific basis and theoretical support for the development of competitive ability of high school aerobics athletes, and help guide aerobics coaches to carry out more targeted education and training to improve the competitive ability and competitiveness of high school aerobics athletes. At the same time, this research will also provide new perspectives and ideas for academic research in related fields and promote the deepening and development of related theories.

To sum up, the significance of this study is to deeply analyze the training methods for the competitive ability of high school aerobics athletes, aiming to improve the athletes' competitive level and promote the scientific development of aerobics. First of all, through systematic research, more scientific and effective training guidance can be provided for high school aerobics athletes to help them improve their physical fitness, technical level and psychological quality, so as to achieve better results in competitions. Secondly, this study helps to improve the training theoretical system of aerobics athletes and lays a theoretical foundation for the long-term development of aerobics. Finally, through the promotion and application of research results, it can promote the popularization and improvement of high school aerobics education, cultivate more outstanding aerobics talents, and contribute to my country's sports industry. Therefore, this study not only has important theoretical value, but also has far-reaching practical significance.

To sum up, there are still many gaps and deficiencies in the research on the training methods and competitive ability of ordinary high school aerobics athletes in Dongguan city, Guangdong Province. This study aims to propose practical

solutions and strategic suggestions by conducting an in-depth analysis of the problems faced by athletes at the macro and micro levels. This not only helps to improve the competitive level and development quality of aerobics in Dongguan city and even Guangdong Province, but also provides the experience and reference for other regions. At the same time, this study also fills the gaps in the field of training methods and competitive ability of aerobics athletes, and contributes new strength to the scientific development and popularization of aerobics.

The purpose of this study is to explore the current relationship between competitive ability and training methods among high school aerobics athletes. The presentation, discussion and synthesis of research related to the above constructs form the basis on which the study is built.

2. Statement of the Problem

This study aims to explore the relationship between competitive ability training methods and influencing factors of high school aerobics athletes. Specifically, this study will answer the following questions:

- (1) Profile of the respondents
 - 1). sex
 - 2). grade
 - 3) training years
- (2) What is the assessment of respondents in the competitive ability of high school aerobics athletes in terms of
 - 1) Technical level
 - 2) Physical fitness
 - 3) Artistic expression
 - 4) Mental quality
 - 5) Spirit of teamwork
- (3) Is there significant difference in the assessment of the respondents in the competitive ability of High school aerobics athletes when grouped according to their profile variables?
- (4) What is the assessment of the respondents on the level of training ability of school aerobics athletes?
 - 1) Training goals and plans
 - 2) Training content and methods
 - 3) Training intensity and quantification
 - 4) Training cycle and rhythm
 - 5) Coaching team and support system
 - 6) Cultivation of athletes' psychological quality
- (5) Is there a significant difference in the assessment of the respondents in the level of training ability of school aerobics athletes when grouped according to their profile variables?

3. Hypotheses

Ho1: There is no significant differences in the assessment of the respondents in the competitive ability level of the HS aerobics athletes.

Ho2; There is no significant difference in the assessment of the respondents in the level of training ability of school aerobics athletes when grouped according to profile.

4. Scope and Delimitation of Study

This study aimed to explore the relationship between competitive ability and training methods of high school aerobics athletes. It provides an important reference basis for training methods to improve the competitive ability of high school aerobics athletes.

This study mainly explores the relationship between the

competitive ability training methods of high school aerobics athletes. Through literature, questionnaire survey, mathematical statistics and other methods, this paper analyzes the current situation and relationship of competitive ability training methods for high school aerobics athletes.

The study will involve 65 high school aerobics athletes. Data will be collected through a survey instrument and mean, percentage, independent sample t-test and Pearson correlation coefficient will be used as evaluation indicators for this study. The results of this study will provide a reference for improving the level of competitive ability training methods of high school aerobics athletes, and provide a reference for the relationship between improving the competitive ability training methods of high school aerobics athletes.

5. Research Design

This study will adopt a descriptive quantitative research method. Specifically, we will employ a descriptive comparative correlational research design, which refers to status assessment profile variables of high school aerobics athletes' competitive abilities and training methods. This study aims to evaluate the specific relationship between the competitive ability and training methods of high school aerobics athletes, and the evaluation results can be used as a reference for behavioral planning. The survey method will use an evaluation scale produced by relevant scholars as a tool to collect participant information. A descriptive design was considered the most appropriate design for this study because it is the broadest and most inclusive tool compared to other survey methods. In the context of this study, the researcher aims to describe the current situation of high school aerobics athletes' competitive abilities and training methods, and provide a reference for guiding the improvement of high school aerobics athletes' competitive abilities and use of training methods.

6. RESULTS AND DISCUSSION

Profile of The Respondents.

In Table 1, in terms of sex distribution, males accounted for 23 people, accounting for 35.4%, and females accounted for 42 people, accounting for 64.6%, indicating that female

participants dominated this study. In terms of grade distribution, there were 11 first grade high school students, accounting for 16.9%; 21 second grade high school students, accounting for 32.3%; and 33 third grade high school students, accounting for 50.8%. This shows that the research participants are mainly concentrated in the second and third grade of high school, especially third grade students, accounting for more than half, which is related to their study pressure and exercise needs. In terms of training years, the training years of the participants showed a relatively balanced distribution. There were 19 people with one year of training, accounting for 29.2%; 27 people with two years of training, accounting for 41.5%; and 19 people with three years of training, accounting for 29.2%. It can be seen that most participants have accumulated a certain amount of training, especially students with two years of training experience accounted for a high proportion, which reflects the participants' continued investment and interest in sports training. In addition, the distribution of different training years is also helpful to explore the impact of training years on students' sports performance and health status in the study. In summary, this set of data provides a detailed distribution of the research subjects in terms of sex, grade and training years, which will help to conduct in-depth analysis and comparison of the sports performance and health status of students from different backgrounds in subsequent studies.

Table 1. The profile of participants

		Frequency	Percentage
Sex	male	23	35.4
	female	42	64.6
	Total	65	100.0
Grade	High school first grade	11	16.9
	High school second grade	21	32.3
	High school third grade	33	50.8
	Total	65	100.0
Training years	One year	19	29.2
	Two years	27	41.5
	Three years	19	29.2
	Total	65	100.0

The assessment of respondents in the competitive ability of high school aerobics athletes

Table 2. The assessment of the technical level

	Mean	SD	Descriptive	Rank
1. I have high confidence in my technical skills.	3.11	0.89	Agree	2.5
2. I am satisfied with my technical level.	3.11	0.83	Agree	2.5
3. I feel that I have made significant progress in terms of technical level.	3.12	0.86	Agree	1
4. I feel very competent at my technical level.	3.05	0.84	Agree	4
5. I think my technical level is very high.	2.94	0.83	Agree	5
Overall	3.06	0.74	Agree	

Legend: 3.51 – 4.00 Strongly Agree; 2.51 – 3.50 Agree

1.51 – 2.50 Disagree; 1.00 – 1.50 Strongly Disagree

In Table 2, the highest scoring item is "I feel that I have made significant progress in terms of technical level.", The descriptive statistics show a composite mean score of 3.12 with a standard deviation of 0.86, ranking first. The lowest scoring item is "I think my technical level is very high", The descriptive statistics show a composite mean score of 2.94 with a standard deviation of 0.83, ranking 5th. The overall mean score is 3.06, indicating that overall the participants' confidence in their technical level is relatively consistent, and

they are all within the "agree" range. This means that although participants generally agreed that they had made progress in their skill level, they were more cautious about their current level of skill. This suggests that although participants were satisfied with their progress, they still recognized that their technical abilities could be further improved. The range of standard deviations is narrow (0.83 to 0.89), indicating that participants' self-assessments on skill level are relatively consistent. Overall, the data implies participants' recognition

of their own technological progress, but it also reflects their needs and expectations for future technological improvements. This information will be valuable in guiding future training and upskilling programs. According to Huang (2024) There is a certain gap between participants' self-perception and expectations of their own technical level. On the one hand, participants generally felt that they had made significant progress at their technical level, indicating that they were aware of their efforts and growth. On the other hand, although they recognize their own progress, their overall evaluation of their own technical level is relatively conservative, especially the lowest score in "think their technical level is very high". This reflects that when participants face practical challenges, they feel that they still have a lot of room for improvement, or that their technical abilities have not yet reached the ideal state. This cognitive

gap stems from participants' strict requirements for their own abilities, or from their desire and pursuit of higher-level skills. On the other hand, Xie & Liu (2023) The feedback and evaluation participants received during the training process affected their evaluation of their own skill level. Participants are more likely to realize their progress if the feedback given during training is positive and constructive. However, if the feedback is relatively strict or under-emphasized, it will cause participants to doubt their own technical level and thus evaluate the overall level more conservatively. In addition, the targeted and systematic nature of training content will also affect participants' self-evaluation. If the training content cannot fully meet the improvement needs of participants, or the training results are not recognized in a timely manner, they will be cautious about their current technical level.

Table 3. The assessment of the physical fitness

	Mean	SD	Descriptive	Rank
1. I think my physical fitness is very good.	3.00	0.77	Agree	3
2. I feel like I'm where I want to be physically.	3.02	0.76	Agree	2
3. I feel that my physical fitness is better than most people.	2.98	0.78	Agree	4
4. I think my physical fitness is at a very high level.	2.94	0.86	Agree	5
5. I feel that my physical fitness is constantly improving.	3.08	0.80	Agree	1
Overall	3.00	0.68	Agree	

Legend: 3.51 – 4.00 Strongly Agree; 2.51 – 3.50 Agree
1.51 – 2.50 Disagree; 1.00 – 1.50 Strongly Disagree

In Table 3, the highest scoring item is "I feel that my physical fitness is constantly improving", The descriptive statistics show a composite mean score of 3.08 with a standard deviation of 0.80, ranking first. The lowest scoring item is "I think my physical fitness is at a very high level", The descriptive statistics show a composite mean score of 2.94 with a standard deviation of 0.86, ranking 5th. The overall mean score is 3.00, indicating that the participants generally agree with their assessment of their physical fitness, which is within the range of "agree". This means that: the participants can see their own progress in physical training, but at the same time they also recognize that there is still a gap between themselves and the "very high" standard. This situation reflects that when they pursue higher physical fitness levels, they have higher requirements for themselves, or they are constantly pursuing higher goals. In addition, the difference in standard deviations (0.76 to 0.86) also shows that there are certain individual differences in participants' physical self-assessment. According to Hu & Wang (2023) Although they recognize that their physical fitness is constantly improving and are satisfied with their current physical fitness, they are more cautious in their evaluation of

themselves when facing higher standards. This phenomenon stems from the participants' pursuit and expectation of higher physical fitness levels. They realize that they still have a certain distance to reach a "very high level". Therefore, although they feel progress, they think they have not yet reached the peak. This gap between expectation and reality makes them show a certain conservative attitude in self-assessment. On the other hand, Yan (2023) found that if the participants' training plan is of high intensity and good continuity, they will feel obvious progress, which also explains why the "physical fitness is constantly improving" score is the highest. However, if the feedback they receive during the training process is not too positive, or the evaluation criteria are strict, they will be cautious about their physical fitness level when self-assessing. In addition, if the training content is not enough to challenge the participants or lacks a personalized improvement plan, they will also have reservations about their own physical fitness. This shows that the external environment, the design of the training plan and the feedback mechanism have a significant impact on the participants' physical self-evaluation.

Table 4. The assessment of the artistic expression

	Mean	SD	Descriptive	Rank
1. I think my artistic expression is very good.	2.98	0.82	Agree	5
2. I feel like my artistic expression is constantly improving.	3.17	0.84	Agree	1
3. I feel like I'm better at artistic expression than most people.	3.02	0.74	Agree	3
4. I am satisfied with my artistic expression.	3.05	0.78	Agree	2
5. I think I have a high talent for artistic expression.	3.00	0.88	Agree	4
Overall	3.04	0.73	Agree	

Legend: 3.51 – 4.00 Strongly Agree; 2.51 – 3.50 Agree
1.51 – 2.50 Disagree; 1.00 – 1.50 Strongly Disagree

In Table 4, the highest scoring item is “ I feel like my artistic expression is constantly improving.”, The descriptive statistics show a composite mean score of 3.17 with a standard deviation of 0.84, ranking first. The lowest scoring item is “ I think my artistic expression is very good.”,The descriptive statistics show a composite mean score of 2.98with a standard deviation of 0.82, ranking 5th. The overall mean score is 3.04, indicating that participants generally agree with their ability in artistic expression, but are relatively cautious in their evaluation. This means that participants have high expectations for their own artistic expression and still feel insufficient to reach a higher level. This cognition stems from the relatively strict subjective evaluation criteria for art, or the desire to further improve artistic expression in the future. The range of standard deviations (0.73 to 0.88) shows the differences in individual evaluations of artistic expression, indicating that although the overall trend is positive, there are still large differences in self-evaluation between different participants. In summary, this set of data reveals the contradictory psychology of participants in self-recognition and pursuit of higher standards in artistic expression. According to Zhou, et al (2023) Some participants were satisfied with their progress

and believed that they had significantly improved in this area, so they scored the highest in "artistic expression is constantly improving". However, since artistic expression involves personal style, creativity, and self-expression, different participants have different understandings and standards of whether they have reached the "very good" level. This difference in cognition leads to their reservations about the item "very good artistic expression" because they feel that they have not yet reached the ideal height. Zhang (2023) The field of art often relies on the recognition and feedback of others. When participants evaluate themselves, they will be influenced by external opinions. If participants receive positive feedback and recognition in artistic expression, they are more inclined to believe that their artistic expression is improving. However, if the external feedback is more neutral or critical, they will therefore lower their self-evaluation of their artistic expression. In addition, the improvement of artistic expression often requires time and continuous practice. Participants tend to underestimate their abilities when self-evaluating, especially when compared with others. This external influence leads to their low scores in the item "I think my artistic expression is very good".

Table 5. The assessment of the mental quality

	Mean	SD	Descriptive	Rank
1. I am able to stay calm and focused during the game.	3.02	0.72	Agree	4
2. I believe that I am capable enough to overcome the pressure during competition.	3.11	0.75	Agree	3
3. I am able to effectively deal with challenges and difficulties in competition.	2.95	0.78	Agree	5
4. I am able to maintain a positive attitude during games.	3.14	0.79	Agree	2
5. I feel that I am a very confident athlete in the arena.	3.23	0.77	Agree	1
Overall	3.09	0.66	Agree	

Legend:3.51 – 4.00Strongly Agree; 2.51 – 3.50Agree
1.51 – 2.50Disagree; 1.00 – 1.50Strongly Disagree

In Table 5, the highest scoring item is "I feel that I am a very confident athlete in the arena.", The descriptive statistics show a composite mean score of 3.23 with a standard deviation of 0.77, ranking first. The lowest scoring item is " I am able to effectively deal with challenges and difficulties in competition.", The descriptive statistics show a composite mean score of 2.95 with a standard deviation of 0.78,ranking 5th. The overall mean score is 3.09, indicating that the participants generally agree with their ability in psychological quality, but their confidence is slightly insufficient when facing pressure and challenges. This means that: although the participants have strong confidence and enthusiasm in psychological quality, they need to further improve their coping ability when dealing with difficulties and challenges in actual competitions. Overall, the psychological quality of the participants is in the "agree" range, but they have room for improvement in actual challenge coping and stress management. According to Wang (2023) Experienced athletes are more able to maintain confidence in the game and show stronger psychological stability when facing pressure. Therefore, they scored higher in the item "I feel that I am a very confident athlete in the arena". However, for participants with less experience or lack of coping strategies in high-pressure environments, the pressure and challenges they felt

in the actual competition were more obvious, resulting in lower scores in the item "I can effectively deal with challenges and difficulties in the competition." This reflects that athletes with less experience or lack of coping strategies will feel anxious or uneasy during the competition, which will affect their performance. Wei (2023) External environment, such as the importance of the competition, the attention of the audience, and the difficulty of the competition, also have an impact on the psychological quality of participants. In important competitions or facing strong opponents, external pressure is often greater, which causes some athletes to feel overwhelmed or overstressed when dealing with challenges and difficulties. Although they usually show confidence, in the actual competition, they will find that their stress management ability is insufficient when facing these external factors, resulting in low self-evaluation of their ability to "cope with challenges and difficulties." On the other hand, good psychological training and support systems can help athletes improve their stress management ability and coping strategies, so that they can stay calm and focused during the competition, but if these aspects of support are insufficient, it will also lead to low scores in psychological quality assessment.

Table 6. The assessment of the spirit of teamwork

	Mean	SD	Descriptive	Rank
1. I am willing to work with team members to complete tasks together.	3.31	0.81	Agree	2
2. I can communicate and collaborate effectively with others in a team.	3.29	0.68	Agree	3
3. I am willing to share my ideas and resources to help the team succeed.	3.22	0.76	Agree	5
4. I am willing to accept opinions and suggestions from others to improve team work.	3.28	0.74	Agree	4
5. I think teamwork is the key to success.	3.32	0.73	Agree	1
Overall	3.28	0.67	Agree	

Legend:3.51 – 4.00Strongly Agree; 2.51 – 3.50Agree
1.51 – 2.50Disagree; 1.00 – 1.50Strongly Disagree

In Table 6, the highest scoring item is "I think teamwork is the key to success.", The descriptive statistics show a composite mean score of 3.32 with a standard deviation of 0.73, ranking first. The lowest scoring item is "I am willing to share my ideas and resources to help the team succeed.", The descriptive statistics show a composite mean score of 3.22 with a standard deviation of 0.76, ranking 5th. The overall mean score is 3.28, indicating that participants generally agree on their abilities and attitudes in teamwork. This means that participants generally agree on the importance of teamwork in achieving success and show a positive willingness to cooperate and communication skills. However, the relatively low-scoring item "willing to share one's ideas and resources" reflects that participants have some reservations or are not completely open in the team, or are worried that their ideas and resources are not fully recognized or adopted. This is related to the level of trust within the team, the individual's self-perception of the value of contribution, or the imbalance of resource allocation in the team. Nevertheless, overall, participants have a positive attitude towards teamwork, recognize the importance of cooperation, and are willing to contribute their own strength in the team, which provides a good foundation for further improving the efficiency of

teamwork. According to Li & Wang (2023) If the culture within the team encourages open communication, sharing resources, and accepting different opinions, members will generally be more active in teamwork. For example, if the team leader values and rewards team members' cooperation and resource sharing, participants will have a more positive attitude towards "willing to share their ideas and resources." However, if the team environment is more competitive, resources are unevenly distributed, or there is a lack of trust, participants will feel reserved when sharing their ideas and resources. This difference in team culture leads to a low score on "willing to share my ideas and resources to help the team succeed." Su (2023) Participants feel that their opinions and resources are not valued or accepted, and they will feel reluctant or unconfident about sharing resources in teamwork. For example, if they have doubts about whether their contributions are recognized, or worry that their resources and ideas cannot effectively promote team success, they will show a low willingness to share. In addition, participants lack sufficient trust in the abilities and intentions of team members, which affects their cooperative attitudes and willingness to share resources. This self-efficacy and trust issue is the reason for the low score on "willing to share my ideas and resources."

Table 7. The assessment of the competitive ability

	Mean	SD	Descriptive	Rank
Technical	3.06	0.74	Agree	3
Physical Fitness	3.00	0.68	Agree	5
Artistic Expression	3.04	0.73	Agree	4
Mental Quality	3.09	0.66	Agree	2
Spirit of Teamwork	3.28	0.67	Agree	1
Overall	3.09	0.71	Agree	

Legend:3.51 – 4.00Strongly Agree; 2.51 – 3.50Agree
1.51 – 2.50Disagree; 1.00 – 1.50Strongly Disagree

In Table 7, the highest scoring item is "Spirit of Teamwork", The descriptive statistics show a composite mean score of 3.28 with a standard deviation of 0.67, ranking first. The lowest scoring item is "Physical Fitness", The descriptive statistics show a composite mean score of 3.00 with a standard deviation of 0.68, ranking 5th. The overall mean score is 3.09, indicating that the participants generally believe that they perform well in terms of competitive ability, but there are certain differences in the abilities of each aspect. This means that: Teamwork is regarded as a key ability in competition, and the participants feel relatively confident in this regard. However, the relatively low-scoring item "Physical Fitness" reflects that the participants have a certain reservation about the impact of their physical conditions in competition. Although they are relatively satisfied with other

aspects, such as technical level, artistic performance, and psychological quality, the low score of physical fitness shows that the participants feel that there are certain deficiencies in their physical conditions, which affects their overall competitive performance. Overall, although the participants showed good self-assessment in all aspects of competitive ability, they still need to pay attention to the improvement of physical fitness in order to comprehensively improve their competitive ability. According to Zhai (2023) The high score of team spirit reflects the good communication and collaboration atmosphere within the team, the mutual support between team members and the effective collaboration training, which makes the participants more active and confident in teamwork. The relatively low score of physical fitness is related to the resources and methods of physical

training. If the team or organization does not invest enough in physical fitness training, or lacks a targeted training plan, the participants feel insufficient in physical fitness. Effective physical fitness training usually requires systematic planning and resource support. If these aspects are not given sufficient attention, the physical fitness score will be low. Pei (2023) The participants have a high recognition and confidence in the value of teamwork, so they have a high score in team spirit. On the contrary, in terms of physical fitness, the participants feel greater external pressure, such as the strength of competitors or the challenge of physical conditions, which leads to their lack of confidence in their performance in this aspect. In addition, individuals' self-evaluation of their own physical fitness is affected by recent physical conditions or past experiences. If participants have experienced physical difficulties or poor training results recently, they will evaluate their physical fitness lower. The influence of psychological factors and external pressure leads to lower scores in physical fitness than other aspects.

7. Conclusion

Based on the indicated findings, the following conclusions were drawn from the results of the study:

1) In the study, female participants dominated, and the grade distribution was concentrated in the second and third years of high school, especially the third grade students accounted for more than half. This shows that the study sample mainly consists of senior students, reflecting their characteristics in terms of sports demands and academic pressure.

2) The distribution of participants' training years is relatively balanced: 29.2% have one year of training experience, 41.5% have two years of training experience, and 29.2% have three years of training experience. This shows that most participants already have some training accumulation, especially students with two years of training experience account for the highest proportion, indicating that they have high investment and interest in long-term sports training.

3) Participants scored the highest on "Teamwork Spirit" and the lowest on "Physical Fitness", indicating that participants generally believed that they had good competitive abilities but had deficiencies in physical fitness, suggesting the need to pay attention to physical conditions. Improve to enhance overall competitiveness.

4) The effects of sex, grade and training years on each assessment dimension do not reach statistically significant levels. This shows that gender and grade have little impact on the evaluation of athletes' competitive ability, and the impact of training years on ability dimensions is not significant in the existing data, which may be due to the fact that training content and quality are relatively balanced among various years.

5) Athletes' evaluation of training ability is generally high, especially in "training goals and plans", "training content and methods", "coaching team and support system" and "psychological quality cultivation". However, the lower scores for "Training Intensity and Quantification" and "Training Periodization and Rhythm" indicate that further optimization and adjustments are needed in these areas to improve training effects and athlete satisfaction.

8. RECOMMENDATIONS

Based on the results, the researcher provides the following suggestion:

1) Due to the high proportion of senior students in the study sample, it is recommended to develop a training plan for high school sophomores and juniors, taking into account their characteristics in terms of sports demands and academic pressure. This may include adjusting training loads and optimizing study arrangements to better meet their needs and improve training effects.

2) Due to the balanced distribution of participants' training years, it is recommended to take into account athletes with different training years when designing training programs. For athletes with two years of training experience, more advanced training content and challenges can be provided to maintain their interest and continued commitment. At the same time, additional support and guidance should be provided to novice and less experienced athletes to help them adapt to training requirements more quickly.

3) Participants scored low on physical fitness, indicating that physical fitness exercises need to be strengthened in training. It is recommended to focus on physical fitness training, increase the proportion of strength, endurance and flexibility training, and ensure that athletes' abilities in these areas are effectively improved, thereby improving overall competitiveness.

4) Although gender, grade and training years did not significantly affect the current assessment dimensions, it is recommended to further monitor the impact of these factors on the long-term development of athletes. Long-term follow-up studies or increased sample sizes can be used to explore how these factors affect training effects and athletes' overall performance, so as to better adjust and optimize the training system.

5) In view of the low scores in "training intensity and quantification" and "training cycle and rhythm", it is recommended to re-evaluate and optimize the training design in these aspects. Ensure that the training intensity is reasonable and quantifiable, and scientifically arrange the training cycle and rhythm to improve the training effect and athlete satisfaction. More quantitative indicators and feedback mechanisms can be introduced to help athletes and coaches better adjust their training strategies.

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