

ISSN: 2146-1961

Seyhan, F. & Şen, H. (2022). Covid-19 Phobia: A Research on University Students, *International Journal of Eurasia Social Sciences (IJOESS)*, 13(50), 1337-1352.

**DOI:** http://dx.doi.org/10.35826/ijoess.3137

ArticleType (Makale Türü): Research Atricle

# **COVID-19 PHOBIA: A RESEARCH ON UNIVERSITY STUDENTS**

*Fırat SEYHAN* Lecturer, University of Health Sciences, Ankara, Turkey, firat.seyhan@sbu.edu.tr ORCID: 0000-0002-9065-2381

Harika ŞEN Lecturer, University of Health Sciences, Ankara, Turkey, harika.sen@sbu.edu.tr ORCID: 0000-0002-3893-5587

Received: 19.03.2022 Accepte

Accepted: 02.11.2022

Published: 01.12.2022

### ABSTRACT

Due to the Covid-19 pandemic negative emotional states such as anxiety, stress, anger, and worry high levels of living and contracting the Covid-19 virus. It is seen that they feel fear of illness. Studies on psychological responses to epidemics and pandemics reveal that variables such as uncertainty intolerance, feeling of insecurity, and anxiety tendency can cause coronaphobia. It is also considered that information pollution, which is contributed by popular headlines in the audio and visual media and various broadcasters, also plays an essential role in coronophobia Therefore this research aims to gain information about the health behaviors of university students in the face of an epidemic threat, as well as, Covid-19 phobia, which appears with the thought of being a significant threat to the wellbeing of university students and which is a psychological experience that triggers the physical and emotional anxiety symptoms of the individual, as a result, is to be explicitly addressed for university students. In addition, the study tried to determine whether the students who are receiving health education had Covid-19 phobia. The research was organized in accordance with the relational survey model. Five hundred fifty-nine vocational school students participated in the study, and the data were analyzed using SPSS 23 and AMOS 24 programs to examine the research model. Confirmatory Factor Analysis and Fit Indices values were found to be within acceptable limits. As a result of the research, it was determined that the gender of the students, the income of their families, and the residential areas caused significant differences in the context of Covid-19 phobia.

Keywords: Coronavirus, pandemic, covid-19 phobia, education, university students.

### INTRODUCTION

Coronavirus, expressed as Orthocoronavirinae in Latin, constitutes one of the two Coronaviridae virus families. Birds and mammals are among the known species that coronaviruses have settled and host the disease, and these viruses generally do not cause significant health problems in humans. Complaints of the respiratory tract are prominent in the illness that occurs, and the clinical course is similar to the flu. Besides; Some types of coronavirus, first encountered in the form of SARS-CoV, ongoing MERS-CoV, and finally spreading around the world with COVID-19, may present symptoms as severe respiratory disease, and in some cases, cause death (Sharma & Som, 2020; Xu et al., 2020). The existence of coronaviruses, including MERS-CoV, SARS-CoV, and COVID-19, has been known since the early '60s. The first discovered coronaviruses' isolation was made from poultry's respiratory tracts and humans' nasal cavities. About 40 years after the first discovery, SARS-CoV in 2003, followed by HCoV NL63 and HKU1, MERS-CoV in 2012, and CoVID-19 in 2019, are members of the coronavirus family. All these viruses are listed to cause respiratory disease (Zhou et al., 2020). SARS stands for "Severe Acute Respiratory Syndrome." Also known as SARS-CoV, the agent has been identified as the cause of respiratory disease in humans. The SARS epidemic started in Southeast Asia and spread in 2002-2003 with pandemic characteristics, and the mortality rate is over 10% (Ashour et al., 2020). MERS stands for "Middle East Respiratory Syndrome," and it is a coronavirus infection and progresses with respiratory disease symptoms. It was detected in Saudi Arabia in 2012, and the mortality rate is higher than 30% (Ji, 2020).

The definition of the new type of coronavirus disease known as COVID-19 was made in January 2020. The new kind of coronavirus disease was first diagnosed in December 2019 in Wuhan Province, China, as a result of examining those with respiratory tract symptoms. It was determined that the starting point of the epidemic was the markets where seafood and/or livestock were sold. In these markets, the virus, which was transmitted from animal to humans, then spread from person to person and spread first to other parts of China and then to the world. Human-to-human transmission occurs through droplets or contact with virus-contaminated secretions or surfaces. Contagion can be among those who show symptoms of the disease as well as those who do not (Shereen et al., 2020).

There is an increase in Covid-19 transmission risk in places where people spend time collectively without a protective distance. Some of these places are; sports activity centers, cinemas, theaters, eating and drinking places such as restaurants, nursing homes where the elderly or orphans stay, and prisons. In order to limit the progression of the Covid-19 epidemic, quarantine and isolation measures are implemented by all countries and, in a narrower framework, by all institutions, organizations, and organizations worldwide. To show sensitivity to these measures' implementation, limiting the infection has been successful (Wilder-Smith & Freedman, 2020).

In order to contain the COVID-19 epidemic in Turkey, which the impact is at a global level, various policies are developed, and the measures to be taken are implemented. The COVID-19 outbreak has disrupted Turkey's life in social, cultural, economic, and other areas as in the whole world. The epidemic reaching a pandemic level

has resulted in the closure of borders, quarantine practices, and the disintegration of institutional infrastructures; and the extent of the final effects cannot be predicted yet, and it is predicted that these effects may be grave (Turan & Hamza Çelikyay, 2020). Turkey basically builds the fight against the pandemic on elements such as maintaining the social distance between people, proving a sustainable healthcare system, producing and distributing basic needs without interruption, building elements such as the continuity of public order (Ministry of Health, 2019).

Besides, the principle of transparency, which is a hard-and-fast rule in crisis management, was applied with precision, and people were informed quickly and accurately. Coordination was ensured in pandemic management and acted according to the principle of "cooperation based on target unity" (Turan & Hamza Çelikyay, 2020). Various materials that will help guide the fight against the epidemic from the first moment by the Ministry of Health have been distributed by media elements everywhere, and public awareness has been provided (Turan & Hamza Çelikyay, 2020). The "stay at home" implementation has been put into practice as one of the most critical tools of combating the epidemic, and curfews have been imposed in a significant part of the country, especially in metropolitan cities. Sports activities were canceled, and guest visits were restricted to hospitals and prisons. Events such as meetings, congresses, and fairs, activities in courthouses, and collective worship have been postponed to limit social mobility, and international and domestic travel and circulation have been restricted. In addition to all these measures, educational institutions were also closed, and education started to be carried out by implementing the "distance education" system (Turan & Hamza Çelikyay, 2020).

One of the essential elements of the process of combating the epidemic is curfew restrictions. People with chronic diseases, 65 years and older, and those younger than 20 years old were restricted from going out. Employees included in this scope were deemed on administrative leave and were prevented from taking risks by going to their workplaces. During the holidays, curfews were applied across the country, especially in metropolitan cities, on weekends, and some other necessary days (Turan & Hamza Çelikyay, 2020).

Another application that entered the lives of the country's people with the fight against the epidemic is the use of masks. The World Health Organization has strongly recommended the use of masks with different statements made at various times. Besides, citizens, tradespeople, workers, and other employees were prohibited from entering marketplaces, markets, and collaborative workplaces without a mask, and it was strongly recommended that every citizen who leaves their home should wear a mask outside (Turan & Hamza Çelikyay, 2020).

The phobia can be explained as "an illogical fear reaction." When the phobia source is encountered, a deep panic feeling is experienced, and the fear reaction or panic feeling in question may be related to a place, situation, or object. The difference between anxiety disorders and phobia is that the phobia is usually linked to a specific element. The effect of phobia can range from simple momentary exposure to disabling normal life.

People with phobias are often aware that their fears are meaningless, but they cannot eliminate fear, and these unresolved fears negatively affect social and personal relationships (Marks, 2013).

The causes of phobias may be due to genetic or environmental factors. In terms of its incidence, phobia disorder is more common in people with anxiety disorders in a close relative than in the average population. Waiting to be rescued by staying in a tight space or height for a long time or being exposed to various animal/insect attacks can cause phobias' development or initiation (Marks, 2013). A new phenomenon has come into our lives due to the Covid-19 epidemic, and the restriction measures applied together with the measures taken against it is "coronaphobia." Coronaphobia is defined as "fear of exposure to coronavirus and reaction developed to avoid it" (Simonetti et al., 2020). In light of the findings obtained from some researches, COVID-19 is said to have significant psychological effects. A study conducted on a group of Canadian adults revealed that one-third of the study group was "anxious" about the virus, and nearly 10% were "very anxious" about the infection. The study also revealed a significant increase in hygiene and avoidance behavior, 3% of the participants purchased a face mask, 41% washed their hands more frequently than before, avoided using public transportation and public places. It is seen that the results obtained from the studies conducted in the USA are similar to the results of this Canadian study (Asmundson & Taylor, 2020).

Studies on psychological responses to epidemics and pandemics reveal that variables such as uncertainty intolerance, feeling of insecurity, and anxiety tendency can cause coronaphobia. It is also considered that information pollution, which is contributed by popular headlines in the audio and visual media and various broadcasters, also plays an essential role in coronophobia (Taylor, 2019; Taylor & Asmundson, 2004). Individuals' level of perception of their health is significant in both their physical and psychological health. In this context, health anxiety affects many healthy lifestyle behaviors such as the perception of health status, demand for health care, protective measures, and health anxiety is desired to be reasonable. During the Covid-19 pandemic, health anxiety has risen, and freedom of people is somehow restricted. However, it is predicted that this study, which is carried out with the idea that people are psychologically worn out as a result of fears such as losing their jobs, getting sick, losing their loved ones, their immunity is weakened, and to determine the level of their perception of being protected against the Covid-19 pandemic, will contribute to the literature.

The purpose of this article is to provide information in this context, in addition to gather information about the health behaviors of university students, who are among the important sociological groups in the society, in the face of an epidemic threat during the current pandemic process, Covid-19 phobia, which appears with the thought of being under a significant threat to the health of university students, and which is a psychological experience that triggers the physical and emotional anxiety symptoms of the individual, as a result, is explicitly addressed for university students.

### METHOD

#### **Research Design**

Due to the Covid-19 pandemic negative emotional states such as anxiety, stress, anger, and worry high levels of living and contracting the Covid-19 virus. It is seen that they feel fear of illness.Studies on psychological responses to epidemics and pandemics reveal that variables such as uncertainty intolerance, feeling of insecurity, and anxiety tendency can cause coronaphobia. It is also considered that information pollution, which is contributed by popular headlines in the audio and visual media and various broadcasters, also plays an essential role in coronophobia Therefore this research aims to gain information about the health behaviors of university students in the face of an epidemic threat, as well as, Covid-19 phobia, which appears with the thought of being a significant threat to the wellbeing of university students and which is a psychological experience that triggers the physical and emotional anxiety symptoms of the individual, as a result, is to be explicitly addressed for university students. In addition, the study tried to determine whether the students who are receiving health education had Covid-19 phobia. The research was organized in accordance with the relational survey model.

#### **Research Hypotheses**

H1: Participants' scores on the Covid-19 phobia scale and its sub-dimensions differ significantly according to their gender.

H2: It differs significantly according to the age groups that the participants took from the Covid-19 phobia scale and its sub-dimensions.

H3: Participants' scores on the Covid-19 phobia scale and its sub-dimensions differ significantly according to their families' income levels.

H4: Participants' scores on the Covid-19 phobia scale and its sub-dimensions differ significantly according to the number of members in the family.

H5: Participants' scores on the Covid-19 phobia scale and its sub-dimensions differ significantly according to their families' locations.

H6: Participants' scores on the Covid-19 phobia scale and its sub-dimensions differ significantly according to their way of obtaining information about Covid-19.

### **Study Group**

The universe of the research consists of students registered in universities in Ankara, Turkey; since it is not possible in terms of time and cost to examine the whole population in the collection of data, sampling was taken, and it was limited to the students of Gülhane Health Vocational School located in the Ankara campus of the Health Sciences University, which has a total of 12 programs. The students participating in the study were included in the study on a voluntary basis. The study was conducted with a total of 595 students using the simple random sampling method.

### **Data Collection Tools**

Questionnaire method was used as a data collection tool in the research. The questionnaire form consists of two groups of questions structurally. The first group of questions consists of 7 questions aimed at determining the demographic characteristics of the participants; the second group of questions was developed by Arpaci et al. to measure the phobia that may develop against coronavirus (2020), validity and reliability analyzes were made, and it consists of 5-degree Likert-type self-assessment questions of 20 questions.

There are 4 sub-dimensions in the scale, which are "psychological", "somatic", "social" and "economic" subdimensions. Scale items are scored between 1 "Strongly Disagree" and 5 "Strongly Agree." Items 1, 5, 9, 13, 17 and 20, measure the "Psychological" Sub-Dimension; items 2, 6, 10, 14, and 18 are measure the "Somatic" Sub-Dimension; items 3, 7, 11, 15 and 19 measure the "Social" Sub-Dimension; items 4, 8, 12 and 16 measure the "Economic" Sub-Dimension. In this context, together with the limitations of quantitative research, the data were collected by sending the questionnaire electronically via e-mail to the students who used social networks who agreed to participate in the research.

### Validity-Reliability

It is necessary to analyze the validity and reliability of scales to be used in scientific studies. The CFA method was used to construct validity of the scale used in our study, and the CA and QA coefficient methods were used for reliability. Validity; is the measurement method's ability to measure the subject that it chooses to measure without confusing it with another subject. With a similar expression, validity; is the degree to which the measurement method reaches the target. The level of validity is measured by the validity coefficient. This coefficient varies between -1.0 and +1.0, and closer to +1.0, the higher the degree of reaching the target. It can be defined briefly as the consistency of the reliability measurement tool. It is the degree of protection of the tool in repeated measurements under the same conditions (Mohajan, 2017). The validity and reliability analyzes of the scale used in our study were made with precision, and it was determined that the validity and reliability analyzes of the scale were at an acceptable level. In this way, it can be said that the results obtained from our research reflect the reality to a great extent.

As a result of the analyzes made in our study, it was determined that the validity and reliability levels of the scale used were at an acceptable level. The primary indicator of a scientific study's quality is that the study's reliability and validity are accurately measured. A score calculated by a measuring device is the sum of both the unknown real score and the error in the measurement process in a standardized survey. If the margin of error is low, and therefore, the study results are of high accuracy, the research will be qualified. To make a qualified study, validity and reliability analysis should be done carefully (Kimberlin & Winterstein, 2008).

### Data Analysis

The research data were analyzed by SPSS 23 and AMOS 24 statistics programs. The construct validity of the Covid-19 phobia scale used in the study was performed by Confirmatory Factor Analysis (CFA). The scale's reliability was evaluated by Cronbach's Alpha (CA) and composite reliability (KG) coefficients. Descriptive findings are given with numbers, percentages, mean, and standard deviation values. The normality of the data,

skewness, and kurtosis values was examined, and it was determined that the data did not show an excessive deviation from the normal distribution, since the skewness and kurtosis values of the data were within  $\pm 2$  (Pituch & Stevens, 2012).

Relationships between variables were evaluated with the Spearman correlation coefficient. T-test was used to compare two independent groups, and one-way ANOVA test was used to compare three or more groups. Despite the normal distribution of the data, the Kruskal Wallis H test was used to compare the way to obtain information about Covid-19, since some group numbers were below 30. Statistical p <0.05 value was accepted as significant in the analyzes.

## FINDINGS

In this part of the study, the participants' descriptive findings, CFA results of the Covid-19 phobia scale, and analysis findings regarding the research hypotheses are included.

### **Descriptive Findings of Participants**

Descriptive findings regarding the students participating in the study are presented in Table 1.

Descriptiv	n	%	
Gender	Female	356	63,7
	Male	203	36,3
Age (Average: 20,43±1,89)	20 years and under	346	61,9
	21 years and older	213	38,1
Family Income Level	2001-3000	262	46,9
	3001-4000	128	22,9
	4001-5000	85	15,2
	5001 or over	84	15,0
lumber of Individuals in the Family	1-3	136	24,3
	4-6	382	68,3
	7 or over	41	7,3
The Location of the Family	City	331	59,2
	District	163	29,2
	Village	65	11,6
How To Get Information About	News Programs	136	24,3
Covid-19	Statements of Public Institutions (e.g. Ministry of Health, etc.)	294	52,6
	Social Media (Instagram, Facebook, Twitter etc.)	99	17,7
	Internet Sites	20	3,6
	All	10	1,8

**Table 1.** Descriptive Findings Regarding Participants (n = 559)

According to these findings, 63.7% (n = 356) of the students are female and 61.9% (n = 346) are 20 years old and under. When the income levels of the families of the participants and the number of members in the family were examined, 46.9% (n = 262) had an income between 255-385 USD, 22.9% (n = 128) had an income between 385-510 USD, 68.3% (n = 382), the average number of members in the family are 4-6. While 59.2% (n = 331) of the participant's families are living in cities. 52.6% (n = 294) expressed that they received information from the public institutions' statements, 24.3% (n = 136) expressed that they received information about Covid-19 from news programs.

## **Covid-19 Phobia Scale CFA Findings**

The construction validity of the Covid-19 phobia scale used in the study was tested with Confirmatory Factor Analysis (CFA) and shown in Figure 1.



Figure 1. Confirmatory Factor Analysis Model

The first level CFA model in Figure 1 was read, and the situation of meeting multivariate normality assumption in the analysis was evaluated by examining multivariate kurtosis (Mardia Coefficient) and critical ratio. It has been stated that the critical rate up to 20 is generally not a problem (Gürbüz, 2019), and since the critical ratio of the CFA model (21,706) is above 20, the Unweighted Least Squares (ULS) method was used as the estimation method in the analysis (Bayram, 2010; Gurbuz, 2019). In the analysis using the Bootstrap method, 5000 new observation sets were created randomly from the original data set at 95% confidence interval, and the findings were evaluated. In the Bootstrap method, it is sufficient to create at least 2000 observation sets for the reliability of the findings (DiCiccio & Efron, 1996; Gürbüz, 2019). Table 2 includes good fit, acceptable fit, and fit indices for the model.

Fit Indices	Good Fit	Acceptable Fit	Model Values	
χ2/df	≤ 3	≤ 5	3,002	
GFI	0,90≤GFI≤1,00	0,85≤GFI<0,90	0,989	
AGFI	0,90≤AGFI≤1,00	0,85≤AGFI<0,90	0,986	
NFI	0,95≤NFI≤1,00	0,90≤NFI<0,95	0,986	
RMR	0 <rmr≤0,05< td=""><td>0,05<rmr≤0,08< td=""><td>0,065</td></rmr≤0,08<></td></rmr≤0,05<>	0,05 <rmr≤0,08< td=""><td>0,065</td></rmr≤0,08<>	0,065	
SRMR	0 <srmr≤0,05< td=""><td>0,05<srmr≤0,10< td=""><td>0,046</td></srmr≤0,10<></td></srmr≤0,05<>	0,05 <srmr≤0,10< td=""><td>0,046</td></srmr≤0,10<>	0,046	

According to these findings, the study's first level CFA model was evaluated to be compatible and valid with the data. It was observed that the factor loads of the items related to the Covid-19 phobia scale ranged from 0.518 to 0.808 and the factor loads of all items were statistically significant (p <0.05).

### **Covid-19 Phobia Scale Reliability Findings**

The mean, standard deviation, reliability, and correlation findings of the Covid-19 Phobia scale are shown in Table 3.

Variables	Average (Ss)	CA	KG	1	2	3	4
1. Psychological	20,13 (5,55)	0,834	0,838	1			
2. Psycho-Somatic	9,18 (3,96)	0,840	0,781	<i>,</i> 648*	1		
3.Social	14,52 (4,78)	0,809	0,772	,760*	706*	1	
4. Economical	8,89 (3,40)	0,745	0,721	,608*	<i>,</i> 583*	<i>,</i> 628*	1
5.Covid-19 Phobia	52,74 (15,36)	0,929	0,946	,900*	<i>,</i> 842*	,908*	,788*

Table 3. Reliability Findings of the Covid-19 Phobia Scale

\*p<0,01

According to these findings, it is seen that the total score average of the Covid-19 Phobia scale is 52.74 ± 15.36. It is seen that the sub-dimensions of the scale and CA and CG values of the scale have high reliability (Alpar, 2006; Altunişik et al., 2012; Erdoğan et al., 2014; Gürbüz, 2019; Elderoğlu, 2017). It was determined that there were same-directional significant relationships between the sub-dimensions of the Covid-19 Phobia scale and the total score. The reliability and correlation findings of the scale were found by Arpaci et al. (2020) and were determined to be in line with the findings of the study conducted.

### **Analysis Findings of the Working Hypotheses**

According to the difference analysis findings performed to test the research hypotheses, it was determined that there was no statistically significant difference (p>0.05) according to the participants' age groups, the number of individuals in their families, and the way they obtained information about Covid-19. The difference analysis findings made according to the gender of the participants are shown in Table 4.

	Gender	n	Average	Standard Deviation	t	р
Psychological	Female	356	21,33	5,07	6,816	0,000
	Male	203	18,03	5,73		
Psycho-Somatic	Female	356	9,75	4,14	4,825	<0,001
	Male	203	8,19	3,40		
Social	Female	356	15,23	4,54	4,774	<0,001
	Male	203	13,26	4,96		
Economical	Female	356	9,20	3,34	2,918	0,004
	Male	203	8,33	3,46		
Covid-19 Phobia	Female	356	55,54	14,66	5,872	<0,001
	Male	203	47,83	15,36		

Table 4. Differences Analysis Findings According to Gender of Participants

In the analysis, it was determined that there was a statistically significant difference (p <0.05) in both the subdimensions and the total score of the Covid-19 Phobia scale according to the gender of the participants. According to these findings, it was determined that the psychological, psychosomatic, social, economic, and Covid-19 Phobia scale total scores of the "female" participants were higher than the "male" participants. The differences analysis findings made according to the income status of the families of the participants are shown in Table 5.

Table 5. Difference Analysis Findings According to Income Status of Participants' Families

	Income	n	Average	Standart Deviation	F	р	Significant Difference
Economical	2001-3000 <sup>1</sup>	262	9,19	3,38			
	3001-4000 <sup>2</sup>	128	8,95	3,59	_		4<1
	4001-5000 <sup>3</sup>	85	8,87	3,22	3,131	0,025	4<2
	5001 and over <sup>4</sup>	84	7,89	3,22	-		

It was determined that there was a statistically significant difference (p < 0.05) in the scores of the economic sub-dimension in the difference analysis performed on the income levels of the families of the participants. According to these findings, the average of the participants in the "2001-3000" group (9.19 ± 3.38) and the "3001-4000" group (8.95 ± 3.59) is compared to the average of the participants in the "5001 and above" group (7.89 ± 3)., 22) was higher. The differences analysis findings made according to the participants' families' settlements are shown in Table 6.

Table 6. Variety Analysis Finding	s of the Participants	' Families by Settlements
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	Residental Area	n	Average	Standart Deviation	F	р	Significant Difference
Psychological	City <sup>1</sup>	331	20,85	5,06	10,317	<0,001	3<1
	District <sup>2</sup>	163	19,68	5,76			
	Village <sup>3</sup>	65	17,61	6,53			
Social	City <sup>1</sup>	331	15,29	4,51	11,164	<0,001	2<1
	Distric <sup>2</sup>	163	13,48	4,89			3<1
	Village <sup>3</sup>	65	13,16	5,16			
Covid-19 Phobia	City <sup>1</sup>	331	54,63	14,49	7,448	0,001	2<1
	Distric <sup>2</sup>	163	50,94	15,64			3<1
	Village <sup>3</sup>	65	47,60	17,39			

It was determined that there was a statistically significant difference (p<0.05) in both the psychological and economic sub-dimension scores and the total score of the Covid-19 Phobia scale in the analysis of differences regarding the settlements of the families of the participants.

According to these findings, the average of participants whose families live in cities  $(20,85\pm5,06)$  is higher than the average of participants living in villages  $(17,61\pm6,53)$  in the psychological sub-dimension. In the social subdimension, it was determined that the average of the participants whose families live in the cities  $(15,29\pm4,51)$ is higher than the average of the participants living in the districts  $(13,48\pm4,89)$  and villages  $(13,16\pm5,16)$ , and the Covid-19 Phobia scale total score of the participants whose families live in the cities  $(54,63\pm14,49)$  is higher than the average of the participants living in the districts  $(50,94\pm15,64)$  and villages  $(47,60\pm17,39)$ .

### **Study Hypotheses Analysis Results**

According to the analysis findings performed to test the research hypotheses;

H1: The hypothesis "Participants' scores on the Covid-19 Phobia scale and its sub-dimensions differ significantly according to their gender" was accepted,

H2: The hypothesis that "Participants differ significantly according to the age groups taken from the Covid-19 Phobia scale and its sub-dimensions" was rejected,

H3: The hypothesis "Participants' scores from the Covid-19 Phobia scale and sub-dimensions differ significantly according to the income levels of their families" was accepted for the economic sub-dimension,

H4: The hypothesis that "Participants' scores from the Covid-19 Phobia scale and its sub-dimensions differ significantly according to the number of members in the family" was rejected,

H5: The hypothesis that "Participants' scores from the Covid-19 Phobia scale and sub-dimensions differ significantly according to the location of their families" was accepted for the psychological and economic sub-dimension and the total score of the Covid-19 Phobia scale,

H6: The hypothesis "Participants' scores from the Covid-19 Phobia scale and its sub-dimensions differ significantly depending on how they get information about Covid-19" was rejected.

### **CONCLUSION and DISCUSSION**

The conclusion reached from the research findings is that a significant majority of the participants belong to rural families or slum families (transition family). Rural families consist of small shopkeepers or civil servants, farmers, and workers' families. These families originate from towns and villages. Slum family (transition family), on the other hand, is a family type that is triggered by migration to cities due to reasons such as the difficulty in living in the countryside, the decrease in population, and the restriction of access to health and education. These families' characteristics are that they generally have low-income and robust in terms of family control and solidarity. It was determined that the families mentioned above' approaches to the education of their

children were related to their own education levels, and it was emphasized that the purpose of encouraging children to education was mainly financial gain and profession. It is stated that, in these families, there is a prevailing opinion that children should have a higher education. This situation leads to the result that the families in question prefer professions for their children where it is easier get an education for lower costs or free of charge, which the education period is not too long, and at the end of the education, they will not have difficulty finding a job (Kadıoğlu & Adam, 2016).

Approximately 60% of the participants included in the study are female. Since the participants are students, it is seen that the average age is low, and the participants are young people. The majority of the participants come from families with low income, and it is understood that nearly 50% of the families have an income of minimum wage or less. Approximately 70% of the participants have at least one sibling, and the participants generally come from large families. Also, almost 60% of the families reside in provincial centers, and a tiny part live in smaller settlements than a district.

All of the qualifications that families expect to be in the professions they will choose are available in schools providing health-related education, and vocational health schools are also within this scope. Since the research was carried out in a vocational health school, the participants' families' socio-cultural characteristics prove our reliability results.

Although there is no significant difference between the channels from which they obtained information, 52.6% (n=294) of the participants stated that they obtained information about Covid-19 from public institutions' statements. It was evaluated that this was due to the fact that the group in which our research was conducted was well educated. The most crucial factor that stands out in the Covid-19 epidemic, which has become the constant of daily life, is the restriction of social relations, one-to-one contact, and the replacement of these in many areas by remote communication. In this context, internet usage has increased significantly, and it has preceded other sources in accessing the information on issues related to Covid-19. The internet is an essential source of information and has the capacity to influence users. However, the information available on the internet often lacks scientific rigor. This situation is a primary concern for societies, governments, and users. The internet has become an essential mechanism in the spread of misinformation, as in previous pandemics, this has adverse effects on public health behavior and health-related decision making. While sections of societies with low socio-cultural level generally obtain information about health from popular news websites on the internet, it is known that segments with higher socio-cultural level obtain this information from relevant institutions' channels. Our research findings also confirm this situation (Cuan-Baltazar et al., 2020; Singh et al., 2020).

In the analyzes, a statistically significant difference was found both in the total score of the Covid-19 phobia scale and in the sub-dimensions according to the gender of the participants. Accordingly, it was determined that the scores obtained were higher in females than males. This finding is in line with other studies and general psychiatric acceptances. Studies conducted around the world report that phobic disorders are more

common in women than men. Our study's analysis results are also in line with these findings (Fredrikson et al., 1996; Jalnapurkar et al., 2018).

It was found that the total scores of the Covid-19 phobia scale of the participants decreased in parallel with the increase in family income. The difference between income groups is also statistically significant, and this situation is different from the findings obtained in some studies comparing countries in terms of phobic disorders. In these studies, it is stated that phobic disorders are more common in high-income countries than in low-income countries. Studies conducted in low and middle-income countries indicate that phobic disorders decrease in parallel with increased family income. The findings that phobic disorders decreased in parallel with the increase in family income was reached in our study conducted in Turkey, which is in the middle-income group (Desalegn et al., 2019; Reinhorn et al., 2020; Wardenaar et al., 2017).

The participants' scale scores were examined according to their families' location, and a statistically significant difference was found in the psychological and social sub-dimension scores and the total score of the Covid-19 phobia scale. Scale scores are highest for participants whose families live in villages, lower for families residing in district centers, and lowest for those living in city centers. This determination supports our findings in the upper paragraph. It is known that the socio-economic levels of those living in villages in Turkey are lower than those living in larger administrative units and the findings that the survey scores increased due to the increase in family income support the findings regarding the settlements (TUIK, 2020).

### RECOMMENDATIONS

While Covid-19 was spreading around the world, information pollution regarding Covid-19 spread rapidly in the electronic environment. There is an abundance of videos, photos, and written data on every social media platform.

Some of those are;

- The coronavirus is produced in a secret government laboratory in China,
- Vaccines or therapeutic drugs that provide immunity against the virus have been developed,
- Some countries cover-up virus-related deaths,
- Some countries or individuals are deliberately spreading the virus.

None of this has been proven, and officials say online misinformation about Covid-19 is spreading significantly faster than the truth, and it is stated that it spreads about 70 percent faster than the real information. In addition to the efforts to contain the virus, a multi-faceted approach is needed to combat the spread of dangerous and potentially life-threatening misinformation. In the case of information shared electronically, before considering or sharing this information, it is necessary to take simple steps such as investigating the content's scientific basis, questioning whether it is based on scientific evidence, and checking the information's traceability to its original source.

In the context of increasing information pollution regarding the Covid-19 outbreak, EU institutions encourage the acquisition of information only from authorized sources to raise awareness of the dangers of information

pollution. Since its inception, legal action has been taken against approximately 3.5 million suspicious internet accounts targeting the Coronavirus controversy. It is crucial for the success of the struggle that the information about the pandemic is obtained through official channels whose reliability is not doubtful.

According to the findings obtained in our study, Covid-19 phobia is more common in rural areas, women, and places where the income level is relatively low. If the current Covid-19 pandemic can be managed effectively and quickly, its effects can be reduced. It is considered that the data obtained in our research on Covid-19 phobia will be useful in the fight against the Covid-19 pandemic in the Republic of Turkey.

### ETHICAL TEXT

In this article, the journal writing rules, publication principles, research and publication ethics, and journal ethical rules were followed. The responsibility belongs to the author (s) for any violations that may arise regarding the article. The permission of this study was obtained with the letter of University of Health Sciences Ethical Commission, dated December 17, 2020 and numbered 46418926 2020-350.

**Author(s) Contribution Rate:** In this study, the contribution rate of the first author is 50% and the contribution rate of the second author is 50%.

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