



Developing Managerial Guidelines to Promote Curling Sport in the People's Republic of China

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Abstract

Background and Aim: Curling in China for only 20 years has made remarkable achievements, especially in the 2009 curling world championships, where the women's curling team won the gold medal, causing the attention of the country and the attention of the public, but compared with some traditional curling powers, in tactics, psychological, still have an obvious gap. Therefore, this research aims to develop managerial guidelines to promote curling sports in China.

Materials and Methods: This research is a survey research. The sample was 20 curling players and coaches from three curling training centers in Heilongjiang Province, 60 curling club members in Harbin and Beijing, and 240 citizens who practice ice sports in Harbin and Beijing Street parks. In this research, the expert interview and questionnaire survey were conducted to draft the guidelines for developing managerial guidelines to promote the curling sport in China.

Results: to improve the sustainable development of curling in China, the management system of the project should be further improved and multi-party coordinated development should be carried out; Strengthen the socialization degree of curling; Increase the government as the main body of economic input, broaden the source of funding channels; Pay attention to personnel training, training and management; Focus on the comprehensive quality construction of coaches and players; Strengthen the scientific research of curling project

Conclusion: With the reform of the management system, the attention of management departments, the strong support and promotion of the government, and the gradual enrichment of reserve talents, the level of curling sports in China will be able to compete with the top strong teams.

Keywords: Managerial Guideline; Curling Sport

Introduction

Curling in our country in only 20 years has made remarkable achievements, especially in the 2009 curling world championships, where the women's curling team won the gold medal, causing the attention of the country and the attention of the public, but compared with some traditional curling powers, in tactics, psychological, still have an obvious gap (Zhang B & Li H, 2009). With the retirement of the old players, the problems in the development of curling in China are gradually exposed. High-level and high-quality curlers are very rare, the domestic people are very strange to curling, and there is a serious shortage of reserve talents, and there is still a lot of room for improvement in the talent training and training mechanism (Clement, 2012; Zhu et al, 2012). Although our Chinese curling started relatively late, we can catch up with those European and American strong teams, we can beat them to win the championship. However, with the retirement of a group of outstanding curlers at the 2014 Sochi Winter Olympics, there are no young players in China to replace them at this stage, resulting in a serious decline in performance. Moreover, curling is not only a competitive sport in that China has achieved good results in international large-scale competitions, but also a national sports activity suitable for the whole people to participate in. For this reason, we need to summarize the development of curling in China in the past two decades, analyze the current situation, and reformulate new strategic goals for the development of curling. Through the investigation of domestic curling, analysis of professional athletes, enthusiasts, and ordinary citizens' attitudes towards curling, the popularization of curling and sports skills provides reference, not only to promote the overall quality of the athletes, and to make curling known to more people and understand, to make good use of all the favorable factors, intensify propaganda,





let more people understand and participate in curling, improve the popularity of curling in our country, expand the social influence of curling.

Objectives

To develop managerial guidelines to promote curling sport in the People's Republic of China.

Literature Review

1. History of curling

Curling originated in Scotland and has a history of more than 500 years. It is a strategic sport with skill and wisdom, the combination of individuals and groups. At the same time, this sport always shows the characteristics of elegance, civilization, wisdom, collaboration, and others (Meiling, 2013). In curling competitions, athletes do not engage in physical contact and confrontation but rely on strategy and wisdom to compete. Therefore, curling does not require high physical fitness of athletes and is a strategic and tactical intellectual project (Yu et al, 2012). Although curling has not been held in China for a long time, it has developed very fast. In recent years, curlers have achieved good results in the international arena. The brief situation and achievements of curling development in China are shown in Table 1. From this series of achievements, we can see the rapid improvement in China's curling competition level, which also shows that China's curling team has reached the world first-class level (Wang Y, Su H, & Li X, 2013).

Chinese curling teams in the curling championships and Olympics continuously get good results, the curling news and broadcast gradually increased, and most Chinese talent began to know curling, its unique competitive and ornamental also caused the interest of sports fans and the audience, more and more curling lovers try and participate in the sport. The 18th National Congress of the Communist Party of China stressed the need to establish a comprehensive awareness of fitness and let the masses actively participate in the field of sports and competitive sports. This shows that the Party and the state attach great importance to the improvement of the sports quality of the whole people, and require the participation of the whole people, not only to develop competitive sports but also to pay attention to the popular development of sports. The General Administration of Sport of China has listed the Chinese curling team as a key event of the Winter Olympics, which has laid the foundation for the rapid development of China's curling events at the policy level (Wu H, 2011).

After years of development, curling has entered the Olympic Games, Asian Games, and other international events, and become an official event. Curling has been set up in the Domestic Winter Games and Heilongjiang Provincial Games. However, domestic curling started late. Since entering China, it has not developed well. The number of registered curlers is less than 200, which is still an emerging minority sport. Compared with other curling powers, there is a big gap of curling in curling skills and tactics (Cao & Li, 2012; Hong-Chen et al., 2014; Hong M, 2011).

2. Association management, theory of sports management

2.1 Chinese Curling Association

The Chinese Curling Association is a national mass sports organization with an independent legal person. At the beginning of its establishment, the Chinese Curling Association promulgated its constitution, which regulated the mission, membership, organizational structure, funding, television, radio and advertising, competitions, flags, emblems, and other related aspects of the Chinese Curling Association.

The decision-making mechanism of the Chinese Curling Association is relatively mature, and it can act by the rules and regulations and can properly handle local contradictions when encountered. However, the Chinese Curling Association's decision-making lacks independence compared to real societies.

The sources of funding of the Chinese Curling Association include government funding, membership dues, donations, sponsorships, income from activities or services carried out within the approved business scope, interest, funds, and other legitimate income (Zhou, 2012)

2.2 Theory of Sport Management

POLC: Planning, organizing, leading, and controlling. The four functions are interrelated and mutually restricted. Planning is the primary function of management and the basis of organization, leadership, and control. The functions of organization, leadership, and control are important links and necessary means of effective management and guarantee the realization of the plan and its objectives.





Only by unifying and coordinating these four aspects and forming a related and continuous overall process of management activities can we ensure the smooth progress of management work and the complete realization of organizational objectives.

P: Planning is the process of establishing goals and identifying the steps necessary to achieve them, including assessing opportunities, establishing goals, developing strategic plans to achieve goals, and formulating specific action plans to coordinate resources and activities.

O: Organizational work is the process of division, allocation of authority, and coordination of work in an organization to effectively achieve the goals set out in the plan. It is a natural extension of planning work, including the design of the organizational structure, the establishment of organizational relations, the allocation of personnel, and organizational change.

L: Leadership is the process in which managers use their authority and authority to exert influence, guide, and motivate all kinds of people to strive to achieve goals. When a manager motivates his subordinates, directs their actions, chooses the most effective means of communication, or resolves disputes among members of the organization, he is leading.

C: The control work includes setting control objectives, measuring actual performance, analyzing differences, and taking corrective measures. It is also a function that cannot be ignored in management activities.

The theory of sports management is the principles and related concepts of sports management summarized by educators after long-term exploration. The theoretical basis of sports management work is based on the daily work and practical activities of sports-related personnel, and at the same time, ideology and theory play an irreplaceable guiding role in management work (Li, 2011).

3. Curling rules

Each team consists of four players. In each game, each player throws two POTS in a row, and the two players alternately throw POTS. Before the game, each team shall determine the order of its pot, and the position of the conductor and the deputy conductor, and maintain the order of the pot throughout the game. If a team changes the order of the pot during a game, the game will be forfeited unless a substitute changes the order. Yu et al (2012) At the end of each game, each pot of a team are in the base camp or the base camp line, and the pot is closer to the center of the circle than any other pot of the other team.

1. The two sides are divided into the offensive side and the defensive side (the defensive side first curling) using alternate curling games.

2. The pitcher should be in the designated position of the pot area curling, curling pitcher's feet cannot exceed the bottom line, and the curling slide, once the violation, is considered an invalid pot.

3. Enter the effective area of the base camp curling no one can touch; Curling is not allowed to be touched by anyone in the sport. If the pitcher touches it, it is considered invalid. If the other side touches it, the pitcher decides whether to throw the curling again.

4. The pitcher must throw the curling over the safety line to be regarded as effective curling (if the curling is pressed on the defensive line is regarded as effective), does not reach the defensive line or slide off the bottom line of the field is regarded as invalid curling, out.

5. Only the third curler from both sides can knock the opponent's pot out of bounds in the free zone.

6. Curling in the camp can play out of bounds at any time.

7. In the scoring, if there is a disagreement between the two sides, then ask the coach to judge, if cannot judge, open another game.

8. This competition is an elegant gentlemanly project, with no complaints, insults, excessive and other bad behavior.

4. Related Research

Yu et al (2012). analyzed the origin and development process of curling, and summarized the development status of curling in all continents and major international competitions. Zhou (2012) analyzed the literature on curling published in professional sports journals in China from 1991 to 2010, and the results showed that the scientific research on curling in China was still at a low level, and the existing research results were mostly general theoretical research with insufficient depth and lack of guidance for specific training and popularization. To solve these problems, some solutions are put forward, such as increasing the establishment of scientific research projects, and cooperation between university research institutes and sports teams. Hong (2010) analyzed the results of China's national team in the



Curling World Championships, and the results showed that the Chinese women's curling team had some problems, such as a lack of scientific and systematic training, immature competition psychology, and serious shortage of reserve talents, which were the main factors leading to the decline in technical and tactical level and performance. Li (2011) analyzed the existing problems in the management system, hardware facilities, and talent training during the development of curling through an interview survey of professional teams, and put forward corresponding suggestions. Liu (2012) pointed out the factors affecting the training of China's curling reserve talents, coaches, curling venue equipment, etc., and put forward diversified strategies for the training of curling reserve talents. Zhang and Li (2009) analyzed the feasibility of opening curling courses in colleges and universities, and carried out practice, concluding that colleges and universities in Heilongjiang Province should carry out curling teaching courses in steps and plans, excavate local curling culture, realize health-centered teaching ideas, and form curling courses with characteristics of Heilongjiang Province. Guo (2011) used relevant theoretical knowledge of economics to analyze and study the development status and market prospects of curling in China, and the results showed that curling has the possibility of achieving popularity, and the development situation of the curling industry is not optimistic, but the market is promising.

From the retrieved research articles, it is found that most of the research on curling in China is in the competitive aspect, and the good results of Chinese men's and women's curling teams in international competitions are inseparable from these studies. However, the instability of the results also exposed the problems of the management system of China's curling sports, reserve strength, and so on. There is corresponding research on these problems in China, but it is not deep enough. Compared with other curling powers, the most obvious problem of curling in China is the popularization of curling, but there is little research on popularization and marketization.

Curling is a sport that requires athletes to have high technical, tactical, psychological, and personal comprehensive quality. Its characteristics determine that the sport is more suitable to be carried out in China, and it is an important means and way to implement the "Olympic Glory Plan" and "national fitness plan" in our country. At present, the overall level of China's curling has been significantly improved but compared with advanced countries in Europe and the United States, there is still a certain gap, and it is necessary to continuously increase training efforts in technical tactics and psychology.

Conceptual Framework

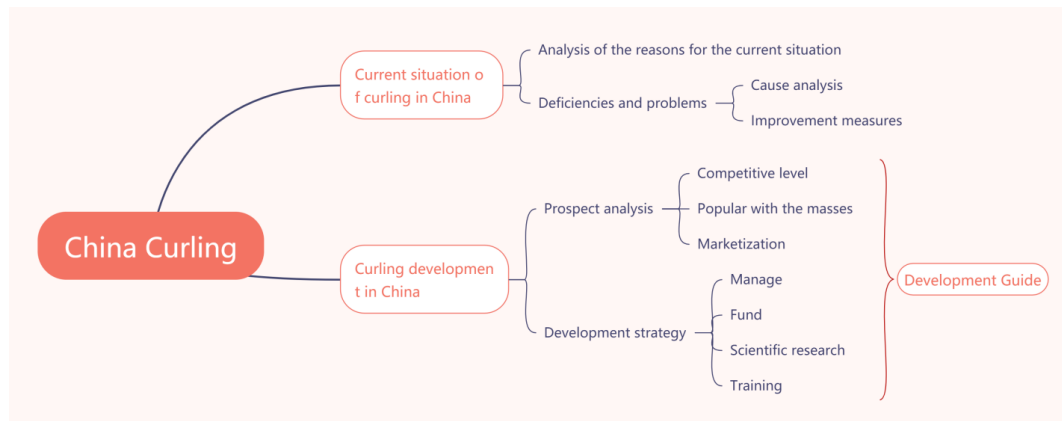


Figure 1 Conceptual framework

Methodology

1. Research Tools

This research used a questionnaire survey and interview form to collect the data.

2. Population and Sample



The subjects of this study are professional athletes of the Heilongjiang Provincial curling team, members of the Harbin Clockwise Curling Club, members of the Beijing Chinese Olympic Curling Center, sports leaders of colleges and universities engaged in curling, and public ice and snow sports enthusiasts in Harbin and Beijing. According to the research needs of this paper, this paper selects 20 curling players and coaches from three curling training centers in Heilongjiang Province, 60 curling club members in Harbin and Beijing, and 240 citizens who practice ice sports in Harbin and Beijing street parks.

3. Data Collection and Analysis

Step 1: Review literature

Research on the current situation of curling in China from online databases and library materials. Articles and journals from websites such as CNKI and the World Wide Web, Understand the current situation of Chinese curling, the management mode of China Curling Association, the development prospect of Chinese curling, and the existing problems.

Summarize the results of relevant studies, create a research framework, and guide this research.

Step 2: Conduct expert's interview

Interview focus group opinions, and interview experts to gather information on the current state of curling in China, including existing problems. This includes studying the issues that must be considered in the guidelines for the development of curling in China, and the factors that affect the development of curling, such as venues, talents, and economic factors.

Step 3: Write and distribute questionnaires

To ensure that the validity of the questionnaire meets scientific standards, face-to-face communication with experts on the content, structure, and evaluation of the questionnaire was carried out before the questionnaire was distributed, and finally, the content of the questionnaire was adjusted according to the experts' recommendations.

Ten days after the completion of the first questionnaire, the questionnaire survey was conducted again to conduct a comparative analysis of the results of the two questionnaires.

The questionnaire includes an interview questionnaire, provincial questionnaire, focus group questionnaire, and verification questionnaire.

Step 4: Summary and analyze data

Summarize and analyze the experimental data by using mathematical statistics. Through charts and mathematical methods, the data are sorted out and analyzed.

Step 5: Research report

Draft research report

Results

Due to the favorable geographical and climatic conditions, Harbin, Heilongjiang Province is the first city in China to embrace competitive curling. The establishment of the Chinese men's and women's national curling teams has led to a significant contribution of talent from Harbin. The Harbin Sports Institute, which pioneered the formation of the first curling team, has successfully trained numerous outstanding athletes for the country, including Wang Bingyu, Liu Yin, Yue Qingxin, Zhou Yan, Liu Rui and others. Heilongjiang boasts three prominent curling training venues located in Harbin: Harbin Sports School, Heilongjiang Ice Sports Center, and Harbin Sports Institute. These facilities are indicative of China's national competitive curling level. Therefore, this study focuses on these three institutions.

According to the research needs of this paper, this paper selected curling players from three curling training centers in Heilongjiang Province, curling club members in Harbin and Beijing, and citizens who played ice sports in Harbin and Beijing street parks to send questionnaires to them, to achieve the purpose of statistical data and information collection. There are two types of questions in the questionnaire, one is a closed question, and the other is an open question. There were three questionnaires. Questionnaire 1 was distributed to curling coaches and athletes. Questionnaire 2 was distributed to curling club members, and Questionnaire 3 was distributed to ordinary citizens, and was filled out by passers-by from Harbin and urban Beijing.

A total of 20 questionnaires were sent to coaches and athletes, including 5 for the former and 15 for the latter. All questionnaires were returned after completion. 60 copies were distributed to curling club members and 56 were recovered, with a recovery rate of about 92%. 240 copies of the questionnaire were





distributed to the citizens who played ice sports in street parks, and 231 copies were recovered, with a questionnaire recovery rate of about 96%.

Table 1 Questionnaire distributed and collected

	Ordinary citizen	Club member	Coaches and athletes
Distributed	240	60	20
Collected	231	56	20
Recovery	96%	93%	100%

The questionnaire survey results are as follows:

1. Basic situation of curling coaches

The competitive level of the athletes is related to many factors of the coach. The coach is an important pillar of a team and plays a leading role in the skills, tactics, and emotions of the players during training and competition. The level of the coach's management and command ability and the quality of the coach's team construction will directly affect the level of training and competition results. At present, there are 5 curling coaches interviewed and investigated by the author in Harbin City Team, Heilongjiang Ice Sports Center, and Harbin Sports Institute, among which 2 have senior titles, accounting for 40%, 2 intermediate coaches, accounting for 40%, and 1 junior coach, accounting for 20%. Aged between 28 and 50; Most of them have been coached for more than 10 years, and one has been coached for 4 years; One person has a college degree, accounting for 20%, and four people have a bachelor's degree, accounting for 80%. Before teaching, he had studied or trained in the National team and Heilongjiang Ice Sports Center, and two of them had participated in foreign learning exchanges. The survey data show that the curling coaches are mainly young and middle-aged in age, have rich coaching experience, mainly middle and senior titles at the coaching level, and have more exchanges with high-level foreign teams. A team of coaches with high talent quality, reasonable age structure, and rich teaching experience has been initially formed. According to the author's visit, the leadership of the training work is relatively satisfied with the quality and quality of the curling coaches.

2. Training ground and equipment

Curling venues and equipment are the basic conditions for professional training and performance improvement of curling projects, and there is a lack of formal curling training halls and standard competition venues in China, only Beijing, Harbin, Shanghai, and Yichun and other cities have professional curling venues, facilities, and functions are not perfect, and opening hours are limited. When ice training is not possible, the curlers have to train on land, which is very difficult. Since only individual provinces and cities have professional curling teams, the construction of professional curling venues is very few, some curling venues are transformed into ice hockey or short track venues, the ice surface of these venues is generally smooth and flat, but the ice surface of the curling court is different from other ice sports requirements, the ice surface of the curling court is U-shaped and the surface has a smooth raised small ice point. The traveling characteristics of curling on the two ice surfaces are different, and the players can not play a good training effect in this modified venue for a long time.

Curling equipment is also in short supply. The standard international curling is produced with Scottish granite, and it must be replaced regularly, resulting in a high cost of curling and auxiliary equipment, and the equipment preparation of the sports teams is not sufficient, and some teams are borrowing equipment from each other. In terms of sports facilities and auxiliary training equipment, all leaders believe that they cannot meet the requirements of curling training, and such conditions are not conducive to improving the level of competitive curling.

Through the investigation, it was found that there was a serious lack of curling training venues in China, and some venues were still short of the standard venues for international competitions. Curling team coaches and athletes also made it clear that this would affect their normal training and competitions. At present, the new curling halls and curling tracks in Harbin, Yichun, and other places have temporarily alleviated the shortage of venues, but some venues still need to be operated and open to the public, and curling tracks will be temporarily closed due to maintenance, so the professional team training time is not enough, and the problem of venue scarcity has not been fundamentally solved. Domestic curling brushes, curling shoes, training clothing, and other equipment can also be produced, but to meet the standards of





international competitions, also need to import professional curling equipment from abroad, the price is expensive, to the professional teams causing a greater burden, which is also one of the important reasons for affecting the training and competition results.

3. The main factors affecting the development of curling in China

Through the survey, it is found that the main factors affecting the development of curling in China are as follows :

Climate, professional venue, equipment factors

One of the biggest constraints on the development of curling is the climate of the area where the venue is located. The origin of curling is inseparable from the cold and long winter, and the high level of curling in Canada and Nordic countries is also closely related to the local climate. In cold regions, people have the conditions and enthusiasm to participate in ice sports, and the level of ice and snow sports in these regions is generally higher. Curling sport because its physical requirements are not high, and ordinary people can participate in it, suitable for the north of China to carry out, China's winter ice period is relatively long Heilongjiang and Jilin formed a scale. Outside of these places, especially in the hot south, local people's understanding of curling is very limited, and the number of fans of the sport is rare.

Curling ground is higher than the ordinary ice requirements, used to make curling ground ice, its toughness must reach a certain level, there must be a certain freezing point on the ice, temperature control to be more accurate and accurate, but also the use of a variety of liquids, such as a certain concentration of ethanol solution, etc., from where it can be seen that the value of the curling ground, the most easily damaged hardware is the ice. Nowadays, many domestic ice rinks have been able to provide standard venues for skating, ice hockey, etc., but these ice rinks take into account the early construction costs and late maintenance costs, as well as comprehensive benefits, and often do not divide the special curling venue on the ice. Sports equipment costs a lot. According to the regulations of the international curling competition, the curling material in the professional competition can only be selected from the granite produced in Scotland and must be polished very fine. If you buy high-quality curlers from abroad, the specific cost is between 120,000 and 130,000 yuan. Even if the most general curling, the cost is more than 40,000, in addition to curling, amateur standard equipment is at least about 2,000 yuan, the better is 4-5 thousand yuan.

Curling professionals and reserve talent number factors

Domestic curling is still in its infancy. The lack of talent is not commensurate with the competitive level. The investigation of the curling team and curling club of Heilongjiang Sports team also found that some coaches did not engage in curling before engaging in curling teaching and training work, and there were some deficiencies in teaching skills and competition experience.

In addition to the current shortage of talent, what is more worrying is that the reserve of talent is very short. The history of this sport in the country is not long, but in such a short period, it has made breakthrough progress, fully showing that curling in the country still has a wide range of development prospects, and there is a great possibility to develop into the advantage of our country, but if there is no reserve talent as support, Even dominant sports can lose their dominance.

Curling training system factors

Many of the curling coaches in our country have transferred to curling from other ice sports. Although most of the coaches have international training in curling, because the time engaged in the sport is not long, the international exchange is also very lacking, just the overall quality of the coaches, is at a serious disadvantage, domestic curling coaches whether cultural accumulation or educational background, there is a big gap with foreign countries. Many coaches have not formed a comprehensive understanding of the various objective laws in the sport, and will only demonstrate for the athletes, but do not know the reasons behind the demonstration actions and skills.

Summary of the Results

At present, our country mainly carries out curling in the form of professional teams, clubs, and colleges, but due to the low popularity rate, the shortage of reserve talents, the alternation of the old and the new have serious problems, which hinders the further development of curling in our country. This chapter investigates and analyzes the current situation of the development of curling in China from four aspects: professional teams, clubs, colleges and universities, and mass curling, and finds out that there are many problems in both competitive curling and mass popularization.





Through summary and analysis, the main factors that affect the development of curling in China at present include hardware factors, such as climate, professional venues, sports equipment, etc., and management factors, such as sports training system, training and selection of reserve talents, as well as social factors. These various factors have resulted in China's curling sport in international competition achieving excellent results, but the domestic visibility is not high, and the number of participants is very small situation. Measures should be taken to promote the healthy and lasting development of curling in China.

Conclusion

The research results showed that the curling sport in China has many problems, as follows.

1. The management system is not sound enough.

At present, China's curling movement is carried out in fewer regions, only the three Eastern provinces and Beijing, Shanghai, and other economically developed big cities have a certain mass base, and reserve talents are mostly concentrated in these areas. If this movement, which has a relatively weak mass base, is to develop quickly and sustainably, it must be supported by the national administration. The national sports management department should make use of the good opportunity of the upsurge of public opinion set off by curling after the 2014 Sochi Winter Olympics, at the same time, give full play to the advantages of the economic level of the South, increase publicity efforts, expand the social impact of curling, and gradually expand the area of curling to make more people understand and participate in the sport. At the same time, from a scientific point of view, the management can only be re-planned, and gradually the dominant power of the development of curling from administrative means to market means, combined with the actual situation of our country to take targeted measures to attract more social resources into the sport, to comprehensively improve the management level, for curling to achieve long-term stable development to lay a good foundation.

2. The quantity and quality of sports venues and equipment are not enough, which affects the popular development of curling in China.

The lack of venues and equipment is the reason why the popularity of curling in China cannot achieve a breakthrough. As far as the current situation is concerned, the domestic curling funds are basically from the government, this status quo cannot be changed in a short period, so in the short future, the government should increase the limit of special curling funds, speed up the construction of venues and equipment facilities, improve venue facilities, and change the serious shortage of curling venues in our country. Let the hardware facilities no longer become a constraint on the development of the sport.

3. Lack of reserve personnel training organization, the selection mechanism is backward.

The training of curling in China is provided by amateur sports schools, but the "talents" cultivated by amateur sports schools have obvious shortcomings in cultural literacy and other aspects, which makes the overall quality of athletes stay low for a long time. In terms of training athletes training system, China should change the way of training curling sports talents, give full play to the role of clubs efficiently, create a comprehensive training management framework, provide more curlers with a platform to improve their skills and comprehensive quality, to provide a strong reserve of competitive curling talents for the selection of outstanding athletes, but also in the limited resources to train more curling reserve talents, to continue the national team in the world Championship to provide a guarantee for the glory.

4. The foundation of scientific research is weak, and the ability of grassroots coaches is insufficient.

The scope of the scientific training model is very extensive, such as basic skills training, training program formulation, talent reserve, and so on. Select beginners from curling enthusiasts whose comprehensive conditions are more suitable for the sport, and carry out scientific training, which is the highest return on talents harvested under the condition of consuming the lowest resources and preparing sufficient backup human resources for the development of this sport in China. Balance coordination and strength of the body are the two biggest advantages of curlers, in this peak period of youth growth, the balance and strength of their targeted training, which is very helpful for their future curling. In addition, a professional athlete, not only should have a certain skill, but also other personal characteristics, such as psychology, cognition, emotion, etc., should reach a certain level. Curling training cannot ignore these negative training so that the talent created can adapt to the new era of talent.





5. The mass base of curling is very weak.

Professional teams get excellent results in international competitions, attract people's attention and try this sport through news reports, and let it gradually penetrate people's lives; In addition, it is necessary to find ways to increase the interest of college students in curling, improve the level of curling technology, and drive people around to participate in curling after going to society in the future; The promotion of curling by the club not only cultivates reserve talents for professional teams, but also provides many people with personal experience of curling. The development of these three will also drive the broad masses to increase their understanding of curling and promote the development of curling to the masses.

Discussion

In recent years, China has actively sent teams to participate in regional and international curling competitions, such as the Curling World Championships, Winter Olympics, World University Winter Games, and World Junior Curling World Championships, etc., the results of the competitions have been successful, and unsuccessful, and some problems have been exposed in the technical and tactical level, psychological state and performance stability. But the players have been trained, and have the experience of participating in international competitions, and according to the survey, the team members are relatively young, with the accumulation of experience and mature technology, there is still a lot of room for development in the future. When the author consulted the data, it was also found that there was more and more research on curling projects in China, and the research on curling techniques and tactics was also more and more in-depth. At the same time, domestic teams are also actively introducing foreign coaches, and often exchange skills and tactics with foreign strong teams to find their shortcomings. With the support of the government and administrative departments, the number of domestic competitions has gradually increased, such as the National University Curling Championship and Yichun International Curling Invitational Tournament, and the number of participating teams has also increased. Not only professional teams participate, but also some universities and curling clubs have formed representative teams to participate, which is conducive to mutual exchange and learning between different regions and teams in China. It is also conducive to the improvement of the overall level of domestic curling. With the reform of the management system, the attention of management departments, the strong support and promotion of the government, and the gradual enrichment of reserve talents, the level of curling sports in our country will be able to compete with the top strong teams.

The vigorous promotion of the government has provided new opportunities for the development of curling. At present, many cities in Northeast China are promoting ice-themed tourism routes, and the local government has attracted people's attention to curling and participating in curling by holding large-scale curling competitions and using local winter ice-themed tourism resources. The government strives to promote and popularize curling and insists on carrying out amateur training so that the number of ordinary people who play curling also begins to increase.

With the continuous development of our country's economy and the continuous improvement of national income, the development of curling has a solid economic foundation. Economic development level and residents' income level determine the development of the sports market, along with the improvement of living standards and spiritual needs of our country's residents, healthy and fashionable, the curling sport which requires less age and physical ability will certainly attract more people's interest. With the increase in people's income, their sports consumption is also different from the past, which is one of the main judging factors for the huge potential of the sports market. Shortly, curling will certainly become a popular sport and contribute to enriching people's material and spiritual lives.

In the second chapter of this article, experts put forward that if China wants to improve the level of curling and achieve the strategy of winning the Olympic Games, it must establish a set of curling development mode that suits the Chinese system. According to the influencing factors in the development process of China's curling, the author puts forward a development model that is in line with the national conditions, including improving the management system, attaching importance to and promoting the development of curling at the national level, and cooperating with professional teams, universities, clubs, and society to solve the previously existing problems of talents not entering and leaving smoothly, and jointly promote curling to the public. This is consistent with the research results of Zhu et al (2012), at the same time paying attention to the development of curling scientific research and industry, and improving the development level of China's curling. This chapter also analyzes the development prospect of the





curling sport, which is intended to show that the curling sport has the possibility of popularization and marketability in our country and has broad prospects for development.

Recommendation

1. Relevant departments should pay more attention to curling and increase support for it, and professional teams, universities, and clubs should work together to promote the popularization of curling.
2. We should increase the investment in the construction and maintenance of curling venues, and actively cultivate the curling industry chain.
3. The state should give full play to the role of ordinary higher education institutions in cultivating sports talents, and establish a hierarchical, systematic, and comprehensive training management system.
4. We should improve the personal quality of curling and integrate scientific research into curling training.
5. Through the media network and other publicity, so that the broad masses know and understand the curling sport, attract more people to pay attention to this sport, thus expanding the curling population.

References

- Cao, D., & Li, Y. (2012). Overview of 2011~2012 National Curling Championship. *Ice and Snow Sports*, 34(3), 41-47.
- Clement, D. (2012). An Analysis of Curling Strategy. *Journal of Quantitative Analysis in Sports*, 8(3), 67-73.
- Guo Q. (2011). Research on the development status and market prospect of curling in China. *Capital Institute of Physical Education*, 14(5), 156-165.
- Hong M. (2011). The development of curling in China from the 2010 World Curling Championships. *Liaoning Sports Science and Technology*, 33(1), 101-104.
- Hong, M. (2010). Comparative analysis of curling talent training in China, Japan, and South Korea in the Asia-Pacific region. *Sports World: Academic Edition*, 10(1), 58-65.
- Hong-Chen, L. I., Shui-Sheng, X. U., Qing-Chuang, L., Li, J., Hui-Qiu, G., & School, H. S. (2014). Technical Performance and Enlightenment of Chinese Curling Male Team in 2014 World Championship. *China Winter Sports*, 8(2), 118-125.
- Li H. (2011). *Research on the development status and strategy of curling projects in China*. Master's Thesis Master's Thesis: Harbin Institute of Physical Education, Harbin Institute of Physical Education.
- Liu, D. (2012). Research on curling courses offered by colleges and universities in Heilongjiang Province under the advantages of ice and snow resources. *Journal of Harbin Institute of Physical Education*, 30(2), 22-25.
- Meiling H. (2013). Review of the 2013 Women's Curling World Championships. *Ice and Snow Sports*, 35(3), 39-44.
- Wang Y., Su H., & Li X. (2013). Characteristics of curling and its psychological training. *Heilongjiang Science and Technology Information*, 36, 67-67.
- Wu, H. (2011). The development trend of women's curling in China from the results of women's curling team. *Ice and Snow Sports*, 33(2), 34-37.
- Yu, L., Wang, R., & Zhou, Y. (2012). Research on the origin and development of curling. *Sports Culture Guide*, 3, 133-136.
- Zhang B., & Li H. (2009). Feasibility analysis of curling projects carried out by some universities in Northeast China. *Ice and Snow Sports*, 31(3), 1-10.
- Zhou Yuhe. (2012). The development status of curling in China from the 2011 Pan Pacific Curling Championship. *Liaoning Sports Science and Technology*, 34(6), 101-104.
- Zhu Z, Su H, Wang Y, & Mu L. (2012). Analysis of the current status of curling research. *Snow Sports*, 34(5), 33-37.

