



Investigation of Anxiety Status in Individual and Team Athletes in Epidemic Diseases

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Abstract

This study aims to contribute to the literature on the situation of athletes in new epidemics that may arise by examining the anxiety of individual and team athletes about catching epidemics in the presence of outbreaks. For this purpose, a total of 480 athlete university students were recruited during the coronavirus epidemic. In this study, the effects of gender and sports habits on anxiety levels regarding the new type of coronavirus epidemic were examined. As a result of the statistical analysis, it was determined that there was a significant relationship between individual anxiety and anxiety about catching coronavirus according to gender ($p < 0.05$). However, there was no significant difference in social anxiety levels according to gender ($p > 0.05$). Additionally, a statistically significant relationship was found between individual anxiety and anxiety about contracting coronavirus, depending on the status of doing team and individual sports ($p < 0.001$). However, there was no significant difference between sports habits in terms of social anxiety levels ($p > 0.05$). Result, It has been determined that the risk of contracting this virus during the coronavirus epidemic among university students who compete in individual and team sports while receiving sports education varies according to gender and team and individual sports but does not vary according to age category. It has also been determined that athletes feel moderate anxiety about contracting the new type of coronavirus. Considering that athletes will be moderately affected by existing epidemic diseases during epidemic periods, it is recommended to take precautions according to the kind of epidemic.

Keywords: Anxiety about catching the virus, athlete, coronavirus, individual anxiety

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INTRODUCTION

The COVID-19 pandemic has made its mark in history with its global spread and the significant losses it caused. This pandemic has led to the loss of millions of lives and put considerable strain on healthcare systems. Although efforts towards vaccination have begun, experts indicate that the complete eradication of the pandemic is not likely to happen anytime soon. First reported in November 2019, the novel coronavirus (COVID-19) has been declared a global health emergency (Stanton et al., 2020). The global COVID-19 pandemic disrupts the sense of security and predictability in individuals and societies, leading to heightened anxiety. Tolerance limits are pushed, giving rise to uncertainty. When added to personal differences such as intolerance to uncertainty, obsession, susceptibility to anxiety, and perfectionism, some individuals have begun to experience this anxiety almost at a panic level.

Moreover, the significant fear of asymptomatic carriers transmitting the virus to others is a primary concern. The anxiety, fear, and distress caused by the pandemic have significantly affected both individuals and sectors, including businesses. These effects are becoming

increasingly prominent in psychological, sociological, and economic dimensions. During the pandemic, the sociological and psychological problems experienced by individuals and societies, along with the economic challenges faced by businesses, have profoundly affected people. This situation further exacerbates the effects of the pandemic (Barua, 2020; İmamoğlu & Doğan, 2020; Uzun et al., 2021; Musa et al., 2023). As mentioned by Çebi et al. (2021), understanding and addressing the pandemic's social, psychological, and economic dimensions are crucial for understanding and resolving the challenges faced by both individuals and businesses. In this context, academic research and expert opinions are of great importance in developing strategies to address the problems caused by the pandemic. In a study conducted, it was observed that the fear of contracting COVID-19 among university students receiving sports education varies according to gender, place of residence, field of study, and sports branch. Despite the positive effects of sports on physical and mental health, the restrictions imposed as a precaution against COVID-19 can cause anxiety among athletes and non-athletes alike. These measures can negatively impact economic and social life, creating a general atmosphere of anxiety in society. Additionally, the widespread implementation of social distancing measures due to the pandemic can have physical and psychological effects, primarily on performance athletes (Tekkurşun et al., 2020; Bıyık and Doğan, 2023; Erail and Uzun, 2023). It is stated that engaging in sports increases self-confidence, improves social relationships, and supports psychological well-being (Demir et al., 2017; Tekkurşun-Demir et al., 2018). However, anxiety is defined as experiencing unpleasant emotional states, worry, and physiological arousal due to various reasons (Han, 2009; Spielberger & Reheiser, 2004). Anxiety involves worrying about the future and experiencing tension, which can be attributed to the discomfort caused by not knowing what one will face (Amal et al., 2020). Concerns related to the COVID-19 pandemic can contribute to an increase in anxiety levels, which can negatively affect performance (Tekkurşun et al., 2020). Additionally, factors such as health concerns, death statistics, and uncertainties about the future associated with the pandemic can contribute to anxiety (Moghanibashi-Mansourieh, 2020). Studies conducted on university students have identified increased anxiety and even fear of death associated with the COVID-19 pandemic (Çebi et al., 2021; Doğan & İmamoğlu, 2022; Gelen et al., 2022). It has been noted that during the pandemic, there have been changes in quality of life and anxiety levels and a decrease in patience among people (Yazıcı & İmamoğlu, 2021; Doğan & İmamoğlu, 2020; Ermiş & İmamoğlu, 2020). Studies have also highlighted the impact of the pandemic on life satisfaction, psychological

well-being, and perceived stress among university students (Ermiş et al., 2022; Sekban & İmamoğlu, 2021).

METHOD

Research group (population-sample)

The research was conducted with athletes actively involved in sports and studying at the Faculty of Sports Sciences at Ondokuz Mayıs University in Samsun province, per the 2021 education curriculum. The athletes were divided into individual and team sports categories, with 480 licensed athletes in the study. The study evaluated surveys completed by 480 students, consisting of 320 males and 160 females, studying at the sports faculty. Among them, 226 preferred team sports, while 249 stated that they were more interested in individual sports. For data collection, a voluntary participation form, a research data introduction form, and the Fear of Contracting the Novel Coronavirus (COVID-19) Scale for athletes were used.

Data collection tools

The data was collected via an online survey tool. Prior to the research, participants were provided with necessary explanations, and it was clarified that participation was voluntary. Informed consent was obtained from the participants electronically. Participants were reached between January 30, 2021, and February 25, 2021. The data of participants engaged in individual and team sports were evaluated in the research.

Athletes' Anxiety Scale of Catching the New Type of Coronavirus (Covid-19): This scale aims to measure athletes' fear of contracting Covid-19. The scale comprises two sub-dimensions: Individual Anxiety (IA) and Socialization Anxiety (SA). The first 11 items represent IA, while items 12, 13, 14, 15, and 16 represent SA. IA refers to the emergence of anxiety and apprehension in the face of a frightening situation. On the other hand, SA represents the anxiety of socializing in frightening situations and avoiding social environments. The lowest score from the IA factor is 11, and the highest is 55. The SA factor consists of 5 items, with the lowest score being five and the highest score being 25. An increase in anxiety levels increases the risk of adverse effects on psychological health. In evaluations based on the scale's total score, the lowest score is determined as 16 and the highest score as 80. The scale is in a five-point Likert format, with items rated as "Strongly Disagree," "Disagree," "Neutral," "Agree," and "Strongly Agree." Reverse coding should be applied to items with values of 5, 4, 3, 2, and 1, except for item 2, which contains negative phrasing (Demir et al., 2020).

Data analysis

SPSS 25.00 software package was used for statistical analysis. The Kolmogorov-Smirnov test was conducted to assess the normal distribution of the data, and it was determined that the data showed a normal distribution. Independent t-test and one-way analysis of variance (ANOVA) were used for statistical analysis.

Ethics committee decision

Research permission was received for this study from the Ondokuz Mayıs University Social and Humanities Research Ethics Committee Decisions Board, Decision Date: 31.12.2021, Number of Meetings: 12 Number of Decisions: 2021-1090.

FINDINGS

The findings of the study are given in the table below.

Table 1. Individual and social anxiety status about contracting the coronavirus by gender

	Gender	n	\bar{X}	S.d	t	p
Individual anxiety	Male	320	33.67	7.61	2.47	0.030*
	Female	160	31.63	9.67		
Social anxiety	Male	320	15.28	3.89	1.49	0.560
	Female	160	14.68	4.15		
Total score	Male	320	48.95	9.65	2.53	0.037*
	Female	160	46.31	12.60		

*= $p < 0.05$

A statistically significant difference was found between the total scale scores of individual anxiety and anxiety about contracting the new type of coronavirus according to gender ($p < 0.05$). Social anxiety scores according to gender did not show a statistically significant difference ($p > 0.05$).

Table 2. Individual and social anxiety status according to team and individual sports participation

		n	\bar{X}	S.d	t	p
Individual anxiety	Team sports	230	31.36	9.30	-4.16	0.001**
	Individual sport	250	34.48	7.19		
Social anxiety	Team sports	230	14.87	4.09	-1.13	0.560
	Individual sport	250	15.27	3.88		
Total score	Team sports	230	46.23	11.97	-3.68	0.001**
	Individual sport	250	49.76	9.29		

**= $p < 0.001$

A statistically significant difference was found between the total scale scores of individual anxiety and anxiety about contracting the new type of coronavirus according to the status of doing team and individual sports ($p < 0.001$).

Table 3. Individual and social anxiety status by age category

	Age	n	\bar{X}	S.d	F	p
Individual anxiety	17-19	113	33.08	8.70	0.61	0.970
	20-24	300	32.74	8.41		
	25-30	67	34.07	7.76		
	Total	480	33.00	8.39		
Social anxiety	17-19	113	15.39	3.68	0.66	0.962
	20-24	300	14.92	4.03		
	25-30	67	15.31	4.32		
	Total	480	15.08	3.98		
Total score	17-19	113	48.47	10.54	0.70	0.973
	20-24	300	47.66	10.89		
	25-30	67	49.38	10.69		
	Total	480	48.08	10.77		

There was no statistically significant difference between the total scale scores of individual anxiety, social anxiety and anxiety about contracting the new type of coronavirus according to age category ($p>0.05$).

Table 4. Percentage values of the scores obtained from the scale

	Gender	Score received	Scale Lowest-highest score	% value of the score obtained compared to the highest score
Individual anxiety	Male	33.67	11-55	61.22
	Female	31.63	11-55	57.51
Social anxiety	Male	15.28	5-25	61.12
	Female	14.68	5-25	58.72
Total score	Male	48.95	16-80	61.19
	Female	46.31	16-80	57.89

Table 4 shows the percentage values of the scores obtained from the scale according to the highest score according to gender.

DISCUSSION AND CONCLUSION

In a study conducted by Batu and Aydın (2020), a significant difference was found in the "Individual Anxiety" sub-dimension according to gender, while no significant difference was observed in the Social Anxiety dimension. It was interpreted that female athletes experience more individual anxiety and have higher anxiety about contracting the novel coronavirus. Many studies on athletes have reported that female athletes have higher levels of anxiety compared to males (Amen, 2008; Arseven, 1992). In a study by Sakaoğlu et al. (2020), a statistically significant difference was found in anxiety scores between females and males. Similarly, in the study by Gümüştül et al. (2020), although no statistically significant difference was found in individual anxiety based on gender, a significant difference was found in the social anxiety sub-

dimension. Namlı (2020) found no statistically significant difference in individual anxiety, social anxiety, and total scale scores based on the sports branch. Şahinler and Ulukan (2020) stated that athletes' anxiety levels were slightly above the moderate level. In the study by Gümüştül et al. (2020), although no statistically significant difference was found in the socialization variable among amateur and professional athletes, a significant difference was found in the individual anxiety sub-dimension. In their research, Çölgeçen and Çölgeçen (2020) indicated that the scores of female participants for situational and continuous anxiety were higher than those of male participants. In the study by Memiş-Doğan and Düzel (2020), it was found that male participants had higher anxiety levels compared to female participants. Namlı (2020) determined that female participants had statistically higher levels of individual anxiety and anxiety scale total scores compared to males based on gender. According to the results of this study, there was a statistically significant difference between individual anxiety and anxiety about contracting the novel coronavirus total scale scores based on the status of participating in team and individual sports ($p < 0.001$). However, no significant difference was found in social anxiety scores based on the status of participating in team and individual sports ($p > 0.05$). The similarity in team and individual social anxiety in this study can be explained by the similarity in sports education among the students. In the study by Batu and Aydın (2020), differences were found in individual anxiety and social anxiety sub-dimensions and general total scores according to the ages of swimming athletes. Şahinler and Ulukan (2020) found significant differences in anxiety scores of athletes according to age. In the study by Çiftçi et al. (2020), no difference was observed in Covid-19 fear scores based on participants' ages during the pandemic. In the study by Gümüştül et al. (2020), no significant difference was found in fear of the novel coronavirus scores based on age. In this study, there was no statistically significant difference in individual anxiety, social anxiety, and anxiety about contracting the novel coronavirus total scale scores based on age categories ($p > 0.05$). One of the reasons for similar results may be the proximity of the subjects' ages and their status as students.

In the study by Çiftçi and Demir (2020), it was stated that the fear of Covid-19 and perceived stress levels of professional football players playing in the Turkish leagues were moderate and that the players were not significantly affected by this process. When the scores obtained from the scale in this study were evaluated as a percentage of the highest possible score, it was observed that the student's anxiety, social anxiety, and coronavirus-19-19 anxiety scores were closer to the highest score. Therefore, the anxiety levels of the students are above

the moderate level. Prolonged fear and anxiety state can also lead to physical complaints such as difficulty breathing, fatigue, and palpitations (Gelen et al., 2022). In addition to participating in training and competitions while adhering to mask-distance-cleanliness rules, it may be beneficial for athletes to maintain their relationships through all kinds of social media and create a chat environment with video chat programs. If most of the day is spent thinking and worrying about the Coronavirus 19, measures should be taken to reduce this. Avoiding excessive training can also be considered as a measure, especially for athletes with high anxiety. Student-athletes should know that not being afraid and not worrying at all is not a realistic thought. Avoiding conversations and individuals that lead them to panic can also be considered as a precaution.

While the anxiety about contracting the coronavirus varies according to gender, team, and individual sports participation status among university students receiving sports education, it was determined that it did not change according to age category. In addition, it was found that athletes feel anxiety about contracting the new type of coronavirus at a moderate level. Considering that athletes will be moderately affected by existing pandemic diseases during pandemic periods, measures should be taken according to the type of pandemic.

Recommendations

It was observed that athletes had a moderate level of concern about contracting the new type of coronavirus. Considering that athletes will be moderately affected by current pandemic diseases during pandemic periods, measures should be taken according to the type of pandemic.

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