

MIER Journal of Educational Studies Trends & Practices
May 2022, Vol. 12, No. 1, pp. 1 - 18

DOI: 10.52634/mier/2021/v11/i2/2173

FACTORS AFFECTING THE FEAR LEVELS OF SECONDARY SCHOOL STUDENTS DURING THE COVID-19 PANDEMIC

Cengiz Tuysuz[®], Arzu Meyra Yoruk[®], Suat Turkoguz[®] and Ilker Ugulu[®]

This study aims to determine the factors affecting the fear levels of secondary school students during the COVID-19 pandemic. For this purpose, a parallel design approach was used in the study. The quantitative data were collected using the 'Corona virus Fear Scale'. Results of the study show that the students' fear of corona virus was moderate. Students expressed that the factors which increased their fear levels in percentage terms are: an increase in the number of cases (26.24%), increase in the number of deaths (12.69%), death of family members (2.40%), death of close relatives (1.20%), fear of losing loved ones (0.86%), being COVID positive (6.52%), a family member being COVID positive (5.15%), people in immediate surroundings being COVID positive (5.15%), people's insensitivity (7.20%), people not wearing masks (4.29%) and people not following social distancing (2.40%). To reduce their fears during the COVID-19 pandemic, students stated that they took measures such as staying at home, wearing a mask, paying attention to hygiene, taking precautions, and maintaining social distance.

KEYWORDS: Corona Virus, Education, Students, Anxiety

Cengiz Tuysuz

Associate Professor, Usak University, Turkey.

Email: cengiz.tuysuz@usak.edu.tr. ORCID: https://orcid.org/0000-0002-0366-9434

Arzu Meura Yoruk

Research Scholar, Usak University, Turkey.

Email: arzumeyrayoruk0164@gmail.com. ORCID: https://orcid.org/0000-0003-0913-0568

Suat Turkoguz

Associate Professor, Dokuz Eylul University, Turkey.

Email: suat.turkoguz@deu.edu.tr. ORCID: https://orcid.org/0000-0002-7850-2305

Ilker Ugulu 🖂

Associate Professor, Usak University, Turkey.

Email: ilkerugulu@gmail.com. ORCID: https://orcid.org/0000-0002-6514-6575



This is an open access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Introduction

COVID-19, which can be transmitted by respiratory droplets and cause respiratory tract infection, has become an epidemic by infecting people with behaviour such as coughing or sneezing (World Health Organisation, 2020a). The corona virus (COVID-19) first appeared on December 31, 2019, in the city of Wuhan, Hubei Province of China, and started to spread rapidly by being transmitted from person to person. In the first situation report published on January 21, 2020, it was announced that a total of 282 cases were detected from China, Thailand, Japan and the Republic of Korea, and 6 people died in the city of Wuhan (World Health Organization, 2020b). As of June 15, 2021, it had been determined that over 3 million people died of COVID-19, and more than 177 million people were infected by COVID-19. The corona virus was first seen in Turkey on March 11, 2020. The number of deaths and cases continued to rise despite the various quarantine measures taken (Turkey Ministry of Education, 2020).

In terms of the health sector, no country in the world has the power to fight and cope with the epidemic alone. The number of doctors and nurses, intensive care units and ventilators owned by countries is limited. For this reason, countries have introduced various limitations to prevent the spread of the virus and to fight the epidemic (Ugulu, 2021). Countries initially applied different methods in the fight against corona virus. While England displayed a flexible and relaxed attitude; China has followed a harder and more rigid path. Turkey, on the other hand, has conducted the necessary studies, closely followed the studies in the world and implemented gradual measures that affect social and individual life (Gencer, 2020a). Turkey has asked its citizens to voluntarily quarantine themselves and stay home to reduce infection and protect the chronically ill and the elderly (Satici et al., 2020). To prevent people from coming together, places of worship were closed, entertainment organizations, sports competitions and weddings were cancelled, some days a total curfew was declared, and some days citizens of certain age groups were banned from going out on the streets. A step taken to combat the corona virus in Turkey was the suspension of face-to-face education. Due to the pandemic in Turkey on March 18, 2020, it was decided to suspend education in universities and switch to the distance education system.

Since the onset of the pandemic, it has been easy to adapt to the system of online learning, as many universities' had the necessary infrastructure to cope up with the distance education system (Satici et al., 2020). However, our perspective and comments on the education system have changed due to the COVID-19 pandemic (Ugulu, 2021). In Turkey, under the control of the Ministry of National Education, separate education paths were conducted for each course at every stage of the pandemic, and examples of the application

of distance education in different ways were given. Multiple learning environments were provided by using different teaching techniques and methods and materials (Kocoglu et al., 2020). However, despite the efforts to continue education with distance education systems in Turkey, students have started to stay at home more due to the interruption of face-to-face education.

RATIONALE OF THE STUDY

The spread of the pandemic caused by the corona virus worldwide in a short time, causing many deaths, not having enough information about its treatment and uncertainties have caused anxiety and global threat in people. This has greatly affected the whole world socially, psychologically, and economically (Memis-Dogan & Duzel, 2020). The fear and stress caused by the COVID-19 pandemic has affected children psychologically and has led to changes in their lives. Especially due to the pandemic, the interruption of face-to-face education and the transition to emergency distance education caused the children, who were in difficult situations both physiologically and psychologically, to not be able to socialize and adapt to their environment. Additionally, the ever-increasing number of cases has increased students' fear levels and stress. Additionally, children are afraid of infecting themselves with COVID-19 or infecting their families and loved ones after being infected. For this reason, an attempt was made to determine the fear levels of secondary school students toward COVID-19, the factors that reduce and increase this fear, and the events that affect them the most in this process.

REVIEW OF LITERATURE

Bakioglu et al. (2020) investigated the mediating role of intolerance of uncertainty, depression, anxiety, and stress in the relationship between fear of COVID-19 and positivity. The participants in the study consisted of 960 people, including 663 women (69.1%) and 297 men (30.9%). Because of the correlation analysis, a positive relationship was found between fear of COVID-19 and intolerance of uncertainty, depression, anxiety, and stress, and a negative relationship between fear. It was concluded that eliminating uncertainty regarding the fear of COVID-19 will reduce depression, anxiety, and stress and increase positivity.

Cao et al. (2020) sampled university students from Changzhi medical school using cluster sampling. The students answered the 7-item General Anxiety Disorder Scale about COVID-19 and the questionnaire asked the basic information about the participants. The results showed that 0.9% of the respondents experienced severe anxiety, 2.7% had moderate anxiety and 21.3%

experienced mild anxiety. Additionally, living in urban areas, family income stability, and living with parents were protective factors against anxiety. Also, having relatives or acquaintances infected with COVID-19 was a risk factor that increased the anxiety of college students. The results of the correlation analysis showed that economic effects and effects on daily life, as well as delays in academic activities, were positively associated with anxiety symptoms. However, social support is negatively associated with anxiety levels.

Fardin (2020) examined the psychological effects of COVID-19 and its relationship with anxiety. For this purpose, relevant studies since 2007 in electronic databases including PubMed, Medline, Elsevier and Science Direct were reviewed. A review of studies in other parts of the world showed that COVID-19 has various psychological effects, including increased anxiety. According to the results of the study, the increase in the prevalence rate of COVID-19 and the restrictions brought about by this increase the level of anxiety. Therefore, raising awareness of the disease in society and presenting positive psychological programmes to control stress in the media can reduce the anxiety in society.

Gencer (2020b) examined the fear levels of individuals regarding the corona virus pandemic according to various variables. 'The Fear of COVID-19 Scale' was used as a data collection tool in the study. Because of the research, it was seen that the general average score obtained from the scale was close to the middle. It was stated that the mean of the corona virus fear scores of the sample group differed significantly according to gender, age and marital status variables. There was no significant difference in the mean scores of fears of corona virus in terms of education level and chronic disease variables.

OBJECTIVES OF THE STUDY

The main purpose of this research is to determine the level of fear of secondary school students against the COVID-19 pandemic. Within the framework of this general purpose, the other aims of the research are as follows:

- What are the factors that increase students' fears about the COVID-19 pandemic?
- What are the events that affect students the most during the COVID-19 pandemic?
- What are the factors that reduce students' fear of the COVID-19 pandemic?

RESEARCH DESIGN

A mixed-method research design was used in this study. In mixed-method research design, both qualitative and quantitative methods are used (Fraenkel et al., 2012). In this study, this design was used to provide a more detailed and comprehensive understanding of a determined situation and to diversify the data by using the advantages of both qualitative and quantitative methodology (Mills & Gay, 2016; Yorek et al., 2016). The parallel design approach, which converges from the mixed-method research design, was employed. In this design, quantitative and qualitative data are collected simultaneously, but the collected data are analysed separately, and the results are interpreted together. Quantitative and qualitative data obtained in this design are equally important (Creswell & Clark, 2011; Ugulu, 2019).

SAMPLING

The research universe consists of secondary school students studying in the city centre of Usak, Turkey. The sample of the study consists of 528 students who could be reached from the specified universe. The sample was formed by using the convenient sampling method, which is one of the non-random sampling methods (Fraenkel & Wallen, 2006; Koruoglu et al., 2015). In this sampling method, the researcher chooses individuals who are close to him and whom he can easily access (Ugulu, 2020; Yorek et al., 2008). In this study, a convenient sampling method was used because it was difficult to reach students due to the pandemic. Some demographic information of the students in the sample is given in Table 1.

Tools Used

A 'Corona virus Fear Scale' was used to collect quantitative data. The scale developed by Haktanir et al. (2020) as 5-point Likert consists of 7 items. While the lowest score that can be obtained on the scale is 7, the highest score that can be obtained is 35. As the scores obtained from the scale increase, the fear level of the students toward the corona virus increases. To determine the reliability of the data obtained from the measurement tool, the Cronbach α - internal consistency coefficient was calculated and was found to be 0.83.

In the research, structured interviews were conducted to collect qualitative data (Ugulu et al., 2008). Three questions were prepared to conduct a structured interview. Due to the pandemic, the prepared questions were asked to the students in the sample group online, instead of face-to-face interviews, and the answers were collected in writing online.

33.7

35.0

Characteristic	2	N	%	
Gender	Girl	293	55.5	
Gender	Boy	235	44.5	
	5	123	23.3	
Grade	6	92	17.4	
	7	113	21.4	
	8	200	37.9	
	Low	165	31.3	

178

185

Table 1 Demographic Information of the Sample Group.

Middle

High

Data Analysis

Socio-Economic

Level

To determine the statistical methods to be applied for the collected quantitative data, it was first determined whether the data showed a normal distribution or not. For this purpose, the Kurtosis coefficient was calculated as -0.602 and the Skewness coefficient as 0.220. Based on the kurtosis and skewness coefficients, it was accepted that the data showed a normal distribution and parametric tests could be used in the analysis (Erkol & Ugulu, 2014; Tabachnick & Fidell, 2007). The arithmetic means and standard deviation values were calculated to determine the fear levels of the students toward the corona virus. Independent samples t-test was conducted to determine whether there was a difference between students' fear levels for corona virus depending on their gender. A one-way ANOVA test was used to analyse the variance to determine whether there was a difference between the fear levels of the corona virus depending on the grade level of the students and socio-economic level.

Content analysis technique was used in the analysis of qualitative data. In content analysis, verbal or written expressions are systematically classified and converted into numbers (Ugulu & Erkol, 2013; Yorek et al., 2010b, 2010a). In content analysis, codes are created first, and then themes related to the codes are created. Thus, the codes are interpreted by bringing them together under certain themes (Merriam & Grenier, 2019). Theme and codes were created by the researchers. Then, the data of 10 students were coded by two different people, and the coding reliability of the data was calculated as 99.15% by using the items that were in agreement among the coders.

RESULTS OF THE STUDY

To determine the fear levels of students toward corona virus the total mean score and standard deviation obtained by the students from the scale were calculated and the findings are presented in Table 2. While the lowest score that students can get from the Corona virus Fear Scale is 7, the highest score is 35. In this study, the arithmetic mean of the students was calculated as 17.15.

Table 2
Arithmetic Mean and Standard Deviation Values for the Corona Virus Fear Scale.

N	M	SD
528	17.15	6.71

Independent groups t-test was performed to determine whether there was a difference between students' fear levels for corona virus depending on their gender, and the findings are presented in Table 3. According to the data obtained in Table 3, a significant difference was found between the fear levels of secondary school students toward corona virus depending on their gender (t=4.723, p<0.005). The mean values depict that the fear levels of female students are higher as compared to male students. Hence, statistically, female students are more afraid of corona virus than male students.

Table 3
t-test for Students' Fear Levels for Corona Virus and Their Gender.

Gender	N	M	SD	t	p
Girl	293	18.36	6.32	4.72	0.00
Boy	235	15.64	6.88	4.72	0.00

Analysis of variance was performed to determine whether there is a difference between the fear levels of students for corona virus depending on their grade level. The findings are presented in Table 4. According to the data obtained, a significant difference was found between the levels of fear toward corona virus depending on the grade level of the students (p=0.003 p<0.05). To determine the source of the difference obtained in the study, difference control analysis was performed using the Tukey's test and the results are presented in Table 5.

According to the results of the difference control analysis, between the 5^{th} grade and 7^{th} grade students, the result was in favour of the 5th-grade students

(p=0.032, p<0.05). Between the 6^{th} grade and 7^{th} grade students the result was in favour of the 6^{th} grade students (p= 0.025, p<0.05), because of statistically significant difference (Table 5). According to these findings, 5^{th} and 6^{th} grade students are more afraid of corona virus than 7^{th} grade students.

Table 4 Analysis of Variance Results by Grade Level.

Source	Sum Squares	of	df	Mean Square	F	p
Between Groups	610.76		3	203.58		
Within Groups	23089.11		524	44.06	4.62	0.003
Total	23699.87		527	44.00		

Table 5 Difference Control Analysis Results.

Grade (I)	Grade (J)	Difference of Means (I-J)	p
5	7	2.37	0.032
6	7	2.64	0.025

To further determine whether there is a significant difference between the fear levels of the students for the corona virus and their socio-economic levels, analysis of variance was done. The findings are presented in Table 6. According to the data there is no significant difference between the fear levels of the students for the corona virus and their socio-economic levels (p=0.185, p>0.05).

Table 6 Analysis of Variance Results by Socio-economic Level.

Source	Sum of Squares	df	Mean Square	F	p
Between Groups	152.03	2	76.01		
Within Groups	23547.84	525	44.95	1.69	0.185
Total	23699.87	527	44.85		

In the study, three open-ended questions were asked to the students to collect qualitative data. Content analysis findings for the answers given to the question "What were the factors that increased your fear during the Covid

19 pandemic?" are presented in Table 7. According to the data obtained, 54 students stated that they were unafraid of COVID-19. Students expressed the some of the major factors that increased their fear levels are as follows: an increase in the number of cases (26.24%), increase in the number of deaths (12.69%), death of family members (2.40%), death of close relatives (1.20%), fear of losing loved ones (0.86%), being COVID positive (6.52%), a family member being COVID positive (5.15%), people in immediate surroundings being COVID positive (5.15%), people's insensitivity (7.20%), people not wearing masks (4.29%) and people not following social distancing (2.40%).

Table 7
Factors That Increase the Fear Level Of Students During The COVID-19
Pandemic.

Theme	Code	f	%
	No fear	54	9.26
Number of cases	Increase in cases	153	26.24
	Increase in deaths	74	12.69
Death	Death of family members	14	2.40
Death	Death of close relatives	7	1.20
	Fear of losing loved ones	5	0.86
Roina	Being COVID-19	38	6.52
Being COVID-19	A family member is COVID-19	30	5.15
COVID-19	Immediate surroundings are COVID-19	30	5.15
Human	People's insensitivity	42	7.20
Behaviours	People do not wear masks	25	4.29
Denaviours	People not following social distance	14	2.40
School	Schools closed	13	2.23
301001	Open schools	11	1.89
	Not being able to follow my LGS lessons	6	1.03
Exam	Exam stress	1	0.17
	Future anxiety	1	0.17
	News	22	3.77
	Mutation	16	2.74
	Street curfew	8	1.37
Other	Removal of bans	6	1.03
	Spread of cases in Usak	6	1.03
	Quarantine	4	0.69
	Vaccination	2	0.34

The responses for the question "What were the situations that affected you most during the COVID-19 pandemic?" are presented in Table 8. Students

gave the following answers about the situations that affect them: school closure (12.82%), school being online (6.24%), lagging behind classes (2.53%), opening of schools (1.35%), closing of private teaching institutions (0.67%), staying at home (13.66%), restrictions imposed (8.09%), quarantine period (1.69%), not being able to go out again (0.84%), not being able to eat out (0.67%), increase in cases (8.09%), death of people (6.91%), death in close environment (3.04%), my psychology is broken (2.70%), fear of being COVID-19 positive (1.85%), being bored (0.84%), close people being COVID-19 positive (4.05%), being COVID-19 positive in one of the family (2.87%), not being able to meet with friends (1.85%), not being able to meet with relatives (0.17%), high risk in city (1.01%), wear a mask (3.37%), news 1.01%). 6.41% of the students stated that they were not affected by any situation.

Table 8 Situations that Affect the Students Most During The COVID-19 Pandemic.

Theme	Code	f	0/0
	School closure	76	12.82
	School is online	37	6.24
Education	Lagging behind classes	15	2.53
Education	High school entrance exam	14	2.36
	Opening schools	8	1.35
	Closing of private teaching institutions	4	0.67
	Staying at home	81	13.66
	Restrictions	48	8.09
Restrictions	Quarantine period	10	1.69
	Not being able to go out again	5	0.84
	Not being able to eat out	4	0.67
	Increase in cases	48	8.09
Death	Death of people	41	6.91
	Death in close environment	18	3.04
	No any situation	38	6.41
Davida da arr	My psychology is broken	16	2.70
Psychology	Fear of being COVID-19	11	1.85
	Being bored	5	0.84
Daina	Close people are COVID-19	24	4.05
Being	Being COVID-19 in one of the families	17	2.87
COVID-19	Self-being COVID-19	7	1.18
	Not being able to meet friends	11	1.85
Human	Not being able to meet relatives	1	0.17
Relationship	Not being able to see anyone	1	0.17

Table 8 continued			
	Home guests	1	0.17
	Not maintaining social distance	4	0.67
Inattention	People's insensitivity	3	0.51
	People do not take precautions	2	0.34
The Risk	High risk	6	1.01
Situation of the	Middle risk	1	0.17
City	Wear a mask	20	3.37
	News	6	1.01
Others	Cannot do sports	4	0.67
Others	Change of physical properties	3	0.51
	Staying away from social media	2	0.34
	Economic status	1	0.17

Content analysis findings for the answers given to the question "What did you do to reduce your fear during the COVID-19 pandemic process?" are presented in Table 9. While 5.91% of the participants stated that they were unafraid, 20.33% of them were staying at home, 16.90% of them were wearing masks, 12.77% of them were related to hygiene, 9.81% were taking precautions and 9.22% stated that they were trying to reduce their fear of COVID-19 by maintaining social distance. Apart from these, students gave the following answers: playing games (3.78%), playing on computer (1.54%), playing on the phone (0.95%), reading a book (3.66%), studying (3.43%), playing sports (1.54%), doing activities (1.30%), feeding animals (0.59%), flying pigeons (0.24%), riding a horse (0.24%), sleeping (0.59%), eating (0.59%), listening to music (1.18%), watching movies (0.59%), praying (0.95%) and 0.95% talking to their friends on social media.

Table 9
Actions to Reduce Fear During the Covid-19 Pandemic.

Theme	Code	f	0/0
	No fear	50	5.91
	Staying at home	172	20.33
Talein a	Wearing a mask	143	16.90
Taking	Hygiene	108	12.77
precautions	Taking precautions	83	9.81
	Maintaining social distance	78	9.22
	Playing games	32	3.78
Game	Playing on computer	13	1.54

Table 9 continued			
	Playing on the phone	8	0.95
Self-	Reading a book	31	3.66
Improvement	Studying	29	3.43
Activities	Doing sports	13	1.54
Activities	Doing activities	11	1.30
	Feeding animals	5	0.59
Animal love	Flying pigeons	2	0.24
	Riding a horse	2	0.24
Dhysical mode	Sleeping	5	0.59
Physical needs	Eating	5	0.59
	Listening to music	10	1.18
Llobby	Watching movies	5	0.59
Hobby	Painting	4	0.47
	Playing the violin	2	0.24
	Boost morale holding	19	2.25
Other	Praying	8	0.95
	Talking to their friends on social media	8	0.95

Discussion

In this study, the arithmetic mean of the student's scores from the Corona virus Fear Scale was calculated as 17.15. While the lowest score that students can get from the scale is 7, the highest score is 35. This result shows that students' fears about corona virus are moderate. These results agree with the findings obtained from other studies (Ekiz et al., 2020; Gencer, 2020b; Wang, Cheng, et al., 2020). Gencer (2020b) found in his research that the participants experienced approximately moderate fear of corona virus. In a study conducted during the first outbreak of the COVID-19 epidemic in China, it was determined that more than half of the respondents had moderate psychological anxiety and fear (Wang, Cheng, et al., 2020). In another study conducted with 1050 people, it was determined that the health anxiety and control perception levels of individuals regarding the COVID-19 pandemic were moderate (Ekiz et al., 2020). Nehir and Tavsanli (2021) used the COVID-19 Fear Scale in their study to determine students' fears about corona virus. While the highest possible score on this scale was 35, the average of the participants was 19.62. This result is in parallel with the data obtained from this study. In a study that determined the feelings of students toward the pandemic process, students expressed their feelings as sad, restless, angry, worried and scared (Kara, 2020). Although the COVID-19 pandemic is a medical event that affects society and individuals, it is a social case that causes variable deterioration (Yanarates, 2020). For this reason, it can be said that it causes the feeling of panic and fear in people.

The results of the study reveal that the fear levels of female students toward corona virus were higher than the fear levels of male students toward corona virus. The findings obtained from this study show similarity with the findings obtained from the study of (Gencer, 2020b). Gencer (2020b) also found that women's fear of corona virus was higher than men's fear of corona virus. Bakioglu et al. (2020) similarly found in their study that women's fear levels for corona virus are higher than men's fear levels. The findings are also consistent with the results of the studies conducted by Nehir and Tavsanli (2021) and Arpacioglu et al. (2021). Unlike the findings obtained from this study, Gashi (2020) found that there was no statistical difference between the fear levels of students toward corona virus depending on their gender. Other findings have reported that individuals' fear levels toward corona virus are not different in reference to their gender (Cao et al., 2020; Huang & Zhao, 2020). Completely different from these results, Memis-Dogan and Duzel (2020) found that male students' fear levels toward corona virus were higher than females.

According to the results obtained from this study, a statistically significant difference was found between the 5^{th} grade and 7^{th} grade students in favour of the 5^{th} grade students, and between the 6^{th} grade and 7^{th} grade students in favour of the 6^{th} grade students. According to these findings, 5^{th} and 6^{th} grade students are more afraid of corona virus than 7^{th} grade students. Similarly, in the study conducted by Huang and Zhao (2020), it was determined that the depression and anxiety levels of people in the low age group were higher than those in the older age group. Unlike the findings obtained in this study, Gashi (2020) found that the level of fear toward corona virus did not change depending on age in a sample of individuals aged 13 to 55 years. Turkey Ministry of Education (2020) determined in its research that children aged 6-11 can understand the pandemic more concretely as children in this age group avoid meeting with their friends, are afraid of going out, and have a high fear of harming their family if infected.

The factors that increase students' fears about COVID-19 the most were the increase in cases, the increase in deaths, the insensitivity of people and the possibility of catching COVID-19 by himself, family or close circle. In a study, it was determined that death in the family and close circles due to COVID-19 affects individuals negatively (Bakioglu et al., 2020). In a study conducted by Memis-Dogan and Duzel (2020), 94.4% of the participants stated that they were afraid of their family or relatives catching COVID-19. In their study, Bicer and Ilhan (2020) found that reasons such as losing loved ones, being caught in a pandemic and death increases the anxiety of adolescents and children. It has been stated in a study that the greatest fear that children experience during the pandemic is the transmission of COVID-19 to their family or relatives, or the death of one of their family or relatives. According to the results of another study, it was determined that the limitation of physical activities of

individuals under the age of 20 along with the curfews affected their sleep patterns and nutrition, increased their fears of reasons such as not being able to spend enough time with their peers, not being able to play in the park or the open area, and the risk of catching COVID-19 (Ozcevik & Ocakci, 2020).

The situations that most affected students during the COVID-19 pandemic are; staying at home, closing of schools, restrictions, increasing cases, people dying and switching to online education. Yildiz and Bektas (2021), in their research, determined that children are most affected by the negative effects of corona virus, that children can go out for a short time under family supervision, provided that they comply with mask, hygiene and distance rules, and that the applied restrictions and fear of illness negatively affects children. In a similar study, it was found that curfews during the COVID-19 pandemic process increased the fear of transmission of the disease, caused great changes in people's social life and increased the level of anxiety (Fardin, 2020). In other studies, reasons such as strict quarantine process, curfews and staying at home cause psychological effects such as fear, and anxiety in individuals (Gao et al., 2020; Qiu et al., 2020). In the study conducted by Usta and Gokcan (2020), the situations that children were most affected by are death cases on television, an increase in the number of cases and social isolation.

Students stated that they took measures such as staying at home, wearing masks, paying attention to hygiene, taking precautions, and maintaining social distance to reduce their fears during the COVID-19 pandemic. Yildiz and Bektaş (2021), in their research, stated that to minimize the negative effects of the pandemic, controlled social life, awareness-raising, protection from disease and stress reduction are required. Wang, Pan, et al. (2020) stated that individuals should pay attention to hygiene and stay away from public vehicles and spaces to reduce their fear and anxiety levels. In another study, suggestions were made for children and adolescents do activities in the house against corona virus, to pay attention to oral health, to give importance to hand washing and hygiene (Bicer & Ilhan, 2020).

Conclusions

When we look at the results of the research, we see that COVID-19 affects and continues to affect the whole world. It causes individuals to change physically and psychologically. We can also say that this effect occurs mostly in children. When it comes to its negative effects, it is seen that many negative effects occur in terms of health, education, and socialization, as well as psychological and physical well-being. In addition to the negative results, we should consider that the fear of COVID-19 can make positive contributions to life, such as being cautious and paying attention to hygiene, preventing many health problems.

It has been understood that the level of fear in children against COVID-19 is at a moderate level and the level of fear increases in cases such as the increase in the number of cases, the increase in deaths, and the infections in themselves and their immediate surroundings. Research shows that the level of fear varies according to the course of COVID-19. It will be useful for research in the area of psychological effects of COVID-19 on children, the increase in the use of social media in children during the pandemic, the success levels of children who receive distance education during the pandemic, the positive and negative effects of online education on children etc.

REFERENCES

- Arpacioglu, M. S., Baltaci, Z., & Unubol, B. (2021). Burnout, fear of COVID, depression, occupational satisfaction levels and related factors in healthcare professionals in the COVID-19 pandemic. *Cukurova Medical Journal*, 46(1), 88-100. https://doi.org/10.17826/cumj.785609
- Bakioglu, F., Korkmaz, O., & Ercan, H. (2020). Fear of COVID-19 and positivity: Mediating role of intolerance of uncertainty, depression, anxiety, and stress. *International Journal of Mental Health and Addiction*, 1-14. https://doi.org/10.1007/s11469-020-00331-y
- Bicer, B. K., & Ilhan, M. N. (2020). COVID-19 and health effects on children. *Gazi Saglik Bilimleri Dergisi*, 103-111. Retrieved from https://dergipark.org.tr/en/download/article-file/1275109
- Cao, W., Fang, Z., Hou, G., Han, M., Xu, X., Dong, J., & Zheng, J. (2020). The Psychological impact of the COVID-19 epidemic on college students in China. *Psychiatry Research*, 287(112934), 1-5.
- Creswell, J. W., & Clark, V. L. (2011). Designing and conducting mixed methods research (2nd ed.). Thousand Oaks: Sage.
- Ekiz, T., Iliman, E., & Donmez, E. (2020). Comparison of health anxiety level and control perception of COVID-19. *International Journal of Health Management and Strategies Research*, 6(1), 139-154. Retrieved from https://dergipark.org.tr/tr/download/article-file/1077630
- Erkol, S., & Ugulu, I. (2014). Examining biology teachers candidates' scientific process skill levels and comparing these levels in terms of various variables. *Procedia Social and Behavioral Sciences*, 116, 4742-4747. https://doi.org/10.1016/j.sbspro.2014.01.1019
- Fardin, M. A. (2020). COVID-19 and anxiety: A review of psychological impacts of infectious disease outbreaks. *Archives of Clinical Infectious Diseases*. https://doi.org/10.5812/archcid.102779
- Fraenkel, J. R., & Wallen, N. E. (2006). *How to design and evaluate research in education*. New York: McGraw-Hill.
- Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2012). *How to design and evaluate research in education*. USA: McGraw-Hill Companies Inc.

- Gao, C., Shi, D., & Maydeu-Olivares, A. (2020).Estimating the maximum likelihood root mean square error of approximation (RMSEA) with non-normal data: A Monte-Carlo study. Structural Equation Modelling: A Multidisciplinary Journal, 27(2), 192-201. https://doi.org/10.1080/10705511.2019.1637741
- Gashi, F. (2020). A Research on fear of COVID-19, anxiety and individual religiosity in Kosovo society. *Trabzon Theology Journal*, 7(2), 227-262.
- Gencer, N. (2020a). Being elderly in COVID-19 process: Evaluations on curfew for 65-Year-old and over citizens and spiritual social work. Türkiye Sosyal Hizmet Araştırmaları Dergisi, 4(1), 35-42.
- Gencer, N. (2020b). Corona virus (COVID-19) fear of individuals during the pandemia: Corum sample. *International Journal of Social Sciences* Academy, 2(4), 1153-1173. https://doi.org/10.47994/usbad.791577
- Haktanir, A., Seki, T., & Dilmac, B. (2020). Adaptation and evaluation of Turkish version of the fear of COVID-19 Scale. Death Studies. https://doi.org/10.1080/07481187.2020.1773026
- Huang, Y., & Zhao, N. (2020). Generalized anxiety disorder, depressive symptoms and sleep quality during COVID-19 epidemic in China: A Web-Based Cross-sectional Survey. Psychiatry Research, 288(112954),
- Kara, Y. (2020). Students' experiences in the pandemic duration: the case of Bakirkov district. Eurasian Journal of Researches in Social and Economics, 7(7), 165-176. Retrieved from https://dergipark.org.tr/ tr/download/article-file/1166951
- Kocoglu, E., Kalin, O. U., Tekdal, D., & Yigen, V. COVID-19 pandemic process, education at a glance in Turkey. International Social Sciences Studies Journal, 6(65), 2956-2966. https://doi.org/10.26449/sssj.2448
- Koruoglu, N., Ugulu, I., & Yorek, N. (2015).Investigation of High School Students' Environmental Attitudes in Terms of Some Demographic Variables. Psychology, 6, 1608-1623. https://doi.org/10.4236/psych.2015.613158
- Memis-Dogan, M., & Duzel, B. (2020).Fear-anxiety levels in COVID-19. Electronic Turkish Studies, 15(4), 739-752. https://doi.org/10.7827/TurkishStudies.44678
- Merriam, S. B., & Grenier, S. R. (2019). Qualitative research in practice: Examples for discussion and analysis. USA: Jossey-Bass.
- Mills, G. E., & Gay, L. R. (2016). Educational research: competencies for analysis and applications. (11th ed.). USA: Pearson Education.
- Nehir, S., & Tavsanli, N. G. (2021). The effect of COVID-19 pandemic on the nursing and midwifery students' perception of fear and control. Medical Sciences, 16(2), 141-150. Retrieved from https://dergipark .org.tr/en/download/article-file/1755872

- Ozcevik, D., & Ocakci, A. F. (2020). COVID-19 and child in home confinement: psychological effects of the outbreak and ways to alleviate. *Ankara Saglik Hizmetleri Dergisi*, 19(1), 13-17. Retrieved from https://dergipark.org.tr/tr/download/article-file/1310406
- Qiu, J., Shen, B., Zhao, M., Wang, Z., Xie, B., & Xu, Y. (2020). A nationwide survey of psychological distress among Chinese people in the COV□D 19 epidemic: implications and policy recommendations. *General Psychiatry*, 33(2). https://doi.org/10.1136/gpsych-2020-100213
- Satici, B., Gocet-Tekin, E., Deniz, M. E., & Satici, S. A. (2020). Adaptation of the Fear of COVID-19 Scale: Its Association with Psychological Distress and Life Satisfaction in Turkey. *International Journal of Mental Health and Addiction*, 1-9. https://doi.org/10.1007/s11469-020-00294-0
- Tabachnick, B. G., & Fidell, L. S. (2007). *Experimental designs using anova*. Utah, USA: Thomson/Brooks/Cole.
- Turkey Ministry of Education . (2020). Protecting our psychological well-being during epidemics: A guide for families to help children. Retrieved 2020-06-20, from http://www.meb.gov.tr/meb_iys_dosyalar/2020_03/30112459ailecocuk.pdf
- Ugulu, I. (2019). Efficacy of recycling education integrated with ecology course prepared within the context of enrichment among gifted students. *International Journal of Educational Sciences*, 26(1-3), 49-58. https://doi.org/10.31901/24566322.2019/26.1-3.1086
- Ugulu, I. (2020). Gifted students' attitudes towards science. *International Journal of Educational Sciences*, 28(1-3), 7-14. https://doi.org/10.31901/24566322.2020/28.1-3.1088
- Ugulu, I. (2021). Quantitative research on gifted students' scientific epistemological beliefs. *MIER Journal of Educational Studies Trends and Practices*, 11(2), 252-268. https://doi.org/10.52634/mier/2021/v11/i2/1683
- Ugulu, I., Aydin, H., Yorek, N., & Dogan, Y. (2008). The impact of endemism concept on environmental attitudes of secondary school students. *Natura Montenegrina*, 7(3), 165-173. Retrieved from https://www.researchgate.net/publication/264881923
- Ugulu, I., & Erkol, S. (2013). Environmental attitudes of biology teacher candidates and the assessments in terms of some variables. *NWSA-Education Sciences*, 8(1), 79-89.
- Usta, S. Y., & Gokcan, H. N. (2020). COVID-19 through the eye of children and mothers. *International Journal of Social Sciences and Education Research*, 6(2), 187-206. Retrieved from https://dergipark.org.tr/tr/download/article-file/1183560
- Wang, C., Cheng, Z., Yue, X. G., & Mcaleer, M. (2020). Risk management

- of COVID-19 by universities in China. Journal of Risk and Financial Management, 13, 36-42. https://doi.org/10.3390/jrfm13020036
- Wang, C., Pan, R., Wan, X., Tan, Y., Xu, L., Ho, C. S., ... others (2020). Immediate psychological responses and associated factors during the initial stage of the 2019 corona virus disease (COVID-19) epidemic among the general population in China. Journal of Environmental Research and Public Health, 17(1729), 1-25. https://doi.org/10.3390/ijerph17051729
- World Health Organisation. (2020a). *Q&A on corona viruses* (COVID-19). Retrieved 2020-11-08, from https://www.who.int/news-room/q-a -detail/q-a-coronaviruses
- World Health Organization. (2020b). Corona virus disease (COVID-2019) situation reports. Retrieved 2020-11-08, from https://www.who.int/ emergencies/diseases/novelcoronavirus2019/situationreports
- Yanarates, E. (2020). An Overall Evaluation of the COVID-19 Pandemic. Social Scientific Centered Issues, 2(1), 24-33. Retrieved from https:// dergipark.org.tr/tr/download/article-file/1165406
- Yildiz, S., & Bektaş, F. (2021). Evaluation of the changes in the way of spending leisure time of children in the COVID-19 epidemic with the views of parents. Gazi Journal of Physical Education and Sport Sciences, 26(1), 99-122. Retrieved from https://dergipark.org.tr/tr/ download/article-file/1430380
- Yorek, N., Aydin, H., Ugulu, I., & Dogan, Y. (2008). An Investigation on students' perceptions of biodiversity. Natura Montenegrina, 7(3), 175-184. Retrieved from https://files.eric.ed.gov/fulltext/ED505879 .pdf
- Yorek, N., Sahin, M., & Ugulu, I. (2010b). Students' representations of the cell concept from 6 to 11 grades: Persistence of the "fried-egg model. International Journal of Physical Sciences, 5(1), 15-24. https://doi.org/10.5897/IJPS.9000529
- Yorek, N., Ugulu, I., & Aydin, H. (2016). Using self-organizing neural network map combined with ward's clustering algorithm for visualization of students' cognitive structural models about aliveness concept. Computational Intelligence and Neuroscience, 2476256, 1-14.
- Yorek, N., Ugulu, I., Sahin, M., & Dogan, Y. (2010a). A qualitative investigation of students' understanding about ecosystem and its components. *Natura Montenegrina*, 9(3), 973-981.