

# Investigation of Physical Education and Sports School Students' Anxiety to Catch COVID-19

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## Abstract

This research was carried out to examine the anxiety to catch COVID-19 of students studying at School of Physical Education and Sports. The sample of the study consists of 209 students, 98 male and 111 female, studying at the School of Physical Education and Sports at Kilis 7 Aralık University. "Personal Information Form" and "Anxiety to Catch COVID-19 Scale" developed by Tekkurşun et al. (2020) were used as data collection tools. The data obtained in the research were analyzed using the IBM SPSS 25.0 program. As a statistical method in the analysis of the data, frequency analysis was used to determine the percentage distribution of personal information. T-Test and ANOVA test were used for independent groups, and the level of significance was considered as  $p < 0.05$ . According to the findings, it was observed that there was a statistically significant difference in favor of women in the individual anxiety sub-dimension in terms of the anxiety to catch COVID-19 based on the gender variable of the students ( $p < 0.05$ ). There was no significant difference found in terms of the variables of the department they study, whether they do sports, their chronic disease conditions, and their grade levels ( $p > 0.05$ ).

As a result, it has been determined that while the anxiety to catch COVID-19 of the students studying at the Physical Education and Sports School is significantly higher in women, there is no significant difference in terms of the variables of the department they study, their chronic disease conditions, whether they do sports, and their grade levels.

**Keywords:** COVID-19, Anxiety, Sports, Physical education and sports school

## 1. Introduction

The recently emerged SARS-COV2 was considered as a local epidemic. The COVID-19 pandemic, which emerged in Wuhan, the capital of the Hubei region of China at the end of 2019, has increased people's anxiety levels incredibly, causing the future anxiety to be

experienced at the highest level. With the rapid spread of the pandemic, the changes have occurred in many areas such as the usual lifestyle, business life, education, travel, vacation and shopping (Ceviz et al., 2020). COVID-19, which has spread in our country as well as the whole world and has caused a pandemic worldwide, challenges psychological resilience and is pushing the limits of people psychologically with the emerging developments that cause worry and anxiety in the career process of university students, where the young population is dense. The pandemic, along with psychological pressure, caused the level of anxiety and worry to reach the highest level due to momentary, negative and unexpected reasons (Kasapoğlu, 2020).

During the pandemic period, although many governments, institutions, organizations and individuals around the world were uncertain about how to proceed and tried to determine a more effective way to combat the pandemic, it was thought that the difficulties experienced would continue. The pandemic spreading around the world has had an impact on all sports branches. It has caused the cancellation of competitions and tournaments in the Olympic and professional branches, and as a result, countries and sports clubs have experienced financial income losses, and the audience has been disappointed (Garcia-Garcia et al., 2020). The COVID-19 epidemic, which originated in China, spread to the world. Reports were presented widely through mass media. Due to the events experienced, the level of anxiety in people increases, and as a result, the level of worry increases as well. Due to the pandemic, people's stress levels increase and anxiety arises in response to these stress levels (Roy et al., 2020). COVID-19 is the first pandemic to emerge from the coronavirus family and cause an epidemic. Coronaviruses and has spread very quickly to all continents and hundreds of countries around the world. At the beginning of 2020, the World Health Organization named COVID-19 disease, which means a new type of coronavirus disease, as severe acute respiratory syndrome (WHO, 2020). The COVID-19 pandemic has caused unprecedented mental and economic difficulties around the world. Fear of infection, uncertainty, future anxiety, and unhappiness have led to intense fears. Unlike events that are experienced and overcome alone most of the time, it has had long-term individual and social effects (Alcorn et al., 2010).

According to the Turkish Language Association (2020), anxiety is defined as distress, worry, sadness, and sorrow. Anxiety includes the behavioral responses of the organism to develop a defense mechanism and create a strategy to cope with a danger (Bortolato & Piomelli, 2008). To make a general definition, anxiety can be defined as the individual's reactions to real and imaginary threats. While it emerges as a state of uneasiness and fear experienced by the person, the degree of anxiety occurs depending on the intensity of stress (Altıntaş, 2014). Anxiety is seen as trait and state anxiety. While trait anxiety is caused by one's own characteristics, state anxiety refers to the current state of anxiety that a person feels in the face of an event (Kapıkıran, 2002). According to Kennedy (2010), being anxious at an optimal level is the state of being healthy. However, excessive anxiety indicates a state of being unhealthy.

Anxiety is experienced when the source of the threat is not understood, how it arises is unknown, and people have little knowledge of the onset and ending of the stress situation

they face with. It has been stated that there are many psychosocial factors including the tendency and methods of coping with unknown events that the threats posed by pandemics will increase anxiety (Taha et al., 2013). According to Karagüven (1999), the factors that cause anxiety differ from person to person. While some of the reasons that cause anxiety in people arise from the situations they encounter in the working environment, some of them can be caused by personal factors. While the occurrence of anxiety is not directly caused by events, it is, on the contrary, a result of unrealistic rituals that the individual has and it occurs when the individual feels himself/herself unsuccessful as a consequence of encountering self-threatening elements in an environment (Karataş et al., 2014). Severe anxiety, which affects millions of people around the world, is among the prominent features of fear-oriented anxiety disorders (Myers & Davis, 2008). The economic problems experienced throughout the world cause an increase in unemployment rates, and naturally, the anxiety levels of university students increase after graduation. The youth unemployment rates of the countries also significantly increase the anxiety level of the young population. The fact that students enter the field of employment for the first time triggers economic, social and psychological problems and causes the level of anxiety of students to increase (Küçük Yılmaz, 2019).

The emergence of the COVID-19 global pandemic has led to practices that restrict active social interactions, such as the closure of gyms and schools. In this study, it is aimed to examine the restrictions applied, the COVID-19 process, the concerns of Physical Education and Sports School Students catching COVID-19. The recent experience of a difficult situation like the COVID-19 pandemic makes it important to examine the anxiety to catch COVID-19 of the students of School of Physical Education and Sports.

## **2. Method**

In the study, quantitative data were collected using the data collection tools described below. The data collected from the students were analyzed based on the personal characteristics of the students and other variables discussed in the research. In the study, it was aimed to examine the anxiety to catch COVID-19 of the students in terms of variables such as gender, department of education, chronic disease condition, whether they do sports, and their grade level.

### *2.1 Universe and Sample*

The universe and sample of the research consist of the students, who are studying in the 2021-2022 academic year, at the Department of Teaching and Coaching at Kilis 7 Aralık University, School of Physical Education and Sports.

Social distancing is important due to the COVID-19 pandemic. In this context, the main purpose of this research is to examine the anxiety levels of the Physical Education and Sports School students who continue their education face-to-face and do sports in the conditions of the pandemic.

## *2.2 Data Collection Tool*

### *2.2.1 Personal Information Form*

In the personal information form created by the researchers in order to collect information about the independent variables of the study, there are questions about the gender of the students, the departments they study, their grade levels, whether they have a chronic disease and whether they actively do sports.

### *2.2.2 Anxiety to Catch COVID-19 Scale*

The scale, which was developed to determine the anxiety levels to catch COVID-19, consists of 16 items and 2 sub-dimensions. The scale is in the five-point Likert type. The items of the scale are rated as 1, 2, 3, 4, and 5. Only the 2nd item of the scale includes negative statements. The lowest score that can be obtained from the Individual Anxiety factor consisting of the first 11 items is 11, and the highest score is 55. The lowest score that can be obtained from the Socialization Anxiety factor including the last 5 items is 5, and the highest score is 25. The Cronbach Alpha coefficient calculated for the whole scale was .933, the Cronbach Alpha coefficient calculated for the “Individual Anxiety” sub-dimension was .823 and the Cronbach alpha coefficient calculated for the “Socialization Anxiety” sub-dimension was .802 (Tekkurşun et al. 2020).

## *2.3 Data Analysis*

The data obtained in the research were analyzed using the IBM SPSS 22.0 program. Frequency analysis was used to determine the percentage distribution of personal information. Shapiro-Wilk test of normality was used to determine whether the data showed a normal distribution. Before evaluating the scale scores according to demographic information and looking at the relationship between the scales, reliability analysis was performed. While the Independent T-Test was used to analyze the two-category variables, the One Way ANOVA analysis was used to compare the scale scores according to demographic variables with more than two categories, and the level of significance was determined as  $p < 0.05$  in the analyzes used.

### 3. Findings

Table 1. Frequency and percentage distributions of participants' demographic information

Variable	Sub-variable	f	%
<b>Gender</b>	Female	111	53.1
	Male	98	46.9
<b>Department</b>	Teaching	38	18.2
	Coaching	171	81.8
<b>Chronic Disease Condition</b>	Yes	8	03.8
	No	201	96.2
<b>Actively Doing Sports</b>	Yes	93	44.5
	No	116	55.5
<b>Grade Level</b>	1 <sup>st</sup> Grade	77	36.8
	2 <sup>nd</sup> Grade	29	13.9
	3 <sup>rd</sup> Grade	49	23.4
	4 <sup>th</sup> Grade	54	25.8

*Note.* When the table is examined, 111 (53.01%) of the 209 students participating in the research are female and 98 (46.09%) are male. According to the department variable of the participants, the teaching department was 38 (18.02%) and the coaching department was 171 (81.08%). While 201 (96.02%) of the participants stated that they did not have a chronic disease, it was seen that 116 (55.05%) of the participants did not actively do sports. It was seen that 77 (36.8 %) of the participants were 1<sup>st</sup> Grade students, 29 (13.9%) were 2<sup>nd</sup> Grade students, 49 (23.4%) were 3<sup>rd</sup> Grade students, and 54 (25.8%) were 4<sup>th</sup> Grade students.

Table 2. Independent T-Test analysis of anxiety to catch COVID-19 scale scores in terms of the variable of gender

Variable	Groups	N	$\bar{x}$	SD	T-Test	
					t	p
<b>Individual Anxiety</b>	Female	111	36.45	9.310	2.056	0.041
	Male	98	33.80	9.247		
<b>Socialization Anxiety</b>	Female	111	12.78	5.147	-0.447	0.065
	Male	98	13.12	5.735		

A statistically significant difference was found between the individual anxiety sub-dimension, which is one of the sub-dimensions of the participants' anxiety to catch COVID-19, and their gender ( $p < 0.05$ ).

Table 3. Independent T-Test analysis of anxiety to catch COVID-19 scale scores in terms of the variable of department of education

Variable	Groups	N	$\bar{x}$	SD	T-Test	
					t	p
Individual Anxiety	Teaching	38	36.94	8.708	1.337	0.186
	Coaching	171	34.82	9.470		
Socialization Anxiety	Teaching	38	12.78	5.638	-0.187	0.853
	Coaching	171	12.97	5.387		

There was no statistically significant difference found between the participants' department of education and the anxiety to catch COVID-19 ( $p > 0.05$ ).

Table 4. Independent T-Test analysis of anxiety to catch COVID-19 scale scores in terms of the variable of chronic diseases

Variable	Groups	N	$\bar{x}$	SD	T-Test	
					t	p
Individual Anxiety	Yes	8	30.75	9.192	-1.399	0.201
	No	201	35.38	9.337		
Socialization Anxiety	Yes	8	10.62	5.553	-1.205	0.265
	No	201	13.03	5.408		

There was no statistically significant difference between the participants' chronic disease condition and the sub-dimensions of anxiety to catch COVID-19 ( $p > 0.05$ ).

Table 5. Independent T-Test analysis of anxiety to catch COVID-19 scale scores in terms of the variable of doing sports

Variable	Groups	N	$\bar{x}$	SD	T-Test	
					t	p
Individual Anxiety	Yes	93	35.16	9.887	-0.067	0.946
	No	116	35.25	8.944		
Socialization Anxiety	Yes	93	13.24	5.193	0.733	0.464
	No	116	12.69	5.606		

No statistically significant difference was found between the participants' doing sports and the sub-dimensions of the anxiety to catch COVID-19 ( $p > 0.05$ ).

Table 6. One-Way Analysis of Variance (ANOVA) results of anxiety to catch COVID-19 scale scores in terms of the variable of grade level

Variable	Groups	N	$\bar{x}$	SD	F	p
Individual Anxiety	1 <sup>st</sup> Grade	77	34.870	10.320	0.459	0.711
	2 <sup>nd</sup> Grade	29	35.448	9.097		
	3 <sup>rd</sup> Grade	49	34.326	8.042		
	4 <sup>th</sup> Grade	54	36.370	9.272		
Socialization Anxiety	1 <sup>st</sup> Grade	77	13.467	5.741	1.525	0.209
	2 <sup>nd</sup> Grade	29	12.758	4.256		
	3 <sup>rd</sup> Grade	49	11.571	5.326		
	4 <sup>th</sup> Grade	54	13.537	13.537		

There was no statistically significant difference between the participants' grade level and the sub-dimensions of the anxiety to catch COVID-19 ( $p > 0.05$ ).

#### 4. Discussion and Conclusion

The anxiety to catch COVID-19 of students participating in our research were examined according to their gender, department of education, their chronic disease condition, whether they do sports and their grade level. 111 (53.01%) of the students participating in our study were female and 98 (46.09%) were male, which shows a close distribution in terms of gender variable. While 18.02% of the students study in teaching department, the majority of them

with 81.08% study in coaching department. It was determined that 96.02% of them did not have a chronic disease and 55.05% of them did sports actively.

When we analyzed the sub-dimensions of the participants' anxiety to catch COVID-19 according to the gender variable, a statistically significant difference was found in favor of women in the individual anxiety sub-dimension ( $p < 0.05$ ). When the results of the study conducted to examine the variables affecting the anxiety levels of university students during the COVID-19 pandemic are examined in terms of gender, it is seen that female individuals are more anxious than male individuals (Ceviz et al., 2020). As a result of the study, a significant difference was found in favor of women in the mindfulness scores of disabled athlete trainers and sports trainers according to gender (Gür & Alataş, 2022). In a survey conducted with 1633 teachers in Spain, it was reported that anxiety and stress were higher in female teachers than male teachers (Santamaria, 2021). Sakaoğlu et al. (2020), in their study on the level of anxiety at the time of the COVID-19 pandemic, stated that there was a statistically significant difference in the gender-referenced anxiety score average in women when it is compared to men.

There was no statistically significant difference between the sub-dimensions of the participants' department of education and the anxiety to catch COVID-19 ( $p > 0.05$ ). As a result of the study conducted by Santamaria (2021), there was no statistically significant difference found between the anxiety, fear and quality of life scores to catch COVID-19 according to the "Educational Status" variable. Türktemiz et al. (2020) states that there is no statistically significant difference found when the data on the athletes' anxiety to catch the new type of coronavirus (COVID-19) and the individual anxiety and socialization anxiety sub-dimension were analyzed according to the educational status. According to the findings of their study, Sevindik et al. (2014) did not find any significant relationship between the educational status and the anxiety level. Aynacı (2018), in her study with people who applied to family counseling centers, did not find a significant difference between their educational status and anxiety levels.

There was no statistically significant difference between the participants' chronic disease condition and the sub-dimensions of anxiety to catch COVID-19 ( $p > 0.05$ ). Higgins et al. (2021), in their study, found that 87.4% of the participants in the study had a chronic disease and those with chronic diseases had a high level of anxiety to catch COVID-19. Karahan and Hamarta (2019) revealed that those with at least 3 chronic diseases had high levels of anxiety. Kasar et al. (2016), according to the results of their study, predicted that the presence of chronic diseases in the participants will not always increase the level of anxiety.

There was no statistically significant difference between the participants' doing sports and the sub-dimensions of the anxiety to catch COVID-19 ( $p > 0.05$ ). In their study, Atasoy et al. (2018) did not find a statistically significant relationship between the stress variable and the experiences of the students studying in the physical education department in the sports branch they are active in and their sports year. There was no statistically significant difference between the participants' grade level and the sub-dimensions of the anxiety to catch COVID-19 ( $p > 0.05$ ). While the anxiety to catch COVID-19 of the students studying at



School of Physical Education and Sports is significantly higher in women, it has been determined that there is no significant difference in terms of the variables of the department they study in, their chronic disease condition, whether they do sports, and their grade level.

Since this study was conducted under conditions where the pandemic was under control, pandemic conditions were better, most of the pandemic restrictions were lifted, and transition from the distance education to the face-to-face education was completed, no significant difference was found for the anxiety to catch COVID-19 in terms of the variables we examined in our study. Anxiety levels after the COVID-19 pandemic could be examined with a larger sample group.

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