Determination of Coronavirus Anxiety Status of University Students

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Abstract

Purpose: The aim of this study is to examine the thoughts of the students of the faculty of sports sciences, who are educated with the distance education system due to the COVID-19 epidemic and still continue some of their lessons online and some face-to-face, regarding coronavirus anxiety status.

Method: The sample of the study consists of 242 students, 151 male and 91 female, who continue their education at Trabzon University Faculty of Sport Sciences in the 2021-2022 academic year and participate voluntarily. Within the scope of this research, the "Coronavirus Anxiety Scale" with 5 items and a single sub-dimension was used. The data obtained from the analysis of the data were analyzed with the help of the SPSS program as a quantitative method. In the analysis of the data, the result of the Kolmogorov-Smirnov test, which is one of the normality analysis servers, was checked, and it was determined that the data were not normally distributed. Depending on this result, Mann Whitney U test was used for pairwise comparisons and Kruskal Wallis H test was used for multiple comparisons.

Results and Conclusion: The coronavirus anxiety status scores of university students studying at the faculty of sports sciences differ statistically according to gender, age, class level, academic achievement level and economic income (p<0.05). According to the results obtained from these findings, it was determined that the coronavirus anxiety status of university students increased within the framework of all independent variables.

Keywords: Student, Covid-19, Anxiety

Introduction

The Covid-19 19 pandemic, which first appeared in Wuhan, China, in December 2019, has been affected by the whole world since February 2020, has continued to have an effect on the process in which this research was planned. The COVID-19 pandemic has caused a worldwide crisis in education, as well as from health to economy to sports to social living areas.

In this process, which has confined the whole world to its home, the activities of almost all educational institutions in the world have been interrupted. In order to control the pandemic in the world, many countries have had to temporarily suspend education in schools and universities (WHO, 2020a). The coronavirus, which is defined as a global epidemic (pandemic) by the World Health Organization, has alarmed the whole society due to its rapid spread all over the world and affecting human life (WHO, 2020b; Wang, Ng, & Brook, 2020). Nearly 1.5 billion students and approximately 63 million teachers in 165 countries around the world have been severely affected by the pandemic by interrupting face-to-face education (UNESCO, 2020). The closure of schools due to Covid has also affected many educational processes. In addition, it causes negative consequences such as the formation of anxiety and anxiety in individuals in the society and the presence of irregular education practices (Daniel, 2020). For this reason, the need to manage the crisis created by an indefinite and unpredictable epidemic in every field, especially in education, has emerged in the world (UNESCO, 2020).

As schools closed, all countries have started to seek immediate solutions to ensure that students can continue their education activities. When the spread rate and transmission of COVID-19 is taken into account, distance education has been an effective way for people to continue their education without endangering their health (Emin, 2020). During the pandemic process, many countries in the world have started to perform emergency measures that are enabled by digital technologies and have tried to ensure continued education (Angoletto & Queiroz, 2020). With the first case in Turkey, education was suspended for three weeks as of March 16, 2020 at the Higher Education level (Higher Education Council, 2020a). However, since the rapid epidemic spread, the increase in cases and it was not foreseen when the epidemic process would end, it was decided to continue the rest of the term with distance education (Higher Education Council, 2020b). It is thought that the Covid-19 outbreak has caused serious damage to all components of education and that there may be many negative situations that may arise at the end of this epidemic (Tanhan, 2020).

This virus, which originated from China, has spread all over the world due to the lack of necessary strict measures required in the process. For this reason, coronavirus has become the most important agenda item of the whole world. The press and media organs in the countries have presented the number of cases that exist every day and the related deaths comprehensively through the mass media. Depending on these developments, the level of anxiety in people

increases and in this case their stress level evenly raises. When the pandemic increases stress, anxiety arises in response to this stress situation (Roy et al., 2020). The Covid-19 process has affected the entire society in this way. Many governments, institutions, organizations and individuals around the world are implementing more effective strategies, but it has been evaluated that the applications are not very effective and difficulties may continue in the advanced stages. The pandemic, which has spread globally, has caused the processes in many areas from health to economy, from sports to education to be reconsidered and carried out in the most effective way. At the same time, the pandemic process has affected many points of society, changing the standards of daily life with the compulsory quarantine practices imposed on people, causing people to feel intense anxiety towards themselves, their families and their environment. In connection with this process, in some studies, the negative psychological effects of isolation during quarantine have been evaluated (Brooks et al., 2020) and post-traumatic stress symptoms; confusion, anger, emotional discomfort, depression, stress, negative mood, irritability, insomnia, anxiety, and irritability have emerged as states (Kluge, 2020).

The economic, social and psychological problems that the Coronavirus epidemic has brought about in humans have led people to be more interested in this process. This situation is considered to be important in terms of revealing how it affects the anxiety levels of university students who are receiving education at the university level and especially having practical training in the field of sports sciences. In this context, the study aims to determine the coronavirus anxiety status of the students of the faculty of sports sciences due to the COVID-19 pandemic.

Materials and Methods
Research Group
The universe of the study consists of the students in the Faculty of Sports Sciences of Trabzon University who are studying at Trabzon University Faculty of Sports Sciences in the spring semester of the 2021-2022 academic year, taking into account the accessibility factor, and who are receiving both online education and face-to-face education due to the COVID-19 pandemic. The sampling was selected by simple random sampling method because each individual in the research group who is voluntarily agreed to participate in this study has an equal chance of being selected, eliminates the environment that may create a bias factor in the analysis process and has the ability to represent the universe more accurately (Yıldırım and Şimşek, 2016).

Data Collection Tool
In the scope of the research, the participants' "Personal Information Form" was prepared to obtain information regarding the conditions of coronavirus anxiety and included the independent variables such as gender, age, class, academic success level and the family's economic income level.

On the other hand, a five itemized Coronavirus anxiety Scale developed by Lee (2020), which has been validated by Akkuzu and his friends (2020) was used. The Coronavirus anxiety Scale is a 5-point likert scale, listed as "never happened", "rare", "less than one or two days", "more than a few days", "more than 7 days", "almost every day in the last 2 weeks". The points of the Koronavirus anxiety Scale are ranked between 0-4. The scale does not contain opposing material, and it has a single-factor structure. The high score from the scale indicates high anxiety in individuals.

Data Analysis
Due to the quantitative structure of the preferred measuring tool within the scope of the research, the analysis process is provided by the SPSS 26.0 package program, one of the preferred analysis programs in the process of identifying the relationship between variables in statistical size. At the beginning of the analysis procedures, it was first determined whether the data were distributed normally or not. In the analysis of the data, depending on the fact that the working group is larger than 50, the result of the Kolmogorov-Smirnov test, one of the normality analysis servers, was examined and it was determined that the data were not distributed normally. Depending on this result, Mann Whitney U test was used for pairwise comparisons and Kruskal Wallis H test was used for multiple comparisons. The data of the test, which was carried out to determine whether the data obtained from the sample group within the scope of the research, show normal distribution or not, are given in Table 1.

Table 1. Normality Test Results (Kolmogorov-Smirnov Value)

	Statistics	sd.	p
Coronavirus Anxiety Scale Total Score	,254	242	,000

When the table was examined, it was determined that the data were not distributed normally because the total score of the Coronavirus Anxiety Scale was less than .05 ($p<0.05$) Therefore, gender and academic achievement status variables from independent variables were analyzed with Mann Whitney U test, while age, class and economic income level variables were analyzed by Kruskal Wallis H test.

Results
The data obtained from the measurement tool used to determine the Coronavirus anxiety levels of the students

studying at the Faculty of Sports Sciences according to some variables were evaluated according to gender variable, age variable, grade level variable, academic achievement status variable and economic income status variables.

The Effect of the Gender Variable on Coronavirus Anxiety Level
The results of the Mann Whitney U test analysis conducted for the effect of the gender variable (independent) on the Coronavirus anxiety level (dependent) of university students are given in Table 2.

Table 2. The Effect of Gender Variable on Coronavirus Anxiety Level (Mann-Whitney U Test)

Variable	Gender	n	Mean Rank	Sum of Ranks	U	p
Coronavirus Anxiety Level	Women	91	147,43	13416,00		
	Men	151	105,87	15987,00	4511,000	**,000**
	Total	242				

When Table 2 is examined, it can be seen that the gender variable, which is considered as an independent variable within the scope of the research, makes a significant difference in favor of women on the Coronavirus anxiety status of the students (p<.05). In this context, it can be said that women, whose general anxiety states are higher than men, also have high anxiety about Coronavirus.

The Effect of the Age Variable on Coronavirus Anxiety Level
The results of the Kruskal Wallis H test analysis conducted for the effect of the age variable (independent) on the Coronavirus anxiety level (dependent) of university students are given in Table 3.

Table 3. *The Effect of the Age Variable on Coronavirus Anxiety Level (Kruskal Wallis H Test)*

Variable	Age	n	Mean Rank	sd	H	p
Coronavirus Anxiety Level	18 years and under	3	136,00			
	19-21 years	139	111,22			
	22-24 years	63	136,34	3	7,912	**,048**
	25 years and older	37	133,68			
	Total	242				

When Table 3 is examined, it can be seen that the age variable, which is considered as an independent variable within the scope of the research, makes a significant difference on the Coronavirus anxiety levels of the students (p<.05). The results of the pairwise comparison made to determine which groups the resulting significant differences and the information on the significance value due to Bonferroni correction are presented in Table 4.

Table 4. *Variable-Based Comparison of the Effect of Age Variable on Coronavirus Anxiety Level*

	Statistic	Standart Error	Standart Statistic	p	Significant Difference
19-21 years/25 years and older	-22,456	12,248	-1,833	,067	
19-21 years/18 years and under	24,781	38,637	,641	,521	
19-21 years/22-24 years	-25,122	10,056	-2,498	**,012**	**22-24 > 19-21**
25 years and older /18 years and under	2,324	39,746	,058	,953	
25 years and older /22-24 years	2,666	13,714	,194	,846	

When Table 4 was examined, it was determined that there was a significant difference between the total scores of the Coronavirus anxiety scale of the students in the 19-21 age range and the total scores of the Coronavirus anxiety scale of the students in the 22-24 age range (p<.05) and this significant difference was in favor of the students in the

22-24 age range. In this context, it can be said that students in the 22-24 age range have higher Coronavirus anxiety levels than students in other age ranges.

The Effect of the Class Variable on Coronavirus Anxiety Level

The results of the Kruskal Wallis H test analysis conducted for the effect of the class variable (independent) on the Coronavirus anxiety level (dependent) of university students are given in Table 5.

Table 5. *The Effect of the Class Variable on Coronavirus Anxiety Level (Kruskal Wallis H Test)*

Variable	Class	n	Mean Rank	sd	H	p
Coronavirus Anxiety Level	First class	107	113,35			
	Second class	71	144,02			
	Third class	25	119,78	3	12,587	**,006**
	Fourth class	39	103,97			
	Total	242				

When Table 5 is examined, it can be seen that the class variable, which is considered as an independent variable within the scope of the research, makes a significant difference on the Coronavirus anxiety levels of the students (p<.05). The results of the pairwise comparison to determine between which groups the resulting significant difference was and the information on the significance value due to Bonferroni correction are presented in Table 6.

Table 6. *Variable-Based Comparison of the Effect of Class Variable on Coronavirus Anxiety Level*

	Statistic	Standart Error	Standart Statistic	p	Significant Difference
4th-1st class	9,371	12,385	,757	,449	
4th-3rd class	15,806	16,963	,932	,351	
4th-2nd class	40,047	13,197	3,035	**,002**	4th class > 1st class
1st-3rd class	-6,434	14,708	-,437	,662	
1st-2nd class	-30,675	10,135	-3,027	**,002**	2nd class > 1st class
3rd-2nd class	24,241	15,398	1,574	,115	

When Table 6 was examined, it was found that there was a significant difference between the total scores of the Coronavirus anxiety scale of the students in the 4th grade and the total scores of the Coronavirus anxiety scale of the students in the 2nd grade (p<.05) and that this significant difference was in favor of the students in the 4th grade. Similarly, it was seen that there was a significant difference between the total scores of the Coronavirus anxiety scale of the students in the 1st grade and the total scores of the Coronavirus anxiety scale of the students in the 2nd grade (p<.05) and this significant difference was in favor of the students in the 2nd grade. In this context, it can be said that the students who have reached the graduation stage are more anxious than the first-year students who have just started education and training, and this may be due to their professional preparation. In addition, due to the anxiety situations experienced by the first-year students from the adaptation process to the existing university environment, it may be thought that they are not worried about the coronavirus process.

The Effect of the Academic Achievement Level Variable on Coronavirus Anxiety Level

The results of the Mann Whitney U test analysis conducted for the effect of university students' academic achievement level variable (independent) on the coronavirus anxiety level (dependent) are given in Table 7.

Table 7. *The Effect of Academic Achievement Level Variable on Coronavirus Anxiety Level (Mann Whitney U Test)*

Variable	Academic Achievement	n	Mean Rank	Sum of Ranks	U	p
Coronavirus Anxiety Level	2.00 and under	20	156,30	3126,00		
	2.01 and over	222	118,36	26277,00	1524,000	**,014**
	Total	242				

When Table 7 is examined, it can be seen that the academic achievement level variable, which is considered as an independent variable within the scope of the research, creates a significant difference in favor of 2.00 and below on the Coronavirus anxiety status of the students (p<.05). In this context, it can be said that students with low academic achievement levels also have high anxiety about coronavirus.

The Effect of the Economic Income Level Variable on Coronavirus Anxiety Level

The results of the Kruskal Wallis H test analysis conducted for the effect of the economic income level variable (independent) on the Coronavirus anxiety level (dependent) of university students are given in Table 8.

Table 8. *The Effect of Economic Income Level Variable on Coronavirus Anxiety Level (Kruskal Wallis H Test)*

Variable	Economic Income	n	Mean Rank	sd	H	p
Coronavirus Anxiety Level	3000 TL and under	114	138,48			
	3001- 6000 TL	89	102,16	2	15,356	**,000**
	6001 TL over	39	116,00			
	Total	242				

When Table 8 is examined, it can be seen that the economic income level variable, which is considered as an independent variable within the scope of the research, makes a significant difference on the Coronavirus anxiety levels of the students (p<.05). The results of the pairwise comparison to determine between which groups the resulting significant difference was and the information on the significance value due to Bonferroni correction are presented in Table 9.

Table 9. *Variable-Based Comparison of the Effect of Economic Income Level Variable on Coronavirus Anxiety Level*

	Statistic	Standart Error	Standart Statistic	p	Significant Difference
3001- 6000/6001 and over	-13,837	12,715	-1,088	,276	
3001- 6000/3000 and under	36,315	9,365	3,878	**,000**	**3001-6000>3000 and under**
6001 and over/3000 and under	22,478	12,283	1,830	,067	

When Table 9 was examined, it was determined that there was a significant difference between the total scores of the Coronavirus anxiety scale of the students in the income range of 3001-6000 TL and the total scores of the Coronavirus anxiety scale of the students with an income level of 3000 TL and below (p<.05), and this significant difference was in favor of the students in the range of 3001-6000 TL. In this context, it can be infered from that students living in low economic conditions have higher coronavirus anxiety levels because the general economic conditions are also affected by this process.

Discussion
In this study, which aims to examine the anxiety levels of students in terms of some variables in the process of social isolation-based measures such as curfew, shopping ban and cancellation of many organizations as a result of decisions taken in many areas from education to sports, from art to health due to the Covid-19 pandemic and students were evaluated by taking into account variables such as gender, age, grade level, academic achievement level and economic income status.
It was determined that the Coronavirus anxiety states of university students made a significant difference according to the gender variable and this difference was in favor of women. When the literature on coronavirus anxiety situations is investigated, the studies that are in parallel with the findings obtained from the research (Yıldız and Algün Doğu, 2022; Çölgeçen and Çölgeçen, 2020; Göksu and Kumcağız, 2020; Wang, Pan, Wan, Tan, Xu, Ho, Ho, 2020). On the contrary, studies in the literature reveal that the gender variable does not affect the coronavirus anxiety status (Polatcan and Kaptangil, 2021; Aslan, Cicioğlu and Demir, 2021). When evaluated in the context of these results, it is thought the fact that women's anxiety moods in general are higher than men's may be due to the fact that they occur in a similar way during the coronavirus process.
It has been determined that the coronavirus anxiety levels of university students make a significant difference

according to the age variable, and this difference is in favor of 22-24 years between the ages of 22-24 and 19-21. When the literature on coronavirus anxiety situations is examined, it is found that there are some studies parallel with the findings of this research (Özkan, Kahraman, Arslan, İlik, Hanedanoğlu and Kaplan, 2022; Ceviz, Tektaş, Basmacı and Tektaş, 2020). On the other hand, there are other studies in the literature revealing that the age variable does not affect the coronavirus anxiety status (Polatcan and Kaptangil, 2021; Su, Arslan and Çağ, 2021; Çifçi and Demir, 2020). According to these results, as individuals are getting older their expectations from life begin to increase even more and accordingly, the importance of the preparations they have made may cause anxiety levels to appear.

The Coronavirus anxiety states of university students have a significant difference according to the class variable and this difference is in favor of the 4th class and 2nd class in the 4th class and 1st class range. It was determined that it was in favor of the 2nd class in the range of class to 1st class. When the literature on coronavirus anxiety situations is examined, Polatcan and Kaptangil (2021) couldn't find a significant difference in their evaluations according to the grade level variable of the students in their study. According to these results, it is thought that as the academic learning process begins to progress, it may cause the anxiety of the students to occur in the coronavirus process due to the increase in the future concerns of the individuals.

It was determined that the coronavirus anxiety levels of university students made a significant difference according to the academic achievement level variable and this difference was in favor of the academic achievement level of 2.00 and below. When we look at the coronavirus anxiety levels, we can say that the anxiety of failing affects them academically, because the students with low academic success levels do not know what happens to the situations they may encounter in this process, and accordingly, their coronavirus anxiety is also affected by this situation. It has been determined that the conditions of the coronavirus anxiety of university students differ significantly according to the economic income level variable and the difference is in favor of the income level of 3001-6000 TL in the income range of 3001-6000 TL to 3000 TL and below. When the literature on coronavirus anxiety situations was examined, studies were found showing that economic conditions in parallel with the findings obtained from the research affected the anxiety status (Yıldız and Algün Doğu, 2022; Kul, Demir and Katmer, 2020; Williams, Armitage, Tampe and Dienes, 2020; Aksu, 2018). It can be said that this may be due to the fact that the economic conditions in almost every sector during the coronavirus process have led people to work under very difficult conditions and part-time working processes, also leading some people to work without even receiving a salary.

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