



Journal Website

Article history:

Received 13 June 2024

Revised 11 August 2024

Accepted 10 September 2024

Published online 14 September 2024

# International Journal of Education and Cognitive Sciences

Volume 5, Issue 3, pp 147-156



E-ISSN: 3041-8828

## The Pattern of Educational System Participation in the Development of Elite Sports

Mehri Sattari<sup>1</sup>, Habib Mohammadpour Yaghini<sup>2\*</sup>, Mohammad Rahim Najafzadeh<sup>3</sup>, Farrokhlaha Najafzadeh<sup>4</sup>

<sup>1</sup>. PhD student, Department of Sports Management, Tabriz Branch, Islamic Azad University, Tabriz, Iran.

<sup>2</sup>. Assistant Professor, Department of Sports Management, Tabriz Branch, Islamic Azad University, Tabriz, Iran (Corresponding Author).

<sup>3</sup>. Associate Professor, Department of Sports Management, Tabriz Branch, Islamic Azad University, Tabriz, Iran.

<sup>4</sup>. Assistant Professor, Department of Sports Management, Tabriz Branch, Islamic Azad University, Tabriz, Iran.

\* Corresponding author email address: mohammadpour@iaut.ac.ir

### Article Info

#### Article type:

Original Research

#### How to cite this article:

Sattari M, Mohammadpour Yaghini H, Najafzadeh MR, Najafzadeh F. (2024). The Pattern of Educational System Participation in the Development of Elite Sports. *International Journal of Education and Cognitive Sciences*, 5(3), 147-156.

<https://doi.org/10.61838/kman.ijecs.5.3.17>



© 2024 the authors. Published by Iranian Association for Intelligence and Talent Studies, Tehran, Iran. This is an open access article under the terms of the Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0) License.

### ABSTRACT

**Purpose:** This study was conducted with the aim of presenting a model for the participation of the educational system in the development of elite sports.

**Methods and Materials:** The present research is applied in nature and employs a qualitative method for data collection. The statistical sample of this research consisted of 22 experts and specialists in physical education, officials from the physical education departments of the Ministry of Education, deputies and physical education and health experts from provincial centers, as well as directors and deputies from the elite sports department of the Ministry of Sports and Youth across the provinces. The sampling process was purposeful and continued until data saturation was achieved. Data collection was carried out through semi-structured in-depth interviews. The data obtained from the interviews were analyzed using open, axial, and selective coding processes, and the components of the qualitative model (grounded theory), including the main category, causal conditions, intervening conditions, context, strategy, and outcomes, were identified. The final model was presented based on the Strauss and Corbin's paradigmatic model.

**Findings:** The results indicated that based on the axial coding and common concepts between the categories under study, 15 major categories were extracted. These categories included interaction with non-sports organizations, interaction with sports organizations, economic factors and financial supporters, human resources, sports equipment, sports facilities, managerial factors, development of principled curricula, implementation of appropriate evaluation systems, the role of the family, organizing sports events, attention to extracurricular programs in schools, use of media, the role of teachers and school administrators, and individual factors for the development of elite sports.

**Conclusion:** Based on the findings of this study, the educational system can contribute to the development of elite sports in the country through categories such as interaction with non-sports organizations, interaction with sports organizations, economic factors and financial supporters, human resources, securing sports equipment for elite sports development, sports facilities, managerial factors, development of principled curricula, implementation of appropriate evaluation systems, the role of the family, organizing sports events for talent development, attention to extracurricular programs in schools, use of media, the role of teachers and school administrators, and individual factors.

**Keywords:** Elite Sports, Educational System, Barriers, Development

## 1. Introduction

Elite sports, as one of the significant sports events, encompass a range of activities aimed at achieving higher performance, creating a space for interaction and synergy with others, and developing both physical and spiritual strength. Elite sports are offered in various sectors of society, including the educational system, sports clubs, sports federations, and universities under different sports disciplines. Elite sports are of immense importance in society for several reasons, including the enhancement of physical strength, strengthening of the immune system, reduction of the risk of various diseases, improvement of mental strength and stress tolerance, increase in social interaction, and the development of communication and collaboration skills (Carson et al., 2020; Thompson et al., 2022).

Like any other system, elite sports must define its objectives, strategies, and operational plans to prevent repetition, misdirection, and the wastage of financial, human, physical, and informational resources. However, in our country, structured and organized elite and professional sports receive less attention. The low level of public participation in mass sports and the lack of a unified, legal, and executive system for talent identification and athlete training contribute to the weaknesses in elite sports and the reduced opportunities for emerging athletic talent, highlighting the need for focused policy-making. Therefore, planning in the area of professional and elite sports is felt more urgently than ever (Mozaffari et al., 2022).

A review of research studies shows that the participation of the educational system in the development of elite sports is of great importance (Shahvali Kohshouri et al., 2020). Extensive research has been conducted on the development of elite sports and the role of the educational system in this area. For example, a 2013 study demonstrated that the effective involvement of schools in the development of elite sports is among the key factors in creating a strong cadre of professional athletes and strengthening foundational sports in various countries (Akbaba, 2013). In this regard, some studies have focused on models of educational system participation in the development of elite sports. A 2017 study highlighted the impact of elite sports development on a country's economic growth as a model for educational system participation in the development of elite sports (Naghypour Givi & Rasaee Rad, 2023). Additionally, another study in 2018 demonstrated how schools can contribute to the development of elite sports through

participation in both domestic and international sports (Rasekh et al., 2015).

A review of broad studies conducted in Iran in the field of elite sports, such as studies by Farahani et al. (2016) and Rasekh et al. (2016), raises doubts and uncertainties regarding the application of the produced models and results (Farahani et al., 2017; Rasekh et al., 2015). These produced models typically reflect macro-level policy processes that are not well-distributed in the daily lives of various social classes. However, the method of utilizing these study results in policy-making processes has not been effective. What has caused people to comprehend general sports ideas? What types of decision-making exist in this regard? Countries worldwide annually organize large-scale programs to ensure these programs are executed in practical terms according to the people's needs (Farahani et al., 2017; Rasekh et al., 2015). The development of elite sports in Iran still faces challenges such as a lack of facilities and equipment and insufficient active participation in international competitions. Examining the reasons behind these challenges and finding appropriate solutions can help develop the country's elite sports (Hoseini et al., 2022). Moreover, in many Iranian schools, sports activities are conducted inadequately, and improving and increasing their level can contribute to the better health and academic performance of students (Khosravizadeh et al., 2014).

Research studies have identified challenges and barriers on the path to professionalizing elite sports in the country. These include the perspective of sports managers and officials towards elite sports hubs and talent identification centers, the impact of political issues on the performance of sports organizations and institutions, the comprehensive system for supporting elite athletes and coaches, meritocracy in appointing sports managers and coaches, integrated, executive, and structured plans for foundational sports, the economic condition of families with athletic talent, appropriate facilities and equipment for professional sports, and the zoning and clustering of sports across different regions of the country (Rezaei, 2022; Seyed Bagheri & Sharifian, 2017; Shomali & Keshkar, 2022). Kashef (2012) reported that hereditary and environmental factors are among the significant elements in the professionalization of athletes. Noori and Sadeghi (2018) showed that talent identification studies for athletes with elite potential are still in their infancy, and no comprehensive model encompassing all dimensions has yet been proposed.

Few models consider intrinsic indicators, such as genetics, in identifying appropriate sports talent. However,

most research identifies models based on post-training skill evaluations as decisive (Sharbatzadeh et al., 2022; Yousefian, 2022). Another group of studies identifies the most significant economic barriers to implementing the general policies of Article 44 of the Constitution in professional sports in the Islamic Republic of Iran, which include the following: instability in the country's monetary and fiscal policies, lack of foreign investors' participation in domestic capital markets, state ownership of many industries, factories, institutions, and sports and non-sports organizations, the country's low national income per capita, lack of economic security, and the high risk of investment in professional sports. Additionally, insufficient allocation of television broadcasting rights to clubs, unfair competition between state-owned and private clubs, centralized ticketing in the professional league organization, and the lack of transparency in the financial and economic information of clubs, the professional league organization, and sports federations (Yousefian, 2022).

Furthermore, it was concluded that the development of talent identification as the foundation of professional and elite sports can lead to the success of the country's sports on global and international stages. The main barriers to talent identification were identified as human, infrastructural, financial, procedural, managerial, scientific, research, and supportive barriers, with human barriers being the most significant (Brari et al., 2011).

Given the importance of elite sports in society and the critical role of the educational system in its development, achieving appropriate educational programs and developing suitable sports facilities in schools and universities can ensure the health and academic performance of students. Additionally, the participation of the educational system in the development of elite sports can help improve the performance of athletes and national teams (Longmuir & Tremblay, 2016).

However, the role of the Ministry of Education in shaping the vision of professional and elite sports is a complex and multi-faceted issue that has attracted the attention of researchers, policymakers, and stakeholders. Reviewing the current approaches and policies of the educational system regarding sports and participation in the development of elite sports can help identify the strengths and weaknesses of these policies and provide useful suggestions for their improvement. The educational system's participation in the development of elite sports can contribute to the growth and advancement of Iran's elite sports on international platforms

and positively impact the country's recognition in the world of sports (Hamidi et al., 2017).

Although the distribution of these resources is often a controversial issue, as educational ministries must balance competing priorities and address equity concerns across different regions, socio-economic groups, and sports disciplines (Brownell, 2023). Insufficient or unequal funding can lead to inequality in access to quality coaching, training facilities, and competitive opportunities, potentially hindering the development of future athletes and weakening the overall competitiveness of a country's professional and elite sports programs (Yousefian, 2022).

Nevertheless, this issue faces numerous challenges in Iran, and the current approaches and policies of the educational system regarding sports and participation in the development of elite sports have not been fully and transparently articulated (Shabani & Khaje, 2017). Since the participation of the educational system in the development of elite sports can contribute to the growth and advancement of Iran's elite sports on international platforms and given the existing challenges in this area in our country, the researcher in this study seeks to answer the following questions: What is the role of the educational system in the development of the country's elite sports? What model of educational system participation can be presented for the development of elite sports in the country?

## 2. Methods and Materials

### 2.1. Study Design and Participants

The research method in this study is qualitative and uses the grounded theory approach presented by Strauss and Corbin to construct the research's conceptual model.

The statistical population of this research includes the following individuals:

- Researchers and university professors currently teaching in the Ministry of Education.
- The board of directors, secretary, and experts of the Student Sports Federation.
- The board of directors and secretaries of the provincial student sports boards.
- Coaches and managers of the national student teams.
- Deputies and experts in physical education and health from the provincial centers.
- Directors and deputies of elite sports from the provincial departments of sports and youth.

For determining the research sample and selecting these groups of experts, purposive and census sampling was used

until theoretical saturation was reached. In the present study, the sampling process was such that interviewees were first asked to introduce other knowledgeable individuals in connection with the research topic if they were aware of any. This sampling process continued until the researcher concluded, based on the research findings, that the new data were repetitions of previous information and did not provide new conceptual data requiring further coding or expansion. At this point, sampling was completed. Accordingly, after conducting 22 interviews, data analysis showed that no new information was added to the previous data. Indeed, it was determined during the 22nd interview that theoretical saturation was reached. Therefore, the sample size for this study was determined to be 22 participants.

Initially, the theoretical foundations and research background related to the topic were systematically reviewed, analyzed, and organized. The main goal of this research phase was to investigate and discover the research concepts and categories. Therefore, in this section, to achieve a model of the role of the educational system in the development of the country's elite sports, the necessary qualitative data were collected through in-depth individual interviews with scientifically and athletically knowledgeable experts who were purposively selected. The grounded theory method was used to identify and analyze the concepts and categories as the research methodology. In the next phase, based on the obtained information, a model of educational system participation in the development of the country's elite sports was presented.

## 2.2. Data Collection Tools

In this study, the researcher examined the research related to the dissertation topic and identified the main and influential components in the development of elite sports. These factors were considered as guides for interviews during qualitative interviews. In the second phase, for the data collection process, qualitative interviews were conducted with experts and specialists. Semi-structured interviews were used to collect qualitative research data. In this regard, the interview guide was first sent to the interviewees, which included the title, objectives, and a general question about the interview topic to familiarize the interviewees with the discussion. During the interview, various methods, such as note-taking and recording the interview's flow on audio or video tapes, were used to register the information with the interviewees' consent.

Immediately after the interview, detailed notes about the interview flow were taken.

To ensure the validity of the qualitative section of the research and to verify the accuracy of the findings, the researcher utilized valuable input from professors familiar with this area and experienced university experts. Additionally, feedback from participants was sought in analyzing and interpreting the data. In the present study, reliability was used as a criterion for research quality, and the results showed that the sub-criteria of research input validity, validity of analyses conducted in the research, and transferability of the research were acceptable.

Also, to calculate the reliability of the conducted interviews, the researcher used the test-retest reliability method and the intra-topic agreement method. For calculating test-retest reliability, a few interviews were selected from the sample, and each was coded twice in a short period. Then, the specified code with two time intervals between each interview was compared. For consistency and stability in coding, the researcher used the test-retest method. In each interview, similar codes at two intervals were marked as "agreement," while those that differed were marked as "disagreement."

## 2.3. Data Analysis

In the present research, coding was used for analyzing the interviews. The most important part of the analysis process in the grounded theory method is "coding." The process of separating the collected data from sampling, describing them, and expressing them in short terms in a table is known as coding. In general, this strategy transforms the data obtained from informational sources into a set of codes. Common codes are then converted into concepts, which are then transformed into categories, and finally, theory is generated from the categories.

## 3. Findings and Results

The demographic information of the participants in this study indicates that 80% were male ( $n = 13$ ) and 20% were female ( $n = 9$ ). Regarding educational background, 73.33% ( $n = 16$ ) held degrees in physical education, while 20% ( $n = 6$ ) had degrees in other fields. In terms of work experience, 20% ( $n = 3$ ) had less than 10 years of experience, 33.33% ( $n = 12$ ) had between 11 and 20 years, and 46.67% ( $n = 7$ ) had over 21 years of experience. Most participants held a doctoral degree (66.67%,  $n = 15$ ), while 33.33% ( $n = 7$ ) held a master's degree. As for workplace distribution, 46.67% ( $n$



= 16) were employed in sports organizations, and 53.33% (n = 8) worked in universities.

During the open coding phase, based on paragraph coding, 384 initial concepts were extracted by the researchers. After editing, 68 initial concepts were identified as final concepts. In the conceptual coding phase, the major categories were classified based on dimensions. In this

phase, the generated concepts were listed logically and analytically. The concepts extracted in the initial coding phase were re-analyzed to form major categories in the focused or secondary coding phase.

Next, axial coding was performed in a combined manner, and the content of each category was assigned. The axial coding methods are presented in Table 1.

**Table 1**

*Open and Axial Codes*

Secondary Open Codes	Initial Open Codes (Concepts)
Interaction with non-sports organizations	Cooperation with non-governmental organizations and charities to attract funding for strengthening school sports facilities. Attracting public cooperation, municipalities, and other local organizations. Interaction between the Ministry of Education and the Ministry of Health (at the macro level). Aligning the perspectives of politicians and policymakers to emphasize sports in education.
Interaction with sports organizations	Collaboration with sports organizations to rent or allocate sports spaces. Interaction of internal and external school sports centers with students' parents. Signing a cooperation agreement between the Ministry of Education, the Ministry of Sports and Youth, and sports federations. Interactions and cooperation among organizations involved in elite sports.
Economic factors and financial sponsors	Attracting sponsors for school sports teams. Providing the necessary conditions for sponsor participation in intra-school and inter-school sports competitions. Reducing the costs of venues where students engage in sports. Offering promotional rates and discount vouchers for students participating in sports activities. Investing in public sports. Public financial contributions to elite sports.
Human resources	Utilizing experienced and specialized teachers. Leveraging the capacities of other teachers. Involving famous sports personalities. Drafting regulations to support social values and norms concerning sports. Using national champions as role models to promote sports among students.
Securing sports equipment for elite sports development	Updating sports equipment. Providing suitable and sufficient physical activity equipment. Ensuring the safety of sports equipment through standardization. Needs assessment for sports facilities and infrastructure. Fair distribution of sports equipment and facilities across different schools in the city, with attention to the safety of sports equipment and facilities.
Sports facilities	Ensuring sports justice in the distribution of student sports facilities nationwide. Creating appealing venues (design, color, architecture) for physical activities. Establishing standard sports venues in schools. Using natural spaces for sports development.
Managerial factors	Physical education should only be taught by a qualified sports teacher. Scheduling physical education classes at appropriate times. Creating and strengthening sports associations in schools. Developing elite sports documents in education. Ensuring consistency in elite sports policy in the educational system. High-level educational managers' attention to the development of elite sports.
Developing principled curricula	Including scientific and theoretical information in school sports. Encouraging teachers to adopt modern sports disciplines. Designing educational content by individuals knowledgeable about educational, ethical, and social issues. Increasing the duration of physical education classes. Increasing the number of weekly physical education classes. Encouraging physical activity during class time, breaks, and even recess.
Implementing appropriate evaluation systems	Utilizing continuous and process-based evaluation systems. Assessing students individually and offering sports activities based on individual abilities. Providing multi-axis evaluation norms such as physical, moral, etc. (evaluation should not be solely focused on physical performance).
The role of the family	Promoting sports and recreation in schools among students and parents. Organizing sports programs for family participation alongside students. Engaging parents in school sports activities. Providing sufficient information to students and parents about the risks of physical inactivity.
Organizing sports events for talent development	Emphasizing the organization of sports competitions at the regional level and between schools. Increasing the number of sports events. Emphasizing sports competitions at the classroom level. Organizing sports events in schools and the educational system.
Focus on extracurricular programs in schools	Attention to extracurricular sports activities. Emphasizing the organization of sports competitions at the school level and outside official school hours. Increasing the number, diversity, and appeal of sports camps.
Use of media	Producing promotional videos about the quantity and quality of student sports. Using billboards to highlight the necessity and benefits of recreation and sports. Media coverage of student sports competitions and activities. Teaching elite sports with the help of media and specialized software. Providing information on sports events through media. Using information technology and modern knowledge to promote elite sports development.
The role of teachers and school administrators	Encouraging teachers and administrators to engage in physical activity. Teaching modern sports disciplines to teachers through in-service training. Changing the mindset of administrators and teachers (they need to understand that sports are not just for recreation but are also educational). Properly teaching basic sports in schools. The attention of school administrators and physical education teachers. Teaching educational and elite sports in schools.
Individual factors	Attention to students' psychological motivations. Creating a positive attitude among students toward the psychological and social effects of sports activities. Raising the nutritional and sports knowledge of students' parents.

Based on the results of axial coding and the common concepts among the categories, 15 major categories were extracted, including interaction with non-sports organizations, interaction with sports organizations, economic factors and financial sponsors, human resources,

sports equipment, sports facilities, managerial factors, developing principled curricula, implementing appropriate evaluation systems, the role of the family, organizing sports events, focus on extracurricular programs in schools, use of

media, the role of teachers and school administrators, and individual factors for the development of elite sports.

**Table 2**

*Final Summary of the Coding for Research Categories*

Category	Concept	Codes
Causal Conditions	Interaction with non-sports organizations	Cooperation with non-governmental organizations and charities to attract funding for strengthening school sports facilities. Attracting public cooperation, municipalities, and other local organizations. Interaction between the Ministry of Education and the Ministry of Health (at the macro level). Aligning the perspectives of politicians and policymakers to emphasize sports in education.
	Interaction with sports organizations	Collaboration with sports organizations to rent or allocate sports spaces. Interaction of internal and external school sports centers with students' parents. Signing a cooperation agreement between the Ministry of Education, the Ministry of Sports and Youth, and sports federations. Interactions and cooperation among organizations involved in elite sports.
	Individual factors	Attention to students' psychological motivations. Creating a positive attitude among students toward the psychological and social effects of sports activities. Raising the nutritional and sports knowledge of students' parents.
Contextual Conditions	The role of the family	Promoting sports and recreation in schools among students and parents. Organizing sports programs for family participation alongside students. Engaging parents in school sports activities. Providing sufficient information to students and parents about the risks of physical inactivity.
	Sports facilities	Ensuring sports justice in the distribution of student sports facilities nationwide. Creating appealing venues (design, color, architecture) for physical activities. Establishing standard sports venues in schools. Using natural spaces for sports development.
	Human resources	Utilizing experienced and specialized teachers. Leveraging the capacities of other teachers. Involving famous sports personalities. Drafting regulations to support social values and norms concerning sports. Using national champions as role models to promote sports among students.
	Managerial factors	Physical education should only be taught by a qualified sports teacher. Scheduling physical education classes at appropriate times. Creating and strengthening sports associations in schools. Developing elite sports documents in education. Ensuring consistency in elite sports policy in the educational system. High-level educational managers' attention to the development of elite sports.
Intervening Conditions	Use of media	Producing promotional videos about the quantity and quality of student sports. Using billboards to highlight the necessity and benefits of recreation and sports. Media coverage of student sports competitions and activities. Teaching elite sports with the help of media and specialized software. Providing information on sports events through media. Using information technology and modern knowledge to promote elite sports development.
	The role of teachers and school administrators	Encouraging teachers and administrators to engage in physical activity. Teaching modern sports disciplines to teachers through in-service training. Changing the mindset of administrators and teachers (they need to understand that sports are not just for recreation but are also educational). Properly teaching basic sports in schools. The attention of school administrators and physical education teachers. Teaching educational and elite sports in schools.
	Focus on extracurricular programs in schools	Attention to extracurricular sports activities. Emphasizing the organization of sports competitions at the school level and outside official school hours. Increasing the number, diversity, and appeal of sports camps.
Strategies	Developing principled curricula	Including scientific and theoretical information in school sports. Encouraging teachers to adopt modern sports disciplines. Designing educational content by individuals knowledgeable about educational, ethical, and social issues. Increasing the duration of physical education classes. Increasing the number of weekly physical education classes. Encouraging physical activity during class time, breaks, and even recess.
	Implementing appropriate evaluation systems	Utilizing continuous and process-based evaluation systems. Assessing students individually and offering sports activities based on individual abilities. Providing multi-axis evaluation norms such as physical, moral, etc. (evaluation should not be solely focused on physical performance).
Outcomes	Organizing sports events for talent development	Emphasizing the organization of sports competitions at the regional level and between schools. Increasing the number of sports events. Emphasizing sports competitions at the classroom level. Organizing sports events in schools and the educational system.
	Securing sports equipment for elite sports development	Updating sports equipment. Providing suitable and sufficient physical activity equipment. Ensuring the safety of sports equipment through standardization. Needs assessment for sports facilities and infrastructure. Fair distribution of sports equipment and facilities across different schools in the city. Ensuring the safety of sports equipment and facilities.

As shown in Table 2, "interaction with non-sports organizations," "interaction with sports organizations," and "individual factors" were categorized as causal conditions. Four elements—"the role of the family," "sports facilities," "human resources," and "managerial factors"—were classified as contextual factors. Three elements—"use of

media," "the role of teachers and school administrators," and "focus on extracurricular programs in schools"—represented the intervening conditions. Two strategies were identified: "developing principled curricula" and "implementing appropriate evaluation systems." Finally, the outcomes were categorized into "organizing sports events for talent

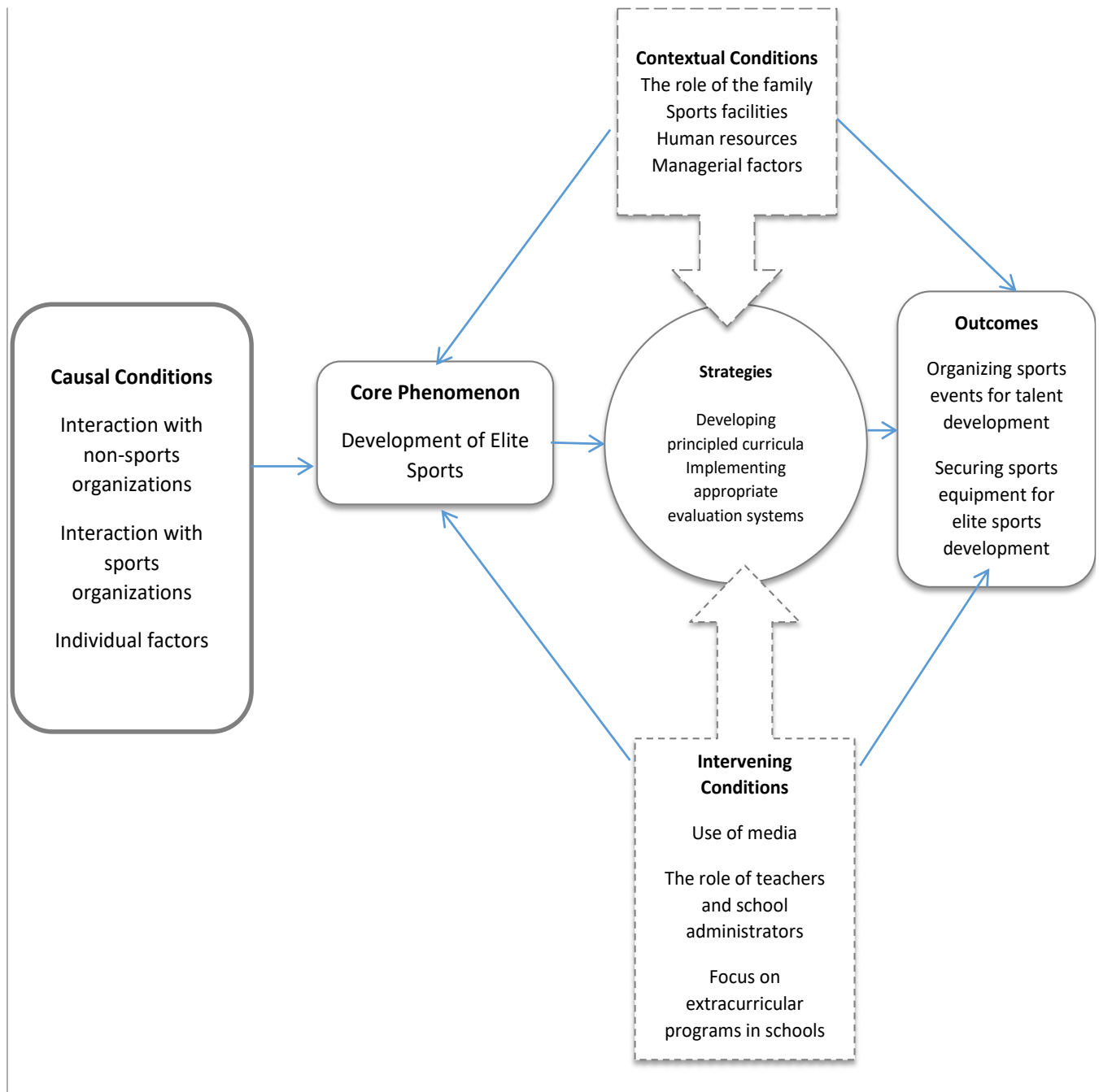
development" and "securing sports equipment for elite sports development."

Next, axial coding was combined, and the content of each was placed in the form of selective codes. Based on the

combination of the presented categories, the final model of the study is shown in Figure 1.

**Figure 1**

*Final Model of the Study*



The assumptions of the qualitative model of this research were as follows:

The first assumption of the study indicated that the development of elite sports is the primary and central factor

in presenting the model of educational system participation in the development of elite sports in the country.

The second assumption of the study indicated that interaction with non-sports organizations, interaction with sports organizations, and individual factors are the causal

factors in presenting the model of educational system participation in the development of elite sports in the country.

The third assumption of the study indicated that the four components of the role of the family, sports facilities, human resources, and managerial factors are the contextual conditions for presenting the model of educational system participation in the development of elite sports in the country.

The fourth assumption of the study indicated that the three factors of media use, the role of teachers and school administrators, and attention to extracurricular programs in schools are intervening conditions for presenting the model of educational system participation in the development of elite sports in the country.

The fifth assumption of the study indicated that the two categories of developing principled curricula and implementing appropriate evaluation systems are strategies for presenting the model of educational system participation in the development of elite sports in the country.

The sixth assumption of the study indicated that the two categories of organizing sports events for talent development and securing sports equipment for elite sports development are the important outcomes in presenting the model of educational system participation in the development of elite sports in the country.

#### 4. Discussion and Conclusion

The overall goal of the present study was to present a model of educational system participation in the development of elite sports in the country. The results were examined in five categories: causal factors, contextual factors, intervening conditions, strategies, and outcomes. Finally, the paradigmatic model of the role of the educational system in the development of elite sports was presented.

According to the research findings, in the section on causal conditions, three components were identified: interaction with non-sports organizations, interaction with sports organizations, and individual factors. The findings in this category highlight the complex mutual impact of the factors influencing the educational sector's participation in the development of elite sports. Identifying these three key components—interaction with non-sports organizations, interaction with sports organizations, and individual factors—emphasizes the multifaceted nature of this relationship and aligns with contemporary understandings of sports development systems.

These findings can be interpreted within Bronfenbrenner's ecological systems theory, as applied by Holt et al. (2017) in the context of sports development. The three identified components correspond to different ecological levels: individual factors relate to the microsystem, interaction with sports organizations to the mesosystem, and interaction with non-sports organizations to the exosystem and macrosystem. This ecological perspective helps explain the interconnected and nested nature of the causal factors affecting educational participation in elite sports (Holt et al., 2017).

Additionally, these findings align with De Bosscher et al.'s (2006) SPLISS model (Sports Policy Factors Leading to International Sporting Success), which emphasizes the importance of an integrated approach to elite sports development. The interactions between the educational sector and sports and non-sports organizations, as identified in this study, reflect SPLISS's focus on coordinated efforts across different policy domains (De Bosscher et al., 2006). Including individual factors alongside organizational interactions demonstrates a nuanced understanding of how educational institutions contribute to elite sports. This indicates that while collaborations and systemic policies are crucial, the role of education in elite sports development is also shaped by micro-level factors such as teacher expertise, student-athlete motivation, and school leadership (De Bosscher et al., 2007).

Overall, these findings provide a comprehensive framework for understanding the factors influencing educational participation in elite sports. They highlight the need for a systemic approach that considers both macro-level organizational interactions and micro-level individual factors. This holistic view offers valuable insights for policymakers and stakeholders seeking to enhance the educational sector's contribution to elite sports development.

In the section on contextual conditions for the development of elite sports, four components—family roles, sports facilities, human resources, and managerial factors—were identified as key contextual factors. The findings highlight four critical contextual factors that influence the Ministry of Education's participation in the development of elite sports: family roles, sports facilities, human resources, and managerial factors. These components form a complex ecosystem that shapes the landscape of elite sports development within the educational context.

The role of families emerges as a fundamental element in this framework. The family unit acts as the primary social agent for young athletes, often introducing them to sports



and providing initial support (Holt et al., 2008). Parental involvement has been shown to significantly influence an athlete's trajectory toward elite performance. Therefore, the Ministry of Education's ability to engage with and leverage family support systems may be a crucial factor in strengthening elite sports development (Godfrey & Eys, 2020).

Sports facilities represent the necessary physical infrastructure for nurturing athletic talent. The availability, quality, and accessibility of these facilities in educational institutions can significantly impact the Ministry's capacity to develop athletes at the elite level. Adequate facilities not only provide the tools for practice and competition but also signify an organizational commitment to sports excellence, potentially attracting talented individuals to pursue sports careers within the educational system (De Bosscher et al., 2007).

Human resources, including coaches, trainers, and support staff, constitute another critical contextual factor. The expertise and dedication of these professionals are instrumental in identifying, nurturing, and refining athletic talent. The Ministry of Education's ability to attract, retain, and develop high-quality human resources in sports-related roles may have a significant impact on its effectiveness in nurturing elite-level athletes (Sotiriadou & De Bosscher, 2018).

Managerial factors, including policies, organizational structures, and strategic planning, form the overarching framework within which the other contextual elements operate. Effective management practices can optimize resource allocation, coordinate efforts among various stakeholders, and create a supportive environment for sports development. The Ministry's approach to sports management, including its integration with broader educational goals, can profoundly influence the outcomes of elite sports development initiatives (De Bosscher et al., 2006).

These four components do not exist in isolation but interact in complex ways to create a comprehensive environment for sports development. For instance, well-designed sports facilities may attract skilled coaches and support staff, while effective management practices can enhance family engagement and optimize facility use. Conversely, deficiencies in one area may create bottlenecks that hinder overall progress in elite sports development (Naghipour Givi & Rasae Rad, 2023).

It is important to note that the relative importance of these contextual factors may vary across different cultural,

economic, and political contexts. For example, in some societies, family roles may play a more dominant role in shaping sports careers, while in others, access to advanced facilities may be the primary driver of sports excellence (Sutcliffe et al., 2024). Furthermore, the Ministry of Education's participation in elite sports development must be considered within the broader context of educational priorities and resource constraints. Balancing sports excellence with other educational goals presents challenges and opportunities for policymakers and administrators (Mirzaei Kalar et al., 2020).

### Authors' Contributions

All authors significantly contributed to this study.

### Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

### Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

### Acknowledgments

We hereby thank all individuals for participating and cooperating us in this study.

### Declaration of Interest

The authors report no conflict of interest.

### Funding

According to the authors, this article has no financial support.

### Ethical Considerations

In this study, to observe ethical considerations, participants were informed about the goals and importance of the research before the start of the interview and participated in the research with informed consent.

### References

Akbaba, B. (2013). The attitudes of pre service history teachers towards teaching profession and technology and their self efficacy about usage teaching materials. *International Journal*

- of Academic Research, 5(5). <https://doi.org/10.7813/2075-4124.2013/5-5/B.14>
- Brari, M., Elahyari, A., & Hosaingholi, T. (2011). Qualitative inquiry and research design: choosing among five approaches. *Tehran: Negah Danesh*.
- Brownell, A. (2023). The Relationship of Multidimensional Athlete Characteristics Versus Competition Performance and Participation in American Football Players. [https://uknowledge.uky.edu/khp\\_etds/108/](https://uknowledge.uky.edu/khp_etds/108/)
- Carson, R. L., Kuhn, A. P., Moore, J. B., Castelli, D. M., Beighle, A., Hodgins, K. L., & Dauenhauer, B. (2020). Implementation evaluation of a professional development program for comprehensive school physical activity leaders. *Preventive Medicine Reports*, 19, 101109. <https://doi.org/10.1016/j.pmedr.2020.101109>
- De Bosscher, V., De Knop, P., & van Bottenburg, M. (2007). *Sports policy factors leading to international sporting success*. VUBPress. <https://www.tandfonline.com/doi/abs/10.1080/16184740600955087>
- De Bosscher, V., De Knop, P., Van Bottenburg, M., & Shibli, S. (2006). A conceptual framework for analysing sports policy factors leading to international sporting success. *European Sport Management Quarterly*, 6(2), 185-215. <https://doi.org/10.1080/16184740600955087>
- Farahani, A., Keshavarz, L., & Sadeghi, A. (2017). The Design of strategies in development Iran elite sport. *Applied Research in Sport Management*, 5(3), 127-142. [https://arsmb.journals.pnu.ac.ir/?\\_action=articleInfo&article=3446&lang=en](https://arsmb.journals.pnu.ac.ir/?_action=articleInfo&article=3446&lang=en)
- Godfrey, M., & Eys, M. (2020). Parental involvement in the transmission and development of youth athletes' role responsibilities. *International Journal of Kinesiology in Higher Education*, 4(1), 1-17. <https://doi.org/10.1080/24711616.2019.1633707>
- Hamidi, P. D., Vahdani, P. D., Khabiri, P. D., & Alidoust, P. D. (2017). Developing a Strategic Plan for Physical Education and Sports Activities at the Ministry of Education. *Quarterly Journal Of Family and Research*, 14(1), 33-50. <http://qjfr.ir/article-1-242-en.html>
- Holt, N. L., Neely, K. C., Slater, L. G., Camiré, M., Côté, J., Fraser-Thomas, J., MacDonald, D., Strachan, L., & Tamminen, K. A. (2017). A grounded theory of positive youth development through sport based on results from a qualitative meta-study. *International Review of Sport and Exercise Psychology*, 10(1), 1-49. <https://doi.org/10.1080/1750984X.2016.1180704>
- Holt, N. L., Tamminen, K. A., Black, D. E., Sehn, Z. L., & Wall, M. P. (2008). Parental involvement in competitive youth sport settings. *Psychology of Sport and Exercise*, 9(5), 663-685. <https://doi.org/10.1016/j.psychsport.2007.08.001>
- Hoseini, S. A., Razavi, S. M. H., Amirnejad, S., & Hoseini, S. E. (2022). Designing a Gender Equality Model in Iranian Sports (with Emphasis on Championship and Professional Sports). *Sport Management and Development*, 11(1), 185-207. <https://doi.org/10.22124/jsmd.2022.6295>
- Khosravizadeh, E., Shahmansouri, E., & Roshanzadeh, J. (2014). Inhibitor Factors to Girl Students' Participation in Out-of-School Sport Activities. *Strategic Studies on Youth and Sports*, 13(25), 213-230. [https://faslname.msy.gov.ir/article\\_63\\_c075144e7e36a881af04b1658449ffe2.pdf](https://faslname.msy.gov.ir/article_63_c075144e7e36a881af04b1658449ffe2.pdf)
- Longmuir, P. E., & Tremblay, M. S. (2016). Top 10 research questions related to physical literacy. *Research Quarterly for Exercise and Sport*, 87(1), 28-35. <https://doi.org/10.1080/02701367.2016.1124671>
- Mirzaei Kalar, A., Hematinezhad, M., & Ramezaninezhad, R. (2020). Designing the Model of student sport development in Iran. *Research on Educational Sport*, 8(18), 41-62. <https://doi.org/10.22089/res.2019.6508.1557>
- Mozaffari, S. A., Aliei, A., Abbasi, S., Ahadpour, H., & Rezaei, Z. (2022). Strategies for the development of the elite sports system in Iran. *Journal of Sports Management and Development*, 21(57), 123-148. [https://www.sid.ir/fa/VEWSSID/J\\_pdf/4015713911302.pdf](https://www.sid.ir/fa/VEWSSID/J_pdf/4015713911302.pdf)
- Naghypour Givi, B., & Rasaee Rad, A. (2023). Identifying Effective Factors in the Development of Elite Sports with a Research Synthesis Method: A Meta-synthesis Approach. *Sport Management Journal*, 15(2), 203-218. [https://jsm.ut.ac.ir/article\\_87158\\_e9902a1bcf3a660e6e56e8561d0a420c.pdf](https://jsm.ut.ac.ir/article_87158_e9902a1bcf3a660e6e56e8561d0a420c.pdf)
- Rasekh, N., Sajjadi, N., Hamidi, M., & Khabiri, M. (2015). The design of a strategic plan for Iran female championships. *Sport Management Journal*, 7(3), 309-334. [https://jsm.ut.ac.ir/article\\_55358\\_en.html](https://jsm.ut.ac.ir/article_55358_en.html)
- Rezaei, S. (2022). Challenges and barriers to the progress and development of sports and physical education in schools in Iran. *Journal of Physical Education and Sport Sciences*, 14(2), 283-302. <https://www.sid.ir/paper/996886/fa>
- Seyed Bagheri, S. M., & Sharifian, E. (2017). Identifying and prioritizing barriers to sponsorship of private companies of sport of champions [Research]. *Research in Sport Management and Motor Behavior*, 7(13), 55-66. <http://jrsm.khu.ac.ir/article-1-2592-en.html>
- Shabani, A., & Khaje, F. (2017). Prioritizing Factors Affecting The Development Of Sport For All And Sports Championship In Iran. *Strategic Studies on Youth and Sports*, 16(36), 57-68. [https://faslname.msy.gov.ir/article\\_204.html?lang=en](https://faslname.msy.gov.ir/article_204.html?lang=en)
- Shahvali Kohshouri, J., Askari, A., Nazari, R., & Naghsh, A. (2020). A constructive model of participation in the student sports. *Teaching and Learning Research*, 17(1), 123-141. <https://doi.org/10.22070/tlr.2021.10390.0>
- Sharbatzadeh, R., Naderinasab, M., & Alidost, E. (2022). Designing the IRAN Championship sport strategic plan for the 2024 Olympic. *Strategic Studies on Youth and Sports*, 21(57), 123-148. <https://doi.org/10.22034/ssys.2022.650>
- Shomali, S., & Keshkar, S. (2022). Designing a model of sponsorship barriers management for women's sports in Iran. *Sport Management Journal*, 14(2), 302-283. <https://doi.org/10.22059/jsm.2021.311881.2601>
- Sotiriadou, P., & De Bosscher, V. (2018). Managing high-performance sport: introduction to past, present and future considerations. In (Vol. 18, pp. 1-7): Taylor & Francis.
- Sutcliffe, J. T., Fernandez, D. K., Kelly, P. J., & Vella, S. A. (2024). The parental experience in youth sport: A systematic review and qualitative meta-study. *International Review of Sport and Exercise Psychology*, 17(1), 236-263. <https://doi.org/10.1080/1750984X.2021.1998576>
- Thompson, F., Rongen, F., Cowburn, I., & Till, K. (2022). The impacts of sports schools on holistic athlete development: a mixed methods systematic review. *Sports medicine*, 52(8), 1879-1917. <https://doi.org/10.1007/s40279-022-01664-5>
- Yousefian, J. (2022). Challenges to Develop Sport for All, Professional and Vocational, Women's and Educational Sports in Yazd Province. *Strategic Studies on Youth and Sports*, 20(54), 171-192. [https://faslname.msy.gov.ir/article\\_480.html?lang=en](https://faslname.msy.gov.ir/article_480.html?lang=en)