

ORIGINAL ARTICLE



Sports Events in the Pandemic: The Case of N Kolyay Istanbul Half Marathon

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ABSTRACT

Background. Sports events are considered activities carried out in a specific schedule to handle all kinds of sports competitions and activities, such as seminars, meetings, courses, panels, and camps, organized for sports purposes. **Methods.** In this study, we aimed to discuss sports events during the pandemic. In this context, the present study targeted the 16th NKolyay Istanbul Half Marathon on April 4, 2021, and recruited the randomly selected 125 female (23.1%) and 417 male (76.9%) marathon runners in this event. We gathered the data using a demographic information format and a 14-item scale. **Results.** We sought answers to four hypotheses by employing a descriptive survey model. Initially, we carried out a pilot study with a sample of 30 people to explore the validity of the scale and replicated the validity study for the primary sample. We performed exploratory factor analysis with the varimax rotation method for the validity study and attempted to confirm the resultant factorial structure using confirmatory factor analysis. We utilized a T-test and one-way analysis of variance to investigate whether the subscales of the survey differed significantly by the participants' demographics. We ran statistical analyses on SPSS 20.0 at the 95% confidence interval. **Conclusion.** The findings confirmed our first two hypotheses. We were able to confirm the third hypothesis partially. Accordingly, the participants significantly differed in the race destination subscale by only income. Finally, our results rejected the fourth hypothesis. Overall, we may assert that COVID-19 is a prime concern for half marathon runners.

KEYWORDS: *Sports Event, Pandemic, Marathon Runner*

INTRODUCTION

Today, sports tourism is the most popular and important concept in the field of tourism. The idea is expressed in two different ways. Sports tourism takes place when people travel to a different country from all over the world and participate in a sports organization as an experiencer or spectator (1). Countries hosting sports organizations provide opportunities for sports development throughout the country and products in the country's economy and social awareness. In addition, hosting events is being studied strategically as an approach (2). Sports tourism

can be defined as sports-based travel from inhabited places for a limited period, where the sport is characterized by unique rules and competition regarding physical abilities (3). The scope of sports tourism can be realized with sports events where people actively participate by traveling or participating in mega sports events as spectators.

Thus, the scale of sporting events ranges from mega-events that attract millions of visitors to small-scale local events where athletes can outnumber spectators. Mega sporting events are a

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means by which they create a positive image of a place and direct visitors' attention to the host destination. This tool has many advantages for tourism as they contribute to destination marketing. Mega sporting events can generate interest in other non-sports attractions of a destination. The most frequently cited benefits of hosting large-scale international sporting events are positive economic impacts through tourism (4). The locations where sports events take place are where sports tourism is produced and consumed (5). Sports events benefit from local resources and form part of the complex dynamics of community life in the development of sports tourism (6). For this reason, sports tourism has several advantages for the local people who can benefit from the results and bear the costs (7).

Recreational running activities have become popular globally, and there is increasing interest and participation in the marathon, which is among the most popular of these activities (8). The number of runners in road races reaches more than one hundred thousand participants in more than one thousand races worldwide. The number of runners who completed the Marathon in the world in 2016 increased from 138,267 in 2011 to 276,535 in 2016 (9). In recent years both the marathon and road race events in Turkey have become quite popular. According to data, the Istanbul Marathon was one of Turkey's most significant road running events in 2008, while sports participation in 7630 increased to 37,000 in 2019 (8). Marathon running includes running events that exceed the classic Olympic marathon distance of 42,195 km.

Marathons have created their tourism at the point of tourism due to their unique potential over time. Many athletes and their families travel to participate with their relatives every year. The sports tourism event is promoted at the international level with the feedback of the participants and foreign tourists. It causes investors, sponsorship companies, especially sports product brands to allocate capital and make investments (10).

After the pandemic outbreak, mass participants' sports events were canceled or postponed among the measures taken to reduce and control the spread of the virus. Mainly mass participants sports events present unique challenges for public health authorities and governments. Undoubtedly, this ranked among the sectors most severely affected by the

lockdowns, travel restrictions, and closed borders as tourism and sports tourism are important economic sectors (11).

Tokyo Marathon, New York Marathon, Boston Marathon, Chicago, and Berlin Marathon were canceled due to the COVID-19 pandemic. At the same time, the London Marathon was held with only elite athletes among the major marathons. At the same time, the Istanbul Marathon and Istanbul Half Marathon events, which were organized in the Elite Label category of World Athletic, were held with a limited number of athletes and the pandemic measures. From 1921 participants finished the marathon in 2020 in the Istanbul Marathon, 3377 participants finished the half marathon and 10km in 2021 in the Istanbul Half Marathon.

While carrying out Istanbul Half Marathon, the organizer took many precautions. The organizer limited the number of participants. Start/finish moved to a 142,000 sq center, which is within easy access from all directions and by public transport. That area was secured, and no one could enter without presenting a personal code via an application implemented by the Ministry of Health of Turkey. The application, called "HES," the abbreviation for the Turkish saying "life fits into home," indicates people who have tested positive or had contact with a positive patient. Starting and finishing in the same area enabled the participants to collect their belongings from they left before the race without anyone else touching them. All participants, including elite athletes, had to wear face masks at the start, and they were able to dispose of the covers in designated boxes at 50m and 200m from the start. Mass participants were divided into groups of 500. They followed the beginning of the elite athletes in order of 4 runners every 5 seconds, with 1.5 distances to each other and a few minutes between the groups—organizer located sanitizers at the start/finish and along the route. Runners were asked - but not forced - to carry their water bottles from the start, but the organizer kept water stations every five 5km, eliminating the drinking/sponging stations in between them. Finally, all elite athletes were mandated to be tested before taking their flights, and the organizer was re-tested upon arrival to Istanbul. Contrary, today it remains obscure as there are a few mass sports event to encourage athletes to participate in these events safely, to

take pandemic measures and other operational measures taken according to the new order. The study aims to provide a resource for event organizers to manage the events both during the pandemic period and post-pandemic with new normal rules.

Road Races are an important mass sports event and is one of the most popular sports worldwide, which has observed a significant increase in both the number of roads running organizations and the number of participations in these road running events in recent years (12). Therefore, it is worth taking a closer look at the effects of the COVID-19 pandemic on this sports industry. Hence, the main purpose of this study is to investigate the impact of the COVID-19 pandemic on road running.

MATERIALS AND METHODS

Population and Sample. The research universe consisted 2.155 females, 5.396 males and total 7551 runners of marathon athletes participating in the 16th NKolay Istanbul Half Marathon on April 4, 2021. Accordingly, the sample was composed of a total of randomly selected 542 runners, 125 females (23.1%) and 417 males (76.9%), competing in this half marathon event.

Data Collection Tools. In this study, we initially informed the participants about the purpose of the and study and measurements tools. Then, we asked the participants to fill out an online-delivered questionnaire booklet covering a demographic information form and a 2-factor (race destination and race conditions) 14-item scale developed by (11). The first five items on the scale are marked as "Yes" or "No," while the remaining items are rated on a 5-point Likert-type scale.

Research Design and Hypotheses. We employed a descriptive survey model in this study, aiming to discuss sports events during the pandemic. The hypotheses tested in the scope of the research are as follows.

H1: Race destination creates a concern for most participants due to COVID-19.

H2: Race conditions worry many participants due to COVID-19.

H3: The participants significantly differ in race destination by their demographics (gender, age, marital status, education, monthly income,

and the number of official running events participated)

H4: The participants significantly differ in race conditions by their demographics (gender, age, marital status, education, monthly income, and the number of official running events participated)

Initially, we carried out a pilot study with a sample of 30 people to explore the validity of the scale and replicated the validity study for the main sample. For the validity study, we performed exploratory factor analysis (EFA) with the varimax rotation method and attempted to confirm the resultant factorial structure using confirmatory factor analysis (CFA). Moreover, we computed Cronbach's alpha coefficients for reliability concerns. Then, we utilized a T-test and one-way analysis of variance to investigate whether the subscales of the survey differed significantly by demographic characteristics of the participants. We ran all statistical analyses on SPSS 20.0 at the 95% confidence interval.

RESULTS

Validity and Reliability. We initially tested the scale as a pilot study on a sample of 30 people to reveal its validity-related findings. First, we determined the data to be suitable for EFA since we computed the Kaiser-Meyer-Olkin (KMO) coefficient to be close to 1 (0.863) and found the result of Bartlett's test of sphericity to be significant ($p < 0.05$) (13). The EFA with the varimax rotation resulted in two factors with an eigenvalue greater than 1. We did not exclude any item on the scale because all factor loadings were greater than 0.4 in the pilot study (14). Then, we administered the scale to the main sample of 520 athletes and replicated EFA. In this step, we found the KMO coefficient to be 0.863 and Bartlett's test of sphericity to be significant ($p < 0.05$), indicating the data to be suitable for the EFA. The replicated EFA with the varimax rotation revealed that all items were clustered under two factors with an eigenvalue greater than 1. While the first factor explained 45.6% of the total variance, it was 25.4% by the second factor (the total variance explained = 71%). The factor loading matrix is given in Table 1 below.

Table 1. Factor Loading Matrix

	Factor	
	1	2
m11	0.952	

m10	0.928
m6	0.850
m9	0.769
m12	0.756
m8	0.596
m14	0.555
m7	0.498
m13	0.458
m3	0.625
m1	0.861
m5	0.751
m4	0.504
m2	0.475

Accordingly, items 1-5 were clustered under the second factor (race destination), while items 6-14 were weighted in the first factor (race conditions).

We then ran CFA to explore the model fit of the scale whose factorial structure was revealed by the EFA. Ultimately, we discovered that all the calculated fit indices were at acceptable levels,

which indicates that the scale shows a good model fit (Table 2).

Table 2. Fit Indices of the Items

Acceptable Fit Indices	Calculated Fit Indices
$\chi^2/sd < 5$	4.215
GFI > 0.90	0.905
AGFI > 0.90	0.904
CFI > 0.90	0.887
TLI > 0.90	0.912
RMSEA < 0.08	0.072
RMR < 0.08	0.077

Considering the parameter coefficients, we found that the race destination subscale was not correlated with items 2 and 3, while it had strong associations with items 1 and 5. Besides, the race conditions subscale was highly linked with item 10. Figure 1 demonstrates the model parameter coefficients.

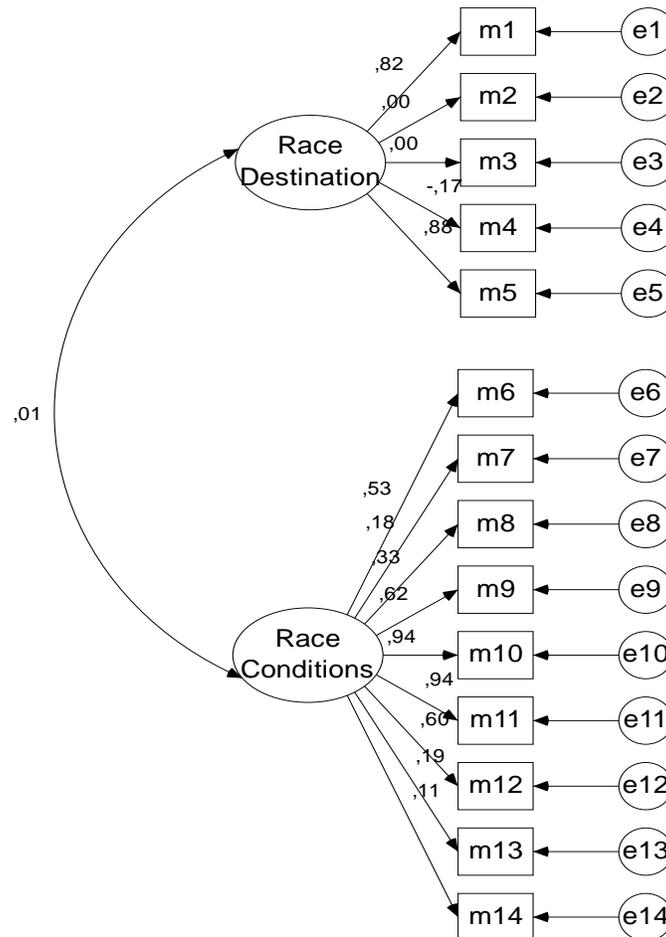


Figure 1. Model Parameter Coefficients

When it comes to reliability, we computed Cronbach's alpha to be 0.882 for the total score. Besides, these values emerged as 0.815 for the

race destination subscale and 0.897 for the race conditions subscale.

	Estimate	S.E.	C.R.	P	Label
m1 <--- F1	1,000				
m2 <--- F1	,001	,053	,018	,986	
m3 <--- F1	,001	,032	,034	,973	
m4 <--- F1	-,167	,049	-3,410	***	
m5 <--- F1	1,118	,256	4,375	***	
m6 <--- F2	1,000				
m7 <--- F2	,288	,072	3,974	***	
m8 <--- F2	,532	,076	6,955	***	
m9 <--- F2	1,049	,094	11,144	***	
m10 <--- F2	1,577	,114	13,778	***	
m11 <--- F2	1,544	,112	13,785	***	
m12 <--- F2	,932	,085	10,945	***	
m13 <--- F2	,306	,073	4,214	***	
m14 <--- F2	,197	,078	2,540	,011	

Standardized Regression Weights: (Group number 1 - Default model)

	Estimate
m1 <--- F1	,821
m2 <--- F1	,001
m3 <--- F1	,002
m4 <--- F1	-,165
m5 <--- F1	,880
m6 <--- F2	,535
m7 <--- F2	,180
m8 <--- F2	,333
m9 <--- F2	,621
m10 <--- F2	,936
m11 <--- F2	,938
m12 <--- F2	,604
m13 <--- F2	,192
m14 <--- F2	,114

Figure 2. output parameters in addition to the model fit coefficients.

For each estimate, one or more of the following items are displayed

Estimate: The estimate.

S.E.: Approximate standard error. (Not available for correlations and standardized regression weights. Also not available for ULS or SLS estimation.)

C.R.: Critical ratio. The critical ratio is the parameter estimate divided by an estimate of its standard error. If the appropriate distributional assumptions are met, this statistic has a standard normal distribution under the null hypothesis that the parameter has a population value of zero. For

example, if an estimate has a critical ratio greater than two (in absolute value), the estimate is significantly different from zero at the .05 level. Even without distributional assumptions, the critical ratios have the following interpretation: For any unconstrained parameter, the square of its critical ratio is, approximately, the amount by which the chi- square statistic would increase if the analysis were repeated with that parameter fixed at zero. (Not available for correlations and standardized regression weights. Also not available for ULS or SLS estimation.)

Responses to the Statements on the Scale.

Table 3. Responses on the Race Destination Subscale

	Yes		No	
	n	%	n	%
Participate in a race conducted in Turkey far away from home with night staying accommodation need	354	65.3%	188	34.7%
Participate in a race conducted in a Turkey region with a remarkable number of COVID-19 incidents	393	72.5%	149	27.5%
Participate in a race conducted abroad in a country with a small number of COVID-19 incidents	43	7.9%	499	92.1%
Participate in a race conducted abroad in a country with a great number of COVID-19 incidents	104	19.2%	438	80.8%
Participate in a race (within Turkey or abroad) that I have to use public transportation to go to	304	56.1%	238	43.9%

More than half of the participants (65.3%) previously participated in a competition held in Turkey that required a night stay accommodation. Besides, 72.5% participated in an event in a region in Turkey with a remarkable number of

COVID-19 incidents. While 7.9% participated in the competition in a country with a low number of COVID-19 incidents, 19.2% participated in a race in a country with a great number of COVID-19 incidents. Finally, 56.1% participated in a

competition (within Turkey or abroad) requiring using public transport.

Table 4. Responses on the Race Destination Subscale

	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
	n	%	n	%	n	%	n	%	n	%
Prefer all race participants to have previously undergone a COVID-19 diagnostic test	145	26.8%	88	16.2%	106	19.6%	64	11.8%	139	25.6%
Participate in a running race held in an urban area	69	12.7%	62	11.4%	174	32.1%	98	18.1%	139	25.6%
Participate in a running race held outside an urban area (rural area, mountain, etc.)	60	11.1%	62	11.4%	157	29.0%	103	19.0%	160	29.5%
Concerned about the gathering of many people in different parts of the race (secretariat, start, provision stations, finish).	166	30.6%	111	20.5%	117	21.6%	76	14.0%	72	13.3%
Concerned about the compliance with the personal hygiene measures by the other participating runners	98	18.1%	100	18.5%	133	24.5%	97	17.9%	114	21.0%
Concerned about the compliance with the personal hygiene measures by the other race's stakeholders	103	19.0%	113	20.8%	133	24.5%	100	18.5%	93	17.2%
Concerned about the measures taken by the organizers to deal with a possible suspicious COVID-19 incident	118	21.8%	140	25.8%	146	26.9%	77	14.2%	61	11.3%
Consume nutrition and hydration products provided by the event organizers	56	10.3%	30	5.5%	99	18.3%	128	23.6%	229	42.3%
Make use of the shared facilities (locker rooms, WC, etc.)	104	19.2%	89	16.4%	119	22.0%	105	19.4%	125	23.1%

While 26.8% of the participants strongly disagreed with "Prefer all race participants to have previously undergone a COVID-19 diagnostic test.", 16.2% disagreed with it, and 19.6% remained undecided on the statement. On the other hand, 11.8% agreed with the statement, and 25.6% strongly agreed with it.

The rates of those who strongly disagreed, disagreed, and remained neutral with "Participate in a race held in an urban area." were 12.7%, 11.4%, and 32.1%, respectively. About one-fifth of the participants (18.1%) agreed with the statement, while 25.6% strongly agreed with it.

The rate of those who strongly disagreed with the statement "Participate in a race held outside an urban area (rural area, mountain, etc.)." was 11.1%. Besides, 11.4% and 29% of the participants disagreed and remained neutral with the statement, respectively. Yet, we found 19% and 29.5% agreed and strongly agreed with it, respectively.

We concluded that 30.6% of the participants strongly disagreed with "Concerned about the gathering of many people in different parts of the race (secretariat, start, provision stations,

finish).", 20.5% disagreed with it, and 21.6% remained undecided. However, 14% agreed with the statement, and 13.3% strongly agreed with it.

While 18.1% of the participants strongly disagreed with "Concerned about the compliance with the personal hygiene measures by the other participating runners.", 18.5% disagreed with it, and 24.5% remained undecided on the statement. On the other hand, 17.9% agreed with the statement, and 21% strongly agreed with it.

The rates of those who strongly disagreed, disagreed, and remained neutral with "Concerned about the compliance with the personal hygiene measures by the other race's stakeholders." were 19%, 20.8%, and 24.5%, respectively. About one-fifth of the participants (18.5%) agreed with the statement, while 17.2% strongly agreed with it.

The rate of those who strongly disagreed with the statement "Concerned about the measures taken by the organizers to deal with a possible suspicious COVID-19 incident." was 21.8%. Besides, 25.8% and 25.9% of the participants disagreed and remained neutral with the statement, respectively. Yet, we found 14,2% and

11.3% agreed and strongly agreed with it, respectively.

We found that 10.3% of the participants strongly disagreed with "Consume nutrition and hydration products provided by the event organizers.", 5.5% disagreed with it, and 18.3% remained undecided. However, 23.6% agreed with the statement, and 42.3% strongly agreed with it.

Finally, we noted that the statement "Make use of the shared facilities (locker rooms, WC, etc.)"

was strongly disagreed by 19.2% of the participants. While 16.4% disagreed with the statement, 22% remained neutral with it. Nevertheless, 19.4% and 23.1% agreed and strongly agreed with the item, respectively.

Differences in the Participants' Scores by Their Demographics

We performed an independent samples T-test and one-way ANOVA to explore whether the participants' scores on the subscales significantly differed by their demographics (Table 5).

Table 5. Participants' Mean Scores and Their Demographics

	Race Destination			Race Conditions		
	M	SD	P	M	SD	P
Gender			0.248			0.110
Female	7.69	0.97		28.78	7.91	
Male	7.82	1.15		27.57	7.29	
Marital Status			0.354			0.282
Single	7.84	1.12		28.26	7.64	
Married	7.75	1.11		27.55	7.31	
Age			0.117			0.252
16-25 years	8.00	1.13		28.18	7.51	
26-35 years	7.97	1.14		29.09	7.60	
36-45 years	7.73	1.22		27.32	7.51	
45+ years	7.71	0.97		27.65	7.27	
Educational Attainment			0.975			0.255
High School	7.75	1.20		28.52	7.33	
Associate Degree	7.81	1.09		29.00	6.57	
Undergraduate Degree	7.80	1.11		27.94	7.47	
Postgraduate Degree	7.79	1.05		26.83	7.68	
Monthly Income			0.018*			0.471
TRY 4000-4500	7.93	1.15		27.94	7.84	
TRY 4500-5000	7.97	1.15		29.28	5.17	
TRY 5001-5500	8.24	1.39		29.15	6.64	
TRY 5501-6000	7.63	1.06		28.66	7.15	
TRY 6001 and more	7.68	1.05		27.44	7.60	
The Number of Events Participated			0.898			0.113
1-2	7.89	1.16		27.92	7.52	
3-4	7.75	1.03		29.39	8.28	
5-6	7.81	1.04		27.68	7.75	
7-8	7.68	1.03		29.68	6.63	
9 and over	7.79	1.15		27.25	7.24	

*P<0.05

Accordingly, while the participants significantly differed in race destination by monthly income (P<0.05), there were no significant differences in this variable by their other demographics. Then, we performed a Tukey test to reveal the source of the difference and found that those with a monthly income of TRY 5001-5500 had a significantly higher level of responding "No" to the items on the race destination subscale than other income groups.

DISCUSSION

In December 2019, authorities of Wuhan city in China reported an outbreak of SARS-CoV-2

infection causing the disease COVID-19, defined as atypical pneumonia (15). In March 2020, the World Health Organization (WHO) classified it as a pandemic. Such a pandemic, having emerged unexpectedly in the world, has caused a severe crisis in the sports industry, as well as in others. In the early stages, global sports activities almost came to an end; instead, home-based sports activities were initiated using virtual networks. Authorities had to decide to cease sports competitions and activities of sports clubs. Meanwhile, sports media remained in a state of uncertainty. All such undesirable events have led to financial losses and economic difficulties for

sector owners, producers, athletes, and trainers, sports employees (16).

To date, much of the early research work has focused on the health-related implications of sports regarding athlete training, post-pandemic return to school, and the implementation of mass gathering policies (15, 17, 18). Besides, it is also deemed noteworthy to uncover the impacts of COVID-19 on sports events.

In this study, we aimed to discuss sports events during the pandemic. In this context, we randomly selected the sample among the marathon athletes participating in the 16th NKolay Istanbul Half Marathon on April 4, 2021. We administered a demographic information form and a two-factor (race destination and race conditions) 14-item scale, developed by (11), to a total of 542 runners (125 were females (23.1%), and 417 were males (76.9%)). In the analyses, we first explored the validity of the scale through a pilot study with a sample of 30 people and replicated the validity analyses on the main sample. We ran EFA with the varimax rotation method and CFA to reveal and confirm its factorial structure, respectively. Then, we computed Cronbach's alpha coefficients to determine the reliability of the total score and subscales. Accordingly, we concluded these coefficients to be 0.882 for the total score, 0.815 for the race destination subscale, and 0.897 for the race conditions subscale, which indicates that the scale is highly reliable. Finally, we used an independent samples T-test and one-way ANOVA to reveal whether the participant's scores on the subscales significantly differed by their demographics. We performed all statistical analyses on SPSS 20.0 at the 95% confidence interval.

The age range of the sample was 16-64 years ($M = 41.8$ years). We found that 42.3% of the participants to be single, and 57.7% to be married. While 19.9% had a high school degree, 5.9% had an associate degree, 49.6% had an undergraduate degree, and 24.5% had a postgraduate graduate. Finally, 23.6% had a monthly income of TRY 4000-4500, 5.9% had TRY 4501-5000, 6.5% had TRY 5001-5500, 6.5% had TRY 5501-6000, and 57.6% had TRY 6001 and more.

In the scope of the present study, we sought answers to four hypotheses in the study. The findings confirmed our first two hypotheses (H1:

"Race destination creates a concern for most participants due to COVID-19." and H2: "The race conditions worry many participants due to COVID-19"). We were able to confirm the third hypothesis partially (H3: "The participants significantly differ in race destination by their demographics (gender, age, marital status, education, monthly income, and the number of official running events participated)."). Accordingly, the participants significantly differed in the race destination subscale by only income. Finally, our results rejected the fourth hypothesis (H4: "The participants significantly differ in race conditions by their demographics (gender, age, marital status, education, monthly income, and the number of official running events participated)."). Overall, we may assert that COVID-19 is a prime concern for half marathon runners.

In parallel with our study (11), noted that Modern Olympics, including Tokyo Olympics and all other sports events across the world, was canceled or postponed due to the pandemic for the first time in history without a clear indication of how or when it would be resolved. In their study, they focused on Greek runners and variables affecting their decision-making process when deciding which race to compete in during the pandemic. Eventually, they concluded that some issues with the race destination and conditions worried Greek runners due to the pandemic, which confirms our results and implies that COVID-19 affects sports events worldwide. (19), in his review on the impacts of COVID-19 on sports events, stated that the postponement of sports activities in Asia in January 2020 led to the cancelation of sports events in many countries, which brought significant changes to the exercise course of the athletes, competitions, training programs, and all other activities of sports facilities. On the other hand, many professional sports organizations have needed support to avoid going bankrupt due to the pandemic since April 2020. Accordingly, he asserted that the reversal of undesirable impacts of the pandemic would not be possible only with economic support; instead, sports events should be re-introduced and organized with the help of innovative solutions in compliance with the pandemic facts (19).

Considering the effects of COVID-19, not only in terms of marathons but also in other sports

events, it is not prudent to assert that the sports industry is not in a bright situation. COVID-19 has created a lot of complexity and uncertainty for industries, including sports and entertainment events. The disease has been classified as a global pandemic due to its significant adverse consequences for societies, economies, and sports and recreation activities. For example, the cancelation of major sporting events, such as UEFA EURO 2020, the Olympic/Paralympic Games, and many small community recreational activities, has had both economic and social consequences (20). In fact, (20). suggest that how sports and recreation are managed need to be considered through the pandemic. Other studies focused on the effects of COVID-19 on sports events in certain countries by recruiting such variables as women's soccer in Montenegro (21). and England (22). Sports (23), and stadiums (24). In addition, a study carried out a discipline-specific analysis of the impacts of COVID-19 on professional soccer (25). Besides, a sociological analysis (26). highlighted the enormous COVID-19-related rhetoric regarding sports, physical activity, and leisure (23). stated that the social, cultural, and economic inequalities in society and sports are particularly disturbing and suggested that there is a need for a more critical approach to the role of sports and exercise in society and the structure and functions of sports events in a post-pandemic world (27).

CONCLUSION

As it is clear, sports events have had to face adverse effects of the pandemic. Yet, the sports industry is gradually re-starting its activities in a

REFERENCES

1. Gammon S, Robinson T. Sport and Tourism: A Conceptual Framework. *J Sport Tourism*. 2003;**8**(1):21-26. doi: 10.1080/14775080306236
2. Avraham E. Destination image repair during crisis: Attracting tourism during the Arab Spring uprisings. *Tourism Manage*. 2015;**47**:224-232. doi: 10.1016/j.tourman.2014.10.003
3. Higham JES, Hinch TD. Sport tourism development: Avenues of tourism development associated with a regional sport franchise at an urban tourism destination. *Sport Tourism Principle Practice*. 2002:19-34.
4. Hall CM. Hallmark tourist events: Impacts, management and planning. London: Bellhaven Press 1994.
5. Higham J. Sport as an avenue of tourism development: An analysis of the positive and negative impacts of sport tourism. *Current Issue Tourism*. 1999;**2**(1):82-90. doi: 10.1080/13683509908667845
6. Preuss H. The conceptualisation and measurement of mega sport event legacies. *J Sport Tourism*. 2007;**12**(3-4):207-228. doi: 10.1080/14775080701736957

new way with special restrictions thanks to scientific progress in dealing with the virus. COVID-19 has caused radical changes to the sports and leisure management processes and the economic, social, and cultural milieu of the sports industry. Moreover, the impacts of such changes seem likely to continue long after the disease has disappeared. Accordingly, further studies are needed to anticipate the sports industry and address the state of sports events in the post-pandemic period, which will likely play an essential role in the planning of the industry and helping it continue to grow.

On the other hand, governments and intergovernmental organizations have a lot to do in the mid-and post-pandemic. It is deemed vital for sports that these organizations guide sports federations, clubs, and sports events worldwide regarding safety, health, labor, and other international standards and protocols applicable. This will allow all stakeholders to work collaboratively to overcome current challenges and facilitate future sports events to be safe and enjoyable for all as before.

APPLICABLE REMARKS

- Participating in a race in another country are a source of concern due to both individual factors and travel restrictions imposed by the countries due to the pandemic expansion.
- Race conditions worry many participants due to COVID-19. Therefore, organizers should take many precautions while carrying out these events and explain them to the participants with an effective communication strategy.

7. Giampiccoli A, Lee S, Nauright J. Destination South Africa: comparing global sports mega-events and recurring localised sports events in South Africa for tourism and economic development. *Curr Issue Tourism*. 2013;**18**(3):229-248. doi: 10.1080/13683500.2013.787050
8. Cetin A, Doganer A. An Examination of Mass Sporting Event Effects on Local Government Economy: The Case of 41st Istanbul Marathon. *Ann Appl Sport Sci*. 2020;**8**(3):1-14. doi: 10.29252/aassjournal.850
9. Hoffman MD, Krouse R. Ultra-obligatory running among ultramarathon runners. *Res Sports Med*. 2018;**26**(2):211-221. doi: 10.1080/15438627.2018.1431533 pmid: 29378427
10. Papanikos GT. The real exchange rate of euro and Greek economic growth. *J Econ Asymmetries*. 2015;**12**(2):100-109. doi: 10.1016/j.jeca.2015.04.002
11. Maditinos Z, Vassiliadis C, Tzavlopoulos Y, Vassiliadis SA. Sports events and the COVID-19 pandemic: assessing runners' intentions for future participation in running events - evidence from Greece. *Tourism Recreat Res*. 2020;**46**(2):276-287. doi: 10.1080/02508281.2020.1847422
12. Swart K, Maralack D. COVID-19 and the cancellation of the 2020 Two Oceans Marathon, Cape Town, South Africa, *Sport in Society*. 2020;**23**(11):1736-1752. doi: 10.1080/17430437.2020.1805900
13. Büyüköztürk Ş. Sosyal bilimler için veri analizi el kitabı. Ankara: Pegem Akademi. 2014.
14. Nunnally J. Psychometric Theory. 2nd ed. New York: McGraw Hill 1978.
15. Timpka T. Sports Health During the SARS-Cov-2 Pandemic. *Sports Med*. 2020;**50**(8):1413-1416. doi: 10.1007/s40279-020-01288-7 pmid: 32361898
16. Keshkar S, Dickson G, Ahonen A, Swart K, Adeasa F, Epstein A, et al. The effects of Coronavirus pandemic on the sports industry: An update. *Ann Appl Sport Sci*. 2021;**9**(1):1-23. doi: 10.29252/aassjournal.964
17. Halabchi F, Ahmadinejad Z, Selk-Ghaffari M. COVID-19 epidemic: exercise or not to exercise. That is the Question. *Asian J Sport Med*. 2020;**11**(1):e102630. doi: 10.5812/asjasm.102630
18. Nieß AM, Bloch W, Friedmann-Bette B, Grim C, Halle M, Hirschmüller A, et al. Position stand: return to sport in the current coronavirus pandemic. *Dtsch Z Sportmed*. 2020;**71**:E1-2. doi: 10.5960/dzsm.2020.437
19. Aygün M. Spor Organizasyonlarında Covid-19 Etkisi. *Gençlik Araştırmaları Dergisi*. 2021;**9**(23):43-52.
20. Parnell D, Widdop P, Bond A, Wilson R. COVID-19, networks and sport. *Managing Sport and Leisure*. 2020:1-7. doi: 10.1080/23750472.2020.1750100
21. Begović M. Effects of COVID-19 on society and sport a national response. *Manag Sport Leisure*. 2020:1-6. doi: 10.1080/23750472.2020.1779115
22. Clarkson BG, Culvin A, Pope S, Parry KD. Covid-19: Reflections on threat and uncertainty for the future of elite women's football in England. *Manag Sport Leisure*. 2020:1-12. doi: 10.1080/23750472.2020.1766377
23. Fitzgerald H, Stride A, Drury S. COVID-19, lockdown and (disability) sport. *Managing Sport Leisure*. 2020:1-8. doi: 10.1080/23750472.2020.1776950
24. Mastromartino B, Ross WJ, Wear H, Naraine ML. Thinking outside the 'box': A discussion of sports fans, teams, and the environment in the context of COVID-19. *Sport Soc*. 2020:1-17. doi: 10.1080/17430437.2020.1804108
25. Drewes M, Daumann F, Follert F. Exploring the sports economic impact of COVID-19 on professional soccer. *Soccer Soc*. 2020:1-13. doi: 10.1080/14660970.2020.1802256
26. Evans AB, Blackwell J, Dolan P, Fahlén J, Hoekman R, Lenneis V, et al. Sport in the face of the COVID-19 pandemic: Towards an agenda for research in the sociology of sport. *Europe J Sport Soc*. 2020;**17**(2):85-95. doi: 10.1080/16138171.2020.1765100
27. Byers T, Gormley KL, Winand M, Anagnostopoulos C, Richard R, Digennaro S. COVID-19 impacts on sport governance and management: a global, critical realist perspective. *Manag Sport Leisure*. 2021:1-9. doi: 10.1080/23750472.2020.1867002