



<https://asml.ui.ac.ir/>

Crisis Management in Sports During Global Emergencies

Saba Dibaei Asl¹, Mahdi Bashiri², Rasoul Faraji³,
Sheyda Amini⁴

1. Department of Sport Sciences, Faculty of Education and Psychology, Azarbaijan Shahid Madani University, Tabriz, Iran
SABA.DIBAYI73@gmail.com
2. Department of Sport Sciences, Faculty of Education and Psychology, Azarbaijan Shahid Madani University, Tabriz, Iran
bashiri@azaruniv.ac.ir (Corresponding Author)
3. Department of Sport Sciences, Faculty of Education and Psychology, Azarbaijan Shahid Madani University, Tabriz, Iran
faraji@azaruniv.ac.ir
4. Piranshahr Education Department, General Directorate of Education of West Azerbaijan Province, Piranshahr, Iran
aminisheyda1365@gmail.com

Article Info	Abstract
Article type: Research Article	This study aimed to develop a grounded theory model explaining crisis management processes within Iranian sports organizations during the COVID-19 pandemic. Using Strauss & Corbin's (1990) grounded theory approach, qualitative data were collected through semi-structured interviews with 15 senior sports managers and sport management academics directly involved in decision-making during the pandemic. Data were analyzed through open, axial, and selective coding using manual coding supported by Microsoft Word. The analysis yielded a six-dimensional paradigmatic model. The model identifies six interconnected dimensions rather than a single cause. Managerial weaknesses and health-psychological vulnerabilities constituted the causal conditions. These operated within economic and infrastructural constraints and were shaped by legal and cultural-political intervening factors. Crisis response strategies were categorized as cultural, structural, and health-psychological. These strategies contributed to improved organizational resilience, health protection, and adaptive capacity. This study is limited by its focus on managerial perspectives and the specific Iranian context, which may restrict transferability. Nevertheless, the findings provide a context-sensitive framework to support future crisis preparedness and policy development in sport organizations.
Received: 31 October 2025	
Revised: 06 July 2026	
Accepted: 06 July 2026	
Keywords:	Crisis Management, Mental Health, Pandemic, Physical Health, Sport
Cite this article:	Dibaei Asl, S., Bashiri, M., Faraji, R., & Amini, S. (2026). Crisis management in sports during global emergencies. <i>Archives in Sport Management and Leadership</i> , 4(2), 55-64. doi: 10.22108/asml.2026.147276.1119



Introduction

Management faces dynamic challenges in contemporary organizations, where success depends on multiple factors, among which crisis management is paramount (Zheng et al., 2020). Crisis refers to unexpected events disrupting organizational equilibrium, requiring urgent problem-solving (Karimi Jafari et al., 2024; Manoli & Anagnostou, 2023). Crisis management involves strategies an organization adopts to minimize damage to itself and stakeholders (Alizadeh et al., 2023). Standard decision-making in crises typically involves goal setting, problem definition, solution search, consequence evaluation, and solution implementation. However, traditional crisis models often assume these steps follow a rigid, linear progression, which fails to capture the unpredictable nature of global emergencies, highlighting a critical gap in existing managerial theories.

One crisis affecting all individuals globally was the coronavirus outbreak, and as of March 12, 2020, COVID-19 was confirmed worldwide (Zheng et al., 2020). Unlike SARS, MERS, and influenza, this virus spread rapidly with higher transmission rates (Jangi, 2023). Trachsler and Jong (2020) described the situation as critical for managers across all sectors in the Netherlands. Although the initial focus on COVID-19 centered on medical issues and drug development (Ornell et al., 2020), the pandemic also created political, social, economic, and psychological problems, disrupting quality of life (Nikogoftar & Dosti, 2021). Consequently, experts across psychology, economics, and politics began examining consequences for sports and physical activity (Goodarzi & Mousavi, 2021).

To address the scattering of literature, previous studies can be categorized into systemic-managerial impacts and socio-economic consequences. Regarding systemic-managerial impacts, COVID-19 significantly impacted the global sports industry through temporary suspension of leagues and competitions, matches without spectators, cancellation of national and international events, closure of sports facilities, and stagnation of the sports equipment market (Heydari et al., 2020). Major sporting events worldwide were suspended (Peña et al., 2021), including the Tokyo 2020 Olympics postponed for one year (Mehra et al., 2024).

Regarding socio-economic consequences, the sports industry faced scheduling delays, spectator-free events, reduced economic value, and major financial problems (Manoli & Anagnostou, 2023; Rowe et al., 2022). Most global sports leagues lost billions of dollars (Clarkson et al., 2022; Yanguas et al., 2020). Keshkar et al. (2021) noted that club closures, league suspensions, and competition halts were first observable signs of the coronavirus outbreak, which severely affected sports club and federation income, leading to unemployment and bankruptcy. Furthermore, sports including golf, tennis, athletics, basketball, rugby, cycling, boxing, snooker, and ice hockey were all canceled, creating significant financial burdens (Nicola et al., 2020).

These consequences were also observed in the Iranian sports context. Dinani et al. (2024) pointed to COVID-19 effects on Iranian athletes' mental health. Alam & Abdurraheem (2023) showed income shortages, job loss, unemployment, decreased living standards, fitness, public welfare, and increased living costs. Nodehi & Ahmadi (2022) referred to sports' complex closures and staff unemployment. Benar et al. (2025) used grounded theory to identify COVID-19's impact channels on Guilan's sports economy. Findings showed that forced closures of sports facilities and events caused severe revenue losses and employment threats, while reduced household incomes and economic uncertainty decreased demand for sports goods and services. The pandemic led to an unprecedented recession, with six major disruption categories identified: supply, demand, labor market, private sector, public/semi-public sector, and investment. Additionally, Goodarzi & Mousavi (2021) stated that Iranian private and public sports clubs incurred financial and economic losses, which proves that despite historical lessons from SARS, MERS, and H1N1, organizations lacked specific protocols and financial or mental health preparedness plans.

Despite growing literature on COVID-19 impacts on sport, several critical gaps remain. First, most studies have focused on outcomes (financial losses, psychological distress) rather than the process of crisis management within sport organizations. Second, while some localized frameworks have explored crisis dynamics in Iran—such as the grounded theory models developed by Golmohammadi et al. (2023) for sports events, Alavi et al. (2022) for sports facilities utilizing Decision Support Systems (DSS), and Khoshdel Ahmadi et al. (2022) for utilizing modern technologies during the COVID-19 crisis—these frameworks primarily emphasize technical-structural logistics, operational infrastructures, or technological capacities. Consequently, they do not fully capture the multi-dimensional, non-linear dynamics of prolonged emergencies where deep-rooted managerial weaknesses, legal-political intervening factors, and health-psychological vulnerabilities simultaneously disrupt organization-wide processes.

Third, few studies adopt an inductive, theory-building approach grounded in the lived experiences of decision-makers. Accordingly, this study builds upon the existing local literature by addressing these technical and operational limitations. By developing a context-embedded grounded theory model, this research specifically explains how holistic, process-oriented crisis management in sport unfolds under global emergency conditions.

Research Methods

This qualitative research applied grounded theory using Strauss & Corbin's (1990) approach. Data were collected field-based using semi-structured interviews.

Participants: Participants included senior sports managers from the Ministry of Sports and Youth, General Departments of Sports and Youth across provinces, university professors researching crisis management in sports, and crisis management managers. Purposive criterion-based sampling was employed. The inclusion criteria were uniformly applied to all categories of participants without exception, requiring: (a) direct involvement in decision-making during the COVID-19 pandemic, (b) a minimum of 5 years of experience in sports management or crisis management, and (c) willingness to participate. No participants were excluded after meeting these criteria.

Data Collection: Interviews continued until theoretical saturation, achieved at the 13th interview. Two additional interviews were conducted for assurance (total N=15). Interviews were conducted over a six-month period from October 2021 to March 2022. Face-to-face interviews occurred in quiet, calm environments. Specifically, 5 interviews were conducted face-to-face, whereas 10 interviews were conducted remotely via WhatsApp video/audio calls and direct phone interviews due to strict pandemic quarantine restrictions, health protocols, and inter-provincial geographical distances. Note-taking and voice recording were used. Average interview duration was 35 minutes.

Ethical Considerations: The consent form explained the purpose of the study, the voluntary nature of participation, the right to withdraw at any time without penalty, and how the data would be used. Participants were assured of confidentiality and anonymity; all identifiers were removed and replaced with codes (P1-P15). Audio files were stored on a password-protected computer accessible only to the research team and were deleted immediately after transcription. No incentives were offered for participation.

Data Analysis: Data analysis and coding occurred simultaneously with data collection. In open coding, initial codes were categorized based on common themes to form concepts. Concepts were then compared and categorized to determine categories. In axial coding, the paradigmatic model specified causal conditions, core phenomenon, contextual factors, intervening variables, strategies, and consequences. In selective coding, categories were interconnected to present a theoretical framework. Data were analyzed manually following Strauss and Corbin's (1990) constant comparative method. Microsoft Word organized transcripts, codes, and memos. Manual coding was selected to allow deeper theoretical sensitivity and close engagement with data.

Trustworthiness: Guba and Lincoln's (1985) criteria were applied. Table 1 shows all four criteria.

Table 1- Trustworthiness Criteria in Qualitative Research

Method Used	Criterion
Independent co-coding by two analysts, inter-coder agreement alignment	Credibility
Participant engagement until saturation, data triangulation, member checking	Dependability
External expert evaluation, process description	Transferability
Detailed description of environment, participants, diverse perspectives	Confirmability

Findings

Participants included 15 individuals from university faculty, Ministry of Sports and Youth, and Student Affairs Organization. Six participants were active in both executive and academic fields. Table 2 shows participant characteristics.

Table 2- Demographic Characteristics of Research Participants

Code	Position	Age	Gender	Experience	Education	Field
P1	University Faculty	55	M	22 years	Ph.D.	Executive, Academic
P2	University Faculty	49	M	21 years	Ph.D.	Executive, Academic
P3	Student Affairs Org	38	M	13 years	Ph.D.	Executive
P4	Student Affairs Org	45	F	17 years	Master's	Executive
P5	Deputy of Physical Education	49	M	24 years	Ph.D.	Executive
P6	General Dept. Sports	51	M	23 years	Master's	Executive
P7	Ministry of Sports	47	M	19 years	Ph.D.	Executive, Academic
P8	Headquarters Manager	46	M	16 years	Ph.D.	Executive
P9	Executive Deputy Minister	51	M	24 years	Ph.D.	Executive
P10	University Faculty	45	F	16 years	Ph.D.	Executive, Academic
P11	University Faculty	39	M	17 years	Ph.D.	Executive, Academic
P12	Private Club Manager	46	M	14 years	Master's	Executive
P13	Sports Complex Manager	52	M	17 years	Master's	Executive
P14	Headquarters Manager	36	M	7 years	Ph.D.	Executive, Academic
P15	Head Coach	54	M	20 years	Ph.D. Student	Executive

Open Coding: Initially, 353 primary codes were extracted. After removing duplicates and overlapping codes, 164 primary codes entered axial coding.

Table 3- Code Count per Category

Category	Number of Initial Codes
Managerial Weaknesses	42
Health-Psychological Weaknesses	28
Economic Weaknesses	19
Infrastructural Problems	21
Legal Problems	15
Cultural-Political Issues	24
Cultural Strategies	8
Structural Strategies	7
Health-Psychological Strategies	6
Economic Prosperity	5
Health Development	4
Sports Development	5

Sample Quotes with Codes:

Managerial Weaknesses (P7): "During the pandemic, our clubs faced a 70% decline in financial balance. We had no reserves for such an emergency." (Code: Significant decline in clubs' financial balance)

Health-Psychological Weaknesses (P10): "Athletes called us daily reporting anxiety, insomnia, and intrusive thoughts. They didn't know when competitions would resume." (Code: Emergence of psychological disorders)

Economic Weaknesses (P12): "My sports business capital dropped by 80% in three months. I had to lay off 15 employees." (Code: Decline in capital of sports businesses)

Infrastructural Problems (P11): "The internet infrastructure couldn't support virtual training. Many athletes in rural areas had no access at all." (Code: Weakness in digital infrastructure)

Legal Problems (P9): "Insurance didn't cover pandemic-related injuries or cancellations. Athletes were left with no financial protection." (Code: Lack of civil liability insurance)

Table 4- Axial Coding: Code → Subcategory → Quote Example

Initial Code Example	Subcategory	Category	Quote (Participant)
"Clubs couldn't pay salaries for 4 months"	Lack of Financial Resource Provision	Managerial Weaknesses	P1: "We had no financial reserves. The government support arrived after 6 months."
"Athletes feared losing fitness permanently"	Psychological Weakness	Health-Psychological Weaknesses	P2: "They thought their careers were over. Depression rates skyrocketed."
"No innovative business models emerged"	Entrepreneurship Problems	Economic Weaknesses	P8: "Everyone waited for handouts instead of creating new solutions."
"Virtual platforms crashed during online coaching"	Weak Internet Infrastructure	Infrastructural Problems	P11: "Bandwidth was insufficient. Students in provinces had no connection."
"Sanctions delayed vaccine imports for 3 months"	External Political Issues	Cultural-Political Issues	P14: "Politics interfered with athlete health. This is unacceptable."

Axial Coding: Table 5 presents the axial coding structure.

Table 5- Axial Coding

Initial Codes (Examples)	Subcategory	Category
Decline in clubs' financial balance, inability to pay salaries	Lack of Financial Resource Provision	Managerial Weaknesses
Poor equipment quality, unsafe venues	Inappropriate Venues & Equipment	
Lack of meritocracy in management	Weakness in Human Resource Management	
No monitoring of physical health	Inappropriate Health	Health-Psychological Weaknesses
Anxiety, depression, insomnia	Psychological Weakness	
Decline in sports business capital	Inappropriate Economic Conditions	Economic Weaknesses
Lack of creativity and innovation	Entrepreneurship Problems	
Inadequate media coverage	Inappropriate Media Performance	Infrastructural Problems

Initial Codes (Examples)	Subcategory	Category
Poor digital infrastructure	Weak Internet Infrastructure	Legal Problems
Underutilized geographical potential	Underutilization of Environmental Infrastructure	
Lack of coordination among units	Weakness in Laws & Contracts	Cultural-Political Issues
No pandemic insurance coverage	Inappropriate Sports Insurance	
Improper consumption culture	Incorrect Environmental Culture	COVID-19 Crisis Management in Sports
Political interference in sports	Domestic Political Issues	
Sanctions delaying medical imports	External Political Issues	Cultural Strategies
Events with minimal cost/loss of life	Comprehensive Crisis Management	
Compliance culture promotion	Educational-Cultural Approach	Structural Strategies
Proficient sports managers	Managerial	
Private sector support	Economic	Health-Psychological Strategies
Vaccines and medicines	Health	
Mental health services	Psychological	Economic Prosperity
Reduced unwarranted costs	Economic Development	
New jobs (home sports, remote coaching)	Entrepreneurship Development	Health Development
Reduced physical injuries	Physical Health Development	
Reduced mental problems	Mental Health Development	Sports Development
Increased safety	Development of Sports Venues	
High-quality events	Improvement of Event Quality	

Selective Coding: Table 6 shows the selective coding model.

Table 6- Selective Coding

Axial Codes	Selective Codes
Lack of Financial Resource Provision, Inappropriate Venues & Equipment, Weakness in Human Resource Management	Managerial Weaknesses
Inappropriate Health, Psychological Weakness	Health-Psychological Weaknesses
Comprehensive Crisis Management	Crisis Management during Pandemics
Inappropriate Economic Conditions, Entrepreneurship Problems	Economic Weaknesses
Inappropriate Media Performance, Weak Internet Infrastructure, Underutilization of Environmental Infrastructure	Infrastructural Problems
Weakness in Laws & Contracts, Inappropriate Sports Insurance	Legal Problems
Incorrect Environmental Culture, Domestic Political Issues, External Political Issues	Cultural-Political Issues
Educational-Cultural Approach	Cultural Strategies
Managerial, Economic	Structural Strategies
Health, Psychological	Health-Psychological Strategies
Economic Development, Entrepreneurship Development	Economic Prosperity
Physical Health Development, Mental Health Development	Health Development
Development of Sports Venues, Improvement of Event Quality	Sports Development

Table 7- Alignment of Conclusions with Empirical Findings

Conclusion Claim	Corresponding Finding	Evidence
Managerial weaknesses are causal	42 codes in Managerial Weaknesses	P7 quote, Table 4
Health-psychological vulnerabilities are causal	28 codes in Health-Psychological Weaknesses	P10 quote, Table 4
Economic and infrastructural factors are contextual	19 + 21 codes	P11, P12 quotes, Table 4
Legal and cultural-political factors are intervening	15 + 24 codes	P9, P14 quotes, Table 4
Cultural, structural, and health strategies are effective	8 + 7 + 6 codes	Participant consensus, Table 4

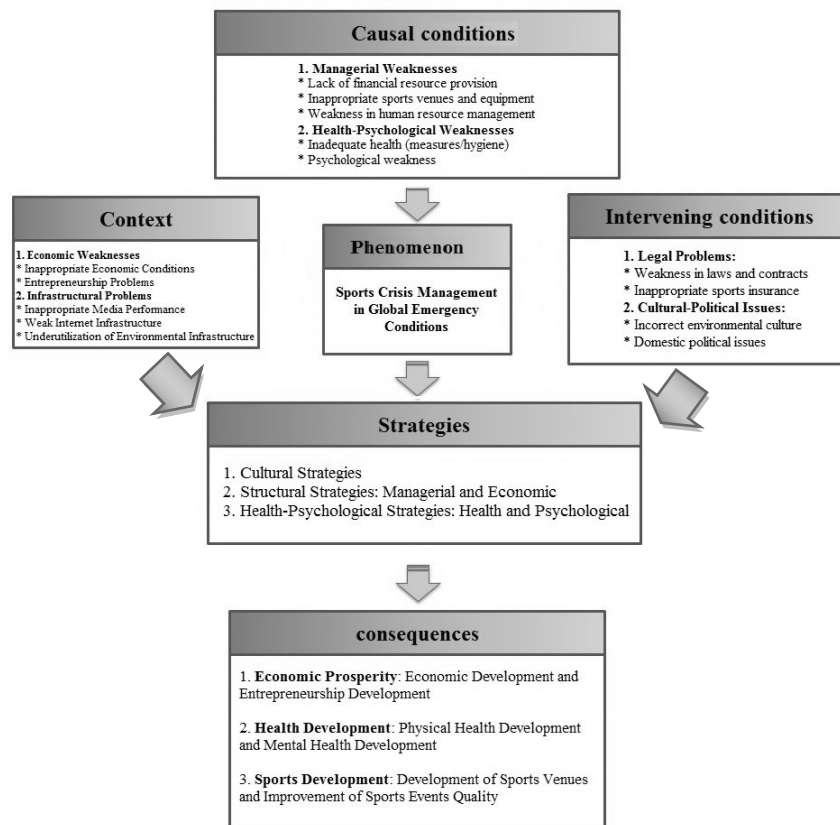


Figure 1. Final Research Model (Sports Crisis Management Model in Global Emergency Conditions)

Note: The model illustrates the core phenomenon (Sports Crisis Management in Global Emergency Conditions), which is triggered by Causal Factors (Managerial Weaknesses, Health-Psychological Weaknesses). This phenomenon, under the influence of Contextual Factors (Economic Weaknesses, Infrastructural Problems) and Intervening Factors (Legal Problems, Cultural-Political Issues), shapes the Strategies employed (Cultural, Structural, and Health-Psychological Strategies), ultimately leading to the Consequences of Economic Prosperity, Health Development, and Sports Development.

Discussion

The present study aimed to design a crisis management model in the sports sector during the outbreak of epidemic diseases. The research results indicated that:

Causal Factors. The causal factors comprised two parts: (1) managerial weaknesses (financial provision, safety standards, human resource management) and (2) health-psychological weaknesses. The first aligns with [Dinani et al. \(2024\)](#), [Alam & Abdurraheem \(2023\)](#), and [Nodehi & Ahmadi \(2022\)](#), who reported income shortages, unemployment, and human resource challenges. The second supports [Boshra et al. \(2020\)](#) and [Shahed Haghighdam et al. \(2020\)](#), who emphasized online psychology services. As P7 stated: "We had no financial reserves. Government support arrived after six months." Although [Goodarzi & Mousavi \(2021\)](#) noted that crises can create opportunities, the lack of financial access and safe equipment severely damaged Iran's sports industry. Crucially, this contradicts the structural boundaries of the crisis model by [Golmohammadi et al. \(2023\)](#), which primarily treats sports events as temporary, logistically isolated occurrences. In a prolonged epidemic pandemic, causal factors are not merely logistical failures; rather, deep-seated systemic weaknesses and multi-dimensional health-psychological vulnerabilities act as non-linear triggers that disrupt entire sport organizations long before an event even takes place. Thus, improving managerial structures and psychological status can enhance future resilience.

Contextual Factors. Economic factors (entrepreneurship conditions) and infrastructural factors (media, internet, environment) were identified. These align with [Nicola et al. \(2020\)](#), [Khoshdel Ahmadi et al. \(2022\)](#), and [Ratten \(2020\)](#), who highlighted material, social, and entrepreneurial thinking. [Soheili et al. \(2022\)](#) proposed media support, while [Barakhass et al. \(2020\)](#) emphasized technological innovation. As P11 noted: "Bandwidth was insufficient. Students in provinces had no connection." Entrepreneurial thinking can create alternative jobs during stagnation but depends on digital infrastructure. [Skinner & Smith \(2021\)](#) confirmed that digital and e-sports growth opportunities emerged, making infrastructure strengthening a prerequisite for resilience. These contextual findings expand upon the crisis framework of [Alavi et al. \(2022\)](#), which heavily

relies on Decision Support Systems (DSS) inside static sports venues. While Alavi et al. emphasize automated technological inputs for facilities, our model demonstrates that the macro-context of an epidemic requires systemic entrepreneurial adaptability and regional digital equity, which go far beyond localized facility-based software.

Intervening Factors. Legal factors (contracts, insurance) and cultural-political factors (environmental culture, domestic/foreign politics) served as intervening variables. These align with Yoosefi Lebni et al. (2021) and Khoshdel Ahmadi et al. (2022). As P14 stated: "Politics interfered with athlete health. Sanctions delayed vaccine imports for three months." Vague regulations, lack of NGO authority, unclear financial systems, and insufficient insurance coverage complicate crisis management. Poor energy consumption culture, political interference, and unjust sanctions create additional obstacles. Moderating these problems would improve managerial performance.

Core Phenomenon. Sports Crisis Management in Global Emergency Conditions means holding events with minimal financial cost and loss of life while adhering to sports-ethical principles and minimizing suspensions. When these conditions are met, the crisis is well-managed.

Strategies. Cultural, structural (managerial, economic), and health-psychological strategies were identified. Barrett & Shipway (2024) demonstrated management strategies for small organizations. Hammerschmidt et al. (2021) addressed economic problems and entrepreneurship. Soheili et al. (2020) confirmed systemic approach, e-government, and media support. Cultural reform, structural reforms (meritocracy, private sector support), and health strategies (vaccines, mental health services) together can manage epidemic crises effectively. By integrating socio-cultural and psychological dimensions, these multi-layered strategies offer a more integrated approach than the technology-centric crisis model proposed by Khoshdel Ahmadi et al. (2022). While Khoshdel Ahmadi et al. (2022) focus strictly on utilizing modern technologies and digital platforms during the COVID-19 crisis, our findings show that technology is merely an execution tool; true resilience requires an integrated framework that addresses legal, psychological, and institutional reforms simultaneously.

Outcomes. Economic prosperity, health development, and sports development emerged. Sonkeng et al. (2024) showed that access to sports maintains public health. Ratten et al. (2021) noted sport entrepreneurship during crises. Escamilla-Fajardo et al. (2020) found that entrepreneurial attitudes yield positive results. Khoshdel Ahmadi et al. (2022) highlighted technology capacities as positive consequences. As P1 explained: "Home sports created new jobs. People thought more about their health." Proper crisis management prevents unwarranted costs and recovers financial losses.

Model Limitations and Generalizability. This model was developed specifically within Iranian sports organizations during COVID-19. The state-influenced, resource-constrained Iranian context differs significantly from Western professional sport systems. Therefore, transferability to other national contexts or commercial sport leagues requires empirical validation. Additionally, the model focuses on epidemic diseases; applicability to other crises (natural disasters, financial crises, security threats) remains untested. Future research should examine model fit across diverse settings and crisis types.

Conclusion

This study developed a grounded theory model of crisis management in sports during epidemic diseases. The six-dimensional paradigmatic model demonstrates that effective crisis management requires addressing causal conditions (managerial and health-psychological weaknesses), contextual factors (economic and infrastructural constraints), and intervening factors (legal and cultural-political issues). Strategies across cultural, structural, and health-psychological domains lead to outcomes including economic prosperity, health development, and sports development.

Three Specific Recommendations for Policymakers:

1. **Establish a National Crisis Task Force for Sports** with representation from Ministry of Sports, private sector, and athlete associations. This task force should develop pandemic-specific protocols for league suspensions, financial support mechanisms, and mental health services within 90 days of emergency declaration.
2. **Mandate Pandemic Insurance Coverage** for all licensed athletes and sports organizations. Insurance must include cancellation protection, injury coverage during resumed competitions, and mental health support. This requires legislative action within six months.
3. **Invest in Digital Infrastructure for Remote Sports Delivery** including virtual coaching platforms, bandwidth expansion to rural areas, and e-sports development programs. A minimum allocation of 5% of annual sports budget should be designated for digital transformation.

Call to Action for Policymakers: The next global health emergency is not a matter of if but when. Sports

organizations cannot afford reactive, ad-hoc responses. We urge sports governing bodies to implement the recommended task force, insurance mandate, and digital investments before the next crisis emerges. The cost of inaction—financial collapse, athlete mental health crises, and loss of community engagement—far exceeds the investment required for preparedness.

Research Limitations and Suggestions for Future Research

Limitations of the Grounded Theory Method: The subjectivity of coding remains inherent in grounded theory approaches. Although independent coder checks were employed, the researchers' theoretical sensitivity shaped category development. Different researchers might have produced alternative categorizations.

Sampling Bias: Participants were exclusively managers and academics. Athletes, coaches, referees, and support staff—groups that suffered greatly from COVID-19—were not included. Their perspectives might differ significantly from managerial viewpoints. As one participant noted (P15), "You should ask athletes, not just us." This sampling bias may have influenced reported themes toward managerial concerns (financial, structural) rather than athlete-centered issues (training disruption, competition anxiety).

Generalizability Constraints: The Iranian context—characterized by state-controlled sport organizations, economic sanctions, and centralized decision-making—limits transferability to market-driven sport systems. Findings are best considered context-sensitive rather than universally applicable.

Future Research Directions:

1. Conduct multi-stakeholder studies including athletes, coaches, referees, and support staff to capture diverse perspectives.
2. Test the model in post-pandemic conditions and compare results with the present study.
3. Validate the model in other national contexts (e.g., European, North American, Asian sport systems).
4. Examine model applicability to non-epidemic crises (natural disasters, financial crises, security threats).
5. Develop quantitative instruments based on the grounded theory model for large-scale hypothesis testing.

Acknowledgments

The authors would like to thank all those who participated and collaborated in this research.

Conflicts of Interest

The authors declared no potential conflicts of interest with respect to the research, authorship, and publication of this article.

Funding

The authors received no financial support for the research, authorship, and publication of this article.

Statement on the Use of AI

During the development of this manuscript, the authors utilized ChatGPT (OpenAI) to enhance the linguistic quality and fluency of the text. Additionally, artificial intelligence was employed to assist with APA reference formatting. Following the use of these tools, the authors thoroughly reviewed and refined the content as needed, and accept complete responsibility for all aspects of the published work.

References

- Alam, M.M., & Abdurraheem, I.I. (2023). COVID-19 and the financial crisis in the sports sector around the world. *Sport in Society*, 26(1), 154–167. <https://doi.org/10.1080/17430437.2021.1979964>
- Alizadeh, F., Razavi, S.M.H., Amirnejad, S., & Dusti Pashakolae, M. (2023). Designing a model of factors affecting crisis management in the country's sports industry. *Crisis Management*, 12(Special Issue on Economic Defense), 65–83. http://www.joem.ir/article_711067.html [In Persian].
- Alavi, S. F., Kargar, G., Shabani Bahar, G. and Keshkar, S. (2023). Develop a crisis management model in sport facilities based on a decision support system. *Sport Management Studies*, 15(80), 211-236. <https://doi.org/10.22089/smrj.2022.12444.3616> [In Persian].
- Barakhas, H., Boroumand, M. R., Dastoom, S., & Bozorgpour, B. (2020). Business management in times of crisis: Factors, challenges, and strategies (A study of the sports industry under the recession caused by the coronavirus). *Sport Management Studies*, 13(66), 297-326. <https://doi.org/10.22089/smrj.2020.8874.3024> [In Persian].

- Barrett, Z., & Shipway, R. (2024). Crisis management response strategies of small-scale sport event organizations to the effects of the COVID-19 pandemic. *Event Management*, 28(3), 441–459. <https://doi.org/10.3727/152599524X17046754077370>
- Benar, N., Saeedi, F., & Salahshori, M. (2025). Identifying the Channels of Impact of the Spread of Corona Disease (COVID-19) on the Sport Economy in Guilan Province. *Journal of Sport Management and Development*, 14(2), 129–150. <https://doi.org/10.22124/JSMMD.2023.21937.2733> [In Persian].
- Boshra, A. A., Al-Dabbagh, Z. S., Al Eid, N. A., Al Eid, M. A., Al-Musaibeh, S. S., Al-Miqtiq, M. N., Alamri, A. S., & Al-Zeyad, G. M. (2020). The effects of corona virus (COVID-19) outbreak on the individuals' mental health and on the decision makers: A comparative epidemiological study. *International Journal of Medical Research & Health Sciences*, 9(3), 26–47. <https://B2n.ir/rx8061>
- Clarkson, B. G., Culvin, A., Pope, S., & Parry, K.D. (2022). Covid-19: Reflections on threat and uncertainty for the future of elite women's football in England. *Managing Sport and Leisure*, 27(1-2), 50–61. <https://doi.org/10.1080/23750472.2020.1766377>
- Corbin, J. M., & Strauss, A. (1990). Grounded theory research: Procedures, canons, and evaluative criteria. *Qualitative Sociology*, 13(1), 3–21. <https://doi.org/10.1007/BF00988593>
- Dinani, M. M., Afshar Jahanshahi, A., Madavani, A. N., Mendoza, M. I. R., & Soltani, S. (2024). Mental Resilience in Crisis: Examining the Mental Health and Well-Being of Iranian Athletes During the COVID-19 Pandemic. *Journal of Public Affairs*, 24(4), e2950. <https://doi.org/10.1002/pa.2950>
- Escamilla-Fajardo, P., Núñez-Pomar, J. M., Calabuig-Moreno, F., & Gómez-Tafalla, A. M. (2020). Effects of the COVID-19 pandemic on sports entrepreneurship. *Sustainability*, 12(20), 8493. <https://doi.org/10.3390/su12208493>
- Goodarzi, M., & Mousavi, S. A. (2021). Challenges and opportunities of COVID-19 facing the sports management of Iran. *Applied Research in Sports Management*, 9(4), 11–22. <https://doi.org/10.30473/arsm.2021.7622> [In Persian].
- Golmohammadi, N., Askari, A.R., & Khorvash, M. (2023). The crisis management model in holding sporting events. *Strategic Studies on Youth and Sports*, 22(61), 477–496. <https://doi.org/10.22034/ssys.2022.1726.2218> [In Persian].
- Guba, E. G., & Lincoln, Y. S. (1985). Competing paradigms in qualitative research. *Handbook of qualitative research*, 2(163-194), 105. <https://B2n.ir/sy5423>
- Hammerschmidt, J., Durst, S., Kraus, S., & Puumalainen, K. (2021). Professional football clubs and empirical evidence from the COVID-19 crisis: Time for sport entrepreneurship? *Technological Forecasting and Social Change*, 165, 120572. <https://doi.org/10.1016/j.techfore.2021.120572>
- Heydari, R., Asadollahi, E., & Alizadeh Yusefabadi, O. (2020). Identifying the effects of the coronavirus outbreak on the sports industry. *Sport Management Journal*, 12(4), 1203–1232. <https://doi.org/10.22059/jsm.2021.307792.2547> [In Persian].
- Jangi, S.R.H. (2023). A brief overview on COVID-19 and its comparison with SARS, MERS, and H1N1. *Qeios*. [Preprint] <https://doi.org/10.32388/SP6YSU>
- Karimi Jafari, F., Bayramzadeh, S., & Dabiri, A. (2024). Identifying crisis management strategies of small businesses active in Iran's food industry during the COVID-19 pandemic with a mixed approach. *Prevention and Crisis Management Knowledge*, 14(3), 310–335. <https://doi.org/10.32598/DMKP.14.3.835.1> [In Persian].
- Keshkar, S., Dickson, G., Ahonen, A., Swart, K., Addesa, F., Epstein, A., Dodds, M., Schwarz, E. C., Spittle, S., & Wright, R. (2021). The effects of Coronavirus pandemic on the sports industry: An update. *Annals of Applied Sport Science*, 9(1). <https://doi.org/10.29252/aassjournal.964>
- Khoshdel Ahmadi, M., Ghorbani, S., & Nodehi, M. A. (2022). Designing a model for crisis management of the coronavirus pandemic in the sports industry using the capacity of new technologies. *Communication Management in Sports Media*, 10(2), 48–61. <https://doi.org/10.30473/jsm.2021.59064.1536> [In Persian].
- Manoli, A. E., & Anagnostou, M. (2023). Operational crisis communication management: A content analysis of FIFA's communication during Covid-19. *Sport Management Review*, 26(2), 293–314. <https://doi.org/10.1080/14413523.2022.2059992>
- Mehra, V., Singh, P., Bharany, S., & Sawhney, R. S. (2024). Sports, crisis, and social media: a Twitter-based exploration of the Tokyo Olympics in the COVID-19 era. *Social Network Analysis and Mining*, 14(1), 56. <https://doi.org/10.1007/s13278-024-01218-9>
- Nicola, M., Alsafi, Z., Sohrabi, C., Kerwan, A., Al-Jabir, A., Losifidis, C., Agha, M., & Agha, R. (2020). The socio-economic implications of the coronavirus and covid-19 pandemic: A review. *International Journal of Surgery*, 78, 185–193. <https://doi.org/10.1016/j.ijsu.2020.04.018>
- Nikogoftar, M., & Dosti, M. (2021). The role of anxiety of contracting COVID-19 disease on mental health and quality of life with the mediation of hope. *Positive Psychology Research*, 7(4), 25–40. <https://doi.org/10.22108/ppls.2022.127654.2080> [In Persian].
- Nodehi, M. A., & Ahmadi, M. (2022). Investigating the consequences of the coronavirus outbreak on sports businesses in Golestan province. *Strategic Studies of Sports and Youth*, 21(58), 331–346. <https://doi.org/10.22034/ssys.2022.1877.2331> [In Persian].
- Ornell, F., Schuch, J. B., Sordi, A. O., & Kessler, F. H. P. (2020). "Pandemic fear" and COVID-19: mental health burden and strategies. *Brazilian Journal of Psychiatry*, 42, 232–235. <https://doi.org/10.1590/1516-4446-2020-0008>
- Peña, J., Altarriba-Bartés, A., Vicens-Bordas, J., Gil-Puga, B., Piniés-Penadés, G., Alba-Jiménez, C., Merino-Tantiñà, J., Baena-Riera, A., Loscos-Fàbregas, E., & Casals, M. (2021). Sports in time of COVID-19: Impact of the lockdown on team activity. *Apunts Sports Medicine*, 56(209), 100340. <https://doi.org/10.1016/j.apunsm.2020.100340>

- Ratten, V. (2020). Coronavirus disease (COVID-19) and sport entrepreneurship. *International Journal of Entrepreneurial Behavior & Research*, 26(6), 1379–1388. <https://doi.org/10.1108/IJEBr-06-2020-0387>
- Ratten, V., da Silva Braga, V. L., & da Encarnação Marques, C. S. (2021). Sport entrepreneurship and value co-creation in times of crisis: The covid-19 pandemic. *Journal of Business Research*, 133, 265–274. <https://doi.org/10.1016/j.jbusres.2021.05.001>
- Rowe, D. C., Winkelmann, Z. K., Arent, S. M., Arent, M. A., Chandler, A. J., Uriegas, N. A., & Torres-McGehee, T. M. (2022). A qualitative report of the perceptions of the COVID-19 pandemic from collegiate student-athletes. *AIMS Public Health*, 9(2), 357–377. <https://doi.org/10.3934/publichealth.2022025>
- Shahed Haghighdam, H., Fathi Ashtiani, A., Rahnejat, A. M., Ahmadi Tohorsoltani, M., Taghva, A., & Ebrahimi, M. R. (2020). Psychological consequences and interventions in the COVID-19 pandemic: A review study. *Marine Medicine Journal*, 2(1), 1–11. <https://sid.ir/paper/382520/en> [In Persian].
- Skinner, J., & Smith, A. C. (2021). Introduction: sport and COVID-19 :impacts and challenges for the future (Volume 1). *European Sport Management Quarterly*, 21(3), 323–332. <https://doi.org/10.1080/16184742.2021.1925725>
- Soheili, B., Babaei, M., & Khodayari, A. (2020). Participatory governance of coronavirus crisis management in small and medium sports businesses. *Organizational Behavior Management in Sport Studies*, 7(4), 11–27. <https://doi.org/10.30473/fmss.2021.56705.2238> [In Persian].
- Sonkeng, K., Hallmon, A. W., Chepyator-Thomson, J. R., & Anaza, E. (2024). Sport in Times of Crisis: Impacts of the COVID-19 Pandemic on the Sport and Physical Exercise Habits of College Students at SEC Member Institutions. *Recreational Sports Journal*, 48(2), 146–162. <https://doi.org/10.1177/15588661241272445>
- Trachsler, T., & Jong, W. (2020). Crisis management in times of COVID-19: Game, set or match? *Journal of Contingencies and Crisis Management*, 28(4), 485–486. <https://doi.org/10.1111/1468-5973.12306>
- Yanguas, X., Dominguez, D., Ferrer, E., Florit, D., Mourtabib, Y., & Rodas, G. (2020). Returning to Sport during the Covid-19 pandemic: The sports physicians' role. *Apunts Sports Medicine*, 55(206), 49. <https://doi.org/10.1016/j.apunsm.2020.06.001>
- Yoosefi Lebni, J., Abbas, J., Moradi, F., Salahshoor, M. R., Chaboksavar, F., Irandoost, S. F., Nezhaddadgar, N., & Ziapour, A. (2021). How the COVID-19 pandemic effected economic, social, political, and cultural factors: A lesson from Iran. *International Journal of Social Psychiatry*, 67(3), 298–300. <https://doi.org/10.1177/0020764020939984>
- Zheng, Y., Ma, Y. T., Zhang, J. Y., & Xie, X. (2020). COVID-19 and the cardiovascular system. *Nature Reviews Cardiology*, 17, 259–260. <https://doi.org/10.1038/s41569-020-0360-5>