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## The Effects of the Covid-19 Pandemic on Sports, Athletes and Trainers During the Normalization Phase

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### ABSTRACT

The Covid-19 virus, which appeared in Wuhan, China in late December 2019 and early January 2020, caused fear and anxiety worldwide. This virus, which causes deaths in all countries where the epidemic occurs, seriously threatens all people. In order to reduce the number of deaths and slow down the spread rate of the virus which has spread to more than 180 countries including Turkey and threatened people from all sectors, serious, fundamental decisions were made by the Turkish Ministry of Health and all other official institutions resulting in various important effects and results in many areas including social, economical, political, financial, administrative, legal, military, religious and cultural, and these decisions were conveyed to the society through all communication channels.

European Championships which were planned to be held in 2020, all kinds of international sports events and organizations, leagues, all kinds of conferences, scientific conferences, organizations and mass religious gatherings were postponed or

canceled. Due to the cancellations, all kinds of businesses have suffered great losses along with the people in the sports tourism industry, businesses in the material supply chain of sports industry. Nevertheless, athletes, businesses, coaches, sports club owners, athletes who did not have the disease and who did not have Covid-19 symptoms, were indirectly faced with loss of work, and thus, were affected deeply by the pandemic due to the trauma caused by the disruption of their financial balance, fear, and uncertainty.

In this qualitative study, the current situation was analyzed to identify the measures taken in order for sports activities to start again, to establish trust in sports organizations, and to protect the health of the sports community and the audience. Based on the findings, recommendations for the future were developed.

**Key Words:** Covid-19, Pandemic, Sports Industry, Athlete Health, Sports, Athlete

## INTRODUCTION:

Novel Coronavirus Disease (COVID-19) is caused by a virus identified on January 13, 2020, as a result of research conducted in a group of patients who developed respiratory tract symptoms (fever, cough, shortness of breath) in late December in the Wuhan province of China. On March 11, 2020, the World Health Organization (WHO) declared this virus-related disease a pandemic (AIS, 2020).

**Figure 1:** Other Pandemics Seen in the Last 20 Years



Source: (WHO, 2018)

Significant outbreaks that occurred in the past 20 years from 2018 are seen in the timeline. (Budak, F. and Korkmaz, Ş. (2020)). Although there have been pandemics in the past, Covid-19 has become the virus that's more deadly in terms of transmission rate in comparison to previous pandemics.

The outbreak was initially detected in people who had been in the seafood and animal markets in this region. Then, it spread to other cities in the province of Hubei, mainly Wuhan, and other provinces of the People's Republic of China and other countries of the world through human-to-human transmission.

Coronaviruses are a large family of virus that can cause disease in animals or humans. In humans, several coronaviruses are known to cause respiratory infections, from common cold to more severe diseases such as the Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). SAR-CoV-2 virus causes the Novel Coronavirus

Disease. Although it has been reported that there may be asymptomatic cases, their rate is unknown. The most common symptoms are fever, cough and shortness of breath. In severe cases, pneumonia, severe respiratory failure, kidney failure and death may develop. (Turkish Ministry of Health, 2020)

Globally, we face a serious virus with a lethal effect that does not distinguish race, language, religion and sex globally. The world became aware of the Covid-19 outbreak for the first time when China reported to the World Health Organization on December 31, 2019 that a mysterious respiratory disease emerged in the city of Wuhan in the Hubei province, with unknown causes. (Euronews, 2020)

This virus first seen in China crossed the borders and threatens all humanity in terms of both economic and lethal effects on a global scale. Due to the Covid-19 virus, which has a high mortality rate, all of the world has turned to conduct laboratory researches and scientific studies focusing on finding solutions to the problems experienced. Economic, political, financial, administrative, legal, military, religious and cultural measures constituted the main agenda of all countries where the pandemic occurred by making simulations and analyses aimed at controlling and preventing the epidemic while the studies are going on. (Wikipedia, 2020).

Globally, 40% of COVID-19 cases are on the European Continent and 36% are on the North American Continent. Nearly 150 thousand of more than 1.5 million cases died in Europe. (TTB, 2020). The World Health Organization announced on March 13 that "Europe has become the epicenter of the coronavirus (Covid-19) pandemic." (Euronews, 2020).

Table 2.: Current Status of COVID-19 Cases by Continents

	<b>Total Cases</b>	<b>Total Deaths</b>
Europe	2645190	198621
North America	4414364	194302
Asia	3260218	76564
South America	3174230	115082
Africa	686889	14714
Australia	13114	140
<b>Total</b>	<b>14194005</b>	<b>599423</b>

Source (Worldometer, 2020)

Social distancing and wearing masks are among the measures taken in many countries in order to reduce deaths, to slow down the spread, and to gain time for treatment studies (Gonca Telli Yamamoto et al., 2020)



Source: Johns Hopkins University, local officials. (Case Map)

### **Measures Taken in Sports Competitions Due to Covid-19**

Sports is perhaps one of the areas that coronavirus pandemics affected the most. During this pandemic we're going through as the whole world, sports industry has been greatly affected by the COVID-19 pandemic like all other industry areas. 2020 Tokyo Olympic Games, (IOC, 2020) EURO 2020, Champions League, UEFA Europa League, Copa America, NBA, 2020 Asian Cup, Formula 1, CEV organizations are some of the sports events postponed or canceled due to COVID-19.

Massive communities gathering for large sporting events, international visitors and millions of host country residents are at risk of infectious diseases, including endemic diseases. (Petersen et al., 2016; Yanagisawa et al., 2018). It will be inevitable for athletes or spectators to spread the virus to a wider audience (Halabchi et al., 2020).

In many countries where the pandemic could not be brought under control and the increase in the number of cases is high, competitions were stopped, international events were postponed and activities were canceled. The sports institution, which has become an organic part of our social life, is now under the influence of the covid-19 virus that affected the whole

world. (Türkmen, 2020). It has been observed that all activities with crowded audience have negative effects on the transmission speed. Organized competitions take place in large sports stadiums with a large number of spectators, which creates a favorable environment for the spread of viruses (Halabchi et al., 2020). Therefore, such activities that bring communities together are closely related to important human health problems (Memish et al., 2019).

The Turkish Ministry of Youth and Sports announced that competitions in football, basketball, volleyball and handball leagues have been stopped and the decisions would be effective as of March 19, 2020. It is also necessary to take measures for COVID-19 in the sports community (Toresdahl & Asif, 2020).

Previously, the decision to play Leagues without spectators was made when there was only one case in our country. Turkey is the country that made this decision the earliest in Europe based on the case numbers. In the context of the pandemic, the world of sports has faced an unprecedented crisis. (Türkmen, 2020). Businesses, amateur sports clubs, professional athletes in our country have been deeply affected by all the measures taken. All these postponement and cancellation decisions not only lead to consequences related to sports, but also trigger multi-dimensional and serious economic and social problems as a chain. (Türkmen, 2020).

Although the normalization phase started in Turkey as of June 1, 2020, it is seen that companies producing supplies for sports clubs that have been closed during the pandemic and people working in the sports sector both in Turkey and the world are facing unemployment.

Organized competitions take place in large sports stadiums with a large number of spectators, which creates a favorable environment for the spread of viruses (Halabchi et al., 2020). Although the normalization steps are taken, the ongoing global epidemic will impact clubs, athletes or broadcasters significantly.

### **Effects of Covid-19 on Coaches**

According to the 2018 data of our country's General Directorate of Sports Services, there are a total of 15,197 coaches affiliated with independent federations. It was seen that the coaches working in sports clubs worldwide did suffer great job losses due to not having the opportunity to work during the pandemic.

Table 3: Number of Coaches

Number of Coaches by Ranks as of 31.12.2018										
	1. Rank	1. Rank Equivalent	2. Rank	2. Rank Equivalent	3. Rank	3. Rank Equivalent	4. Rank	4. Rank Equivalent	5. Rank	Grand Total
<b>TOTAL</b>	<b>9.559</b>	<b>788</b>	<b>2.213</b>	<b>650</b>	<b>306</b>	<b>1.523</b>	<b>74</b>	<b>40</b>	<b>44</b>	<b>15.197</b>

Source: 31/12/2018 General Directorate of Sports Services

As a result of stay home decisions to slow down the spread, it was announced that education in the Spring 2020 semester would be online (YÖK, 2020). During the pandemic, some coaches in various branches stated that they switched to online training model. The orientation towards distance education has become an inevitable necessity due to the constraints of physical and material conditions. (Kırık, 2014). As a result of reductions experienced due to amateur branches not having the opportunity to train online, coaches faced economic losses in this process.

Many citizens who started to spend time at home with the call for "stay at home" turned to sports. Sports performed at home should be done consciously to avoid injuries in the body. At the end of the process, the demand for fitness, pilates, step-aerobics and trainers will increase with the interest in the e-sports field.

### Effects of Covid-19 on Athletes

The fact that athletes caught COVID-19 since the first day of the pandemic created concerns in terms of athlete health. COVID-19 not only causes delays in training and competition schedules, but also causes important health problems. (Chen et al., 2020; Zheng, Ma, Zhang, & Xie, 2020). Lack of training and decrease in performance will also have important implications for athletes in the future. Performance loss of athletes occurs in 2-4 weeks in isolation (Umut Ziya Koçak et al. 2020). Athletes who exceed the critical loss period will inevitably have a more difficult process to recover.

Maintaining the harmony developed with training and ensuring improvement require training stimuli of optimal intensity. When such stimuli are interrupted, the athlete is affected by functional or even psychic disruptions. This condition (detraining) is called the reduction of the status achieved in training. (Eniseler, 2017). There are many reasons for this reduction. Factors including being injured, end-of-season transition, and excessive training causes

detraining syndrome in athletes. With the Covid-19 period, many elite and non-elite athletes have faced the reduction of the status (detraining) syndrome achieved in training in many countries of the world and regardless of the branch. Changes occurring in athletes with this syndrome occur in max VO<sub>2</sub> reduction, general endurance levels, and the greatest losses occur in special condition and coordination levels. (Jukic, Calleja-González, et al., 2020). As the time spent by the athletes without training during the pandemic increases, the severity of all the effects that may occur within the athletes will increase.

In this syndrome, changes in the mood of the athlete, changes in psychological factors, headaches, anorexia, insomnia, fatigue and psychological disorders begin to appear in athletes who have stopped training for a long time due to Covid-19. As the time without training increases, uncertainty and unwillingness of athletes to return to their previous performances will cause great losses. In order to minimize these losses, training programs should be planned carefully for athletes. These plans should relatively reduce the number, intensity and scope of training during the Covid-19 period so that athletes can overcome this syndrome with minimal negative impact. In order not to be exposed to this syndrome, athletes can do exercises outside of the sport in which they specialize. During this transition period, athletes must do sports with recreational sports activities. (Eniseler, 2017).

The time spent without exercise will have consequences in all aspects of the athlete. Since it is not known when the outbreak will disappear completely, and the stage of treatment and vaccination methods, athletes must make efforts to maintain their own quality of life. Due to the negative effects that will occur in elite athletes, transfer fees will also negatively impact them.

In addition to the fact that COVID-19 negatively affects athlete's health, professional transfer policies of elite athletes have been affected by this situation. Just as there are athletes with falling market prices, there will also be athletes whose market value is rising. Although athletes do not get sick, they are affected by pandemic due to the cancellation of competitions and therefore, loss of income (Koçak et al. 2020).

Table 4: Number of Athletes in Turkey by Cities

*	Licensed			Active			Licence Ranked	Active Ranked
	Men	Women	Total	Men	Women	Total		
Total	<b>3.261.853</b>	<b>1.646.102</b>	<b>4.907.955</b>	<b>433.849</b>	<b>261.849</b>	<b>695.698</b>	<b>4.907.955</b>	<b>695.698</b>

Source: 31/12/2018 General Directorate of Sports Services

Table 4. The active athlete numbers in all braches are presented according to the 2018 data of the General Directorate of Sports Services.

As of 31.12.2018, the number of registered athletes in all branches throughout our country has been recorded as 4,907.955 and the number of active athletes as 695,698. Studies on how many athletes are affected by covid-19 during the pandemic would be useful when the updated data of 2019 are taken into account.

Table 5: Approved COVID-19 deaths by gender and age group (including cases of 28/06/2020).

	Age Group							
	< 2	2-4	5-14	15-24	25-49	50-64	65-79	80+
<b>Male</b>	2	1	2	2	237	857	1,381	701
<b>Female</b>	2	0	3	6	97	315	787	704
<b>Total</b>	<b>4</b>	<b>1</b>	<b>5</b>	<b>8</b>	<b>334</b>	<b>1,172</b>	<b>2,168</b>	<b>1,405</b>

Number of notified COVID-19 deaths by age group and sex including 28/06/2020

Source: Turkish Ministry of Health Data

Out of 5,097 people who died due to COVID-19, 3,183 (62%) were male and 1,914 (38%) were female. The median age is 71. Although 3,573 (70%) of deaths occurred in people aged 65 and over, only 11% of cases are in this age group. So far, 10 deaths due to COVID-19 have been reported in children aged 15 and under and have been approved by the Ministry of Health (Table 5).

Table 6: Number and incidence per 100,000 population of laboratory-confirmed COVID-19 deaths by NUTS-1, Turkey

NUTS-1	Total number of deaths*	Number of deaths/ 100,000 population
Istanbul	2,687	17.3
Western Marmara	152	4.2
Aegean	490	4.6
Eastern Marmara	534	6.6
Western Anatolia	336	4.1
Mediterranean	124	1.2
Central Anatolia	84	2.1
Western Blacksea	182	3.9
Eastern Blacksea	89	3.3
Northeastern Anatolia	63	2.9
Mideastern Anatolia	53	1.3
Southeastern Anatolia	303	3.4
<b>Turkey</b>	<b>5,097</b>	<b>6.1</b>

\* Total number of deaths including 28/06/2020

Source: Turkish Ministry of Health Data

Table 7: Number of Athletes in Turkey by Cities

Cities	LICENSED			Active			Licensed	Active
	MALE	WOMEN	TOTAL	MALE	WOMEN	TOTAL		
<b>TOTAL</b>	<b>3.261.853</b>	<b>1.646.102</b>	<b>4.907.955</b>	<b>433.849</b>	<b>261.849</b>	<b>695.698</b>	<b>4.907.955</b>	<b>695.698</b>
ADANA	84.964	42.373	127.337	12.222	8.179	20.401	127.337	20.401
ADYAMAN	36.741	13.537	50.278	3.526	2.027	5.553	50.278	5.553
AFYONKARAHİSAR	27.459	15.011	42.470	1.848	1.304	3.152	42.470	3.152
AĞRI	21.670	10.017	31.687	2.490	1.120	3.610	31.687	3.610
AKSARAY	15.841	8.403	24.244	1.750	1.263	3.013	24.244	3.013
AMASYA	21.860	11.846	33.706	2.877	2.195	5.072	33.706	5.072
ANKARA	207.601	97.970	305.571	30.962	20.484	51.446	305.571	51.446
ANTALYA	96.014	55.981	151.995	10.812	8.143	18.955	151.995	18.955
ARDAHAN	7.836	3.934	11.770	1.564	953	2.517	11.770	2.517
ARTVİN	13.673	7.329	21.002	1.229	724	1.953	21.002	1.953
AYDIN	39.860	23.252	63.112	4.786	3.515	8.301	63.112	8.301
BALIKESİR	39.631	21.766	61.397	5.093	3.636	8.729	61.397	8.729
BARTIN	15.378	6.315	21.693	1.626	1.066	2.692	21.693	2.692
BATMAN	26.343	12.829	39.172	2.422	1.033	3.455	39.172	3.455
BAYBURT	6.715	1.373	8.088	768	228	996	8.088	996
BİLECİK	10.657	6.753	17.410	1.022	801	1.823	17.410	1.823
BİNGÖL	12.217	4.473	16.690	1.079	401	1.480	16.690	1.480
BİTLİS	27.602	13.637	41.239	2.838	1.272	4.110	41.239	4.110
BOLU	17.922	9.500	27.422	2.073	1.416	3.489	27.422	3.489
BURDUR	18.340	10.501	28.841	1.489	1.278	2.767	28.841	2.767
BURSA	147.702	70.976	218.678	19.041	10.281	29.322	218.678	29.322
ÇANAKKALE	20.149	13.026	33.175	2.435	1.796	4.231	33.175	4.231
ÇANKIRI	10.761	5.886	16.647	953	675	1.628	16.647	1.628
ÇORUM	27.134	11.717	38.851	2.522	1.519	4.041	38.851	4.041
DENİZLİ	46.319	28.630	74.949	3.943	2.434	6.377	74.949	6.377
DIYARBAKIR	46.473	27.455	73.928	6.115	3.567	9.682	73.928	9.682
DÜZCE	16.849	8.568	25.417	1.868	1.023	2.891	25.417	2.891
EDİRNE	18.312	11.864	30.176	1.711	1.233	2.944	30.176	2.944
ELAZIĞ	23.584	8.576	32.160	2.856	1.273	4.129	32.160	4.129
ERZİNCAN	16.632	6.860	23.492	1.746	911	2.657	23.492	2.657
ERZURUM	44.201	16.451	60.652	7.859	3.005	10.864	60.652	10.864
ESKİŞEHİR	46.669	28.812	75.481	4.552	3.340	7.892	75.481	7.892
GAZİANTEP	74.529	44.119	118.648	5.872	3.065	8.937	118.648	8.937
GİRESUN	17.013	8.130	25.143	2.052	1.386	3.438	25.143	3.438
GÜMÜŞHANE	9.712	4.340	14.052	603	348	951	14.052	951
HAKKARİ	9.997	4.404	14.401	681	478	1.159	14.401	1.159
HATAY	60.248	30.716	90.964	5.295	2.528	7.823	90.964	7.823
İĞDIR	12.085	5.220	17.305	1.352	603	1.955	17.305	1.955
ISPARTA	18.670	10.664	29.334	2.405	1.527	3.932	29.334	3.932
İSTANBUL	448.149	207.103	655.252	88.704	53.245	141.949	655.252	141.949
İZMİR	138.731	73.886	212.617	18.266	13.407	31.673	212.617	31.673
KAHRAMANMARAŞ	52.030	19.518	71.548	6.965	3.025	9.990	71.548	9.990
KARABÜK	15.420	8.919	24.339	1.424	966	2.390	24.339	2.390
KARAMAN	15.094	9.718	24.812	2.135	1.518	3.653	24.812	3.653
KARS	9.477	4.088	13.565	715	365	1.080	13.565	1.080
KASTAMONU	17.095	9.126	26.221	1.179	927	2.106	26.221	2.106
KAYSERİ	68.488	32.830	101.318	10.819	5.007	15.826	101.318	15.826
KIRIKKALE	20.849	10.198	31.047	1.903	1.246	3.149	31.047	3.149

KIRKLARELİ	12.228	8.355	20.583	1.210	1.071	2.281	20.583	2.281
KIRŞEHİR	23.292	16.335	39.627	3.672	3.357	7.029	39.627	7.029
KİLİS	9.826	6.014	15.840	812	373	1.185	15.840	1.185
KOCAELİ	111.143	70.270	181.413	14.425	8.421	22.846	181.413	22.846
KONYA	79.328	41.807	121.135	11.612	6.805	18.417	121.135	18.417
KÜTAHYA	20.529	10.677	31.206	2.979	2.043	5.022	31.206	5.022
MALATYA	41.247	19.211	60.458	5.178	2.637	7.815	60.458	7.815
MANİSA	53.121	29.634	82.755	5.425	3.671	9.096	82.755	9.096
MARDİN	27.010	12.010	39.020	2.364	1.044	3.408	39.020	3.408
MERSİN	65.473	33.994	99.467	6.547	4.180	10.727	99.467	10.727
MUĞLA	45.371	25.514	70.885	6.426	5.069	11.495	70.885	11.495
MUŞ	12.782	4.656	17.438	964	341	1.305	17.438	1.305
NEVŞEHİR	11.400	7.085	18.485	1.109	908	2.017	18.485	2.017
NİĞDE	16.900	9.101	26.001	2.155	1.517	3.672	26.001	3.672
ORDU	37.823	19.394	57.217	5.222	3.265	8.487	57.217	8.487
OSMANIYE	37.109	16.095	53.204	4.381	1.850	6.231	53.204	6.231
RİZE	21.871	11.649	33.520	2.075	1.077	3.152	33.520	3.152
SAKARYA	34.880	16.794	51.674	4.863	2.552	7.415	51.674	7.415
SAMSUN	63.595	31.479	95.074	10.189	6.116	16.305	95.074	16.305
SİİRT	18.434	6.813	25.247	1.926	655	2.581	25.247	2.581
SİNOP	19.212	10.476	29.688	2.262	1.766	4.028	29.688	4.028
SİVAS	30.409	13.582	43.991	3.254	1.514	4.768	43.991	4.768
ŞANLIURFA	47.552	19.338	66.890	7.693	3.081	10.774	66.890	10.774
ŞIRNAK	17.918	8.914	26.832	1.346	742	2.088	26.832	2.088
TEKİRDAĞ	31.362	16.734	48.096	4.098	2.876	6.974	48.096	6.974
TOKAT	26.132	12.140	38.272	5.513	2.717	8.230	38.272	8.230
TRABZON	32.072	15.247	47.319	3.440	2.241	5.681	47.319	5.681
TUNCELİ	8.433	5.260	13.693	891	706	1.597	13.693	1.597
UŞAK	13.392	6.575	19.967	1.657	946	2.603	19.967	2.603
VAN	31.946	10.772	42.718	4.646	1.764	6.410	42.718	6.410
YALOVA	16.305	8.296	24.601	2.286	1.514	3.800	24.601	3.800
YOZGAT	21.602	11.199	32.801	2.265	1.472	3.737	32.801	3.737
ZONGULDAK	21.460	12.082	33.542	2.517	1.822	4.339	33.542	4.339
<b>Total</b>	<b>3.261.853</b>	<b>1.646.102</b>	<b>4.907.955</b>	<b>433.849</b>	<b>261.849</b>	<b>695.698</b>	<b>4.907.955</b>	<b>695.698</b>

Source: 31/12/2018 General Directorate of Sports Services

According to this table, determining the data of whether there are athletes among the deceased should also be considered as an important finding.

### Effects of Covid-19 on Clubs

Many clubs faced financial losses within the scope of the measures determined by the federations regarding health and safety in club facilities, training fields, stadiums, private club sports areas. Professional clubs experience many problems in terms of advertising and sponsorship agreements, and they encounter game broadcasts and loss of spectator income. The risk of cancellation of advertising and sponsorship agreements is also high.

Table 8: Number of Clubs

<b>Number of Clubs by Types as of 31/12/2018</b>						
	Military	Organization	School	Gyms	Specialized	Total
<b>Grand Total</b>	<b>5</b>	<b>1.052</b>	<b>896</b>	<b>13.399</b>	<b>476</b>	<b>15.828</b>

Source: 31/12/2018 General Directorate of Sports Services

According to the 2018 data of the General Directorate of Sports Services, there are a total of 15,228 active clubs. Covid-19, which is a globally important public health problem, has reduced the demand for gyms with membership systems such as Taekwondo, Karate, Gymnastics, Fitness halls due to health concerns and many of these gyms have closed down. Many of the clubs suffered financial losses to the level of not being able to cover their current rent, staff and fixed expenses. The economic losses experienced forced many clubs to downsize or end their operations.

#### **Conclusion and Recommendations**

It seems that there is no other solution at this point during the pandemic and the normalization process other than following the measures and waiting patiently. After this process, it is necessary to conduct studies on the possible economic, social, psychological and performance effects that occur in sports, athletes, coaches, and the sports industry.

In the coming period, solutions for the effects resulting from people in the sports business facing the risk of unemployment should be identified. In general, it is necessary for the athletes and everyone to keep the morale as high as possible in such outbreaks and to keep the psychology of the children high. Our world is going through unusual days to be seen once in a century. When the pandemic ends, a trust should be established in the society in order to continue the interest in sports facilities, and attending sports activities in stadiums.

The uncertainty about how to shape physically safe close-contact workouts continue. Efforts should be made to remove this uncertainty. From the moment of the Covid-19 outbreak, it caused economic and psycho-social disruption until the normalization process started in all countries. The cancellation of sports competitions with crowded masses has been an important decision in protecting public health and reducing the spread of the epidemic.

After the pandemic, it will be useful to determine how many clubs have been closed and to conduct studies and plan for the future. Even those who have survived Covid 19 with slight effects and those who have never been hospitalized should be identified and the training methods to be performed in the next period should be determined again.

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