Coronavirus Pandemic

Information, attitudes and behavior of Turkish people concerning COVID-19

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Abstract
Introduction: This study aims to evaluate the knowledge, attitudes and behavior of people towards COVID-19 and to evaluate compliance with practices such as social isolation, curfews, mask use and hand hygiene.
Methodology: A month after the COVID-19 infection was observed in Turkey, a standard questionnaire link was sent to participants via the online questionnaire platform to determine the knowledge, attitude, and behavior of the public. The survey results of 503 people were evaluated.
Results: During the COVID-19 pandemic 81.2% of the participants stayed at home, 79.1% of the participants wore a mask, 74% of the participants expressed to be following social distancing rules, 54.1% confirmed the use of hand sanitizers and 43.9% confirmed the use of gloves (43.9%), which are considered to be personal protective measures. The knowledge of terms such as 'quarantine' and 'isolation' was 94% and 97.4% respectively and 37.2% of the participants were of the opinion that the COVID-19 virus was produced in a laboratory environment. Within the research group, a rate of 65.6% of the participants found their own knowledge of COVID-19 to be sufficient. The participants found the announcements of official institutions more reliable than the announcements on television programs, the internet and social media.
Conclusions: The public information on COVID-19 was found to be sufficient. In order to prevent the spreading of the pandemic, participants were partially compliant to rules such as staying at home, using masks, maintaining hand hygiene and social isolation. Compared to men, women's use of protective equipment was higher.

Introduction

The COVID-19 outbreak made history as the first pandemic caused by the SARS-CoV-2 virus, which emerged in Wuhan, Hubei province in China, on the 31st of December 2019 and spread to many countries of the world in a very short time [1]. A total of 44 patients with respiratory tract infection symptoms, such as fever, cough, shortness of breath, and pneumonia were examined, on the basis of which it was observed that their conditions were epidemiologically linked to the seafood market in the city. The novel Coronavirus was isolated by Chinese researchers on the 7th of January 2020 and was temporarily named "2019-nCoV". Coronaviruses (CoV), which were observed to be the cause of Covid -19, constitute a large family of viruses that can lead to diseases in humans and animals [1].

On the 13th of January 2020, cases were primarily reported in Thailand and afterwards in many other countries, such as Japan, South Korea and the United States. Immediately after the first positive case was detected in our country, on the 11th of March 2020, the WHO declared that the COVID-19 situation was a pandemic. According to WHO data of the 11th of June 2021, the number of people infected with SARS-CoV-2 was 174.061.995 and so far 3.758.560 people had lost their lives. It has been observed that the virus has spread all over the world, except for Antarctica [2]. The actual number of cases however, is thought to be much higher. In the early stages of the epidemic, there was a history of exposure at the Huanan Seafood Market, but later it was demonstrated that the virus spread from person-to-person. Currently, it is known that person-to-person spreading of the virus is the main driving force in the epidemic. It has been reported that the virus is spread by droplets produced when coughing, sneezing or speaking. Also, it has been observed that spreading by droplets mostly occurs between individuals whose distance is less than two meters and that direct manual

contact with infected droplets or contact with surfaces contaminated with infected droplets, which are thereinafter brought to the eyes, mouth or nose, will also cause direct transmission. A study conducted among hospital workers in Hong Kong reported that SARS-CoV-2 did not only spread by air but also under special conditions like aerosol-generating procedures such as bronchoscopy and intubation and exposure to the virus in unventilated environments for at least 30 minutes. Therefore, it is necessary to take airborne precautions during the ventilation of closed environments and aerosol-generating processes [3].

Based on the results of scientific publications and reports on the epidemic, the world's leading institutions in the fight against infections, which compose of primarily the World Health Organization (WHO), have recommended a number of measures to reduce infection and observed that prevention of infection is much more important than treatment. Case monitoring, surveillance and treatment protocols concerning COVID-19 have been created and updated over time in Turkey at various times [5]. In order for countries and institutions to control the epidemic, various public protective measures have been recommended in Turkey and around the world. These measures have even been made compulsory in order to prepare the capacity of the healthcare system to respond to the pandemic and plan accordingly. The use of masks, hand hygiene and curfew are the most commonly taken precautions [6].

Table 1. Demographic information on the participants.

Variables	n (%)
Gender	
Female	337 (67)
Male	166 (33)
Age	
18-27	95 (18.9)
28-37	150 (29.8)
38-47	170 (33.8)
48-57	70 (13.9)
58-67	14 (2.8)
68- ↑	4 (0.8)
Marital status	
Married	356 (70.8)
Single	124 (24.7)
Widow	23 (4.6)
Educational Status	
Primary school	43 (8.5)
High school	75 (14.9)
University	299 (59.4)
Postgraduate education	86 (17.1)
Family Type	
Nuclear family.	462 (91.8)
Extended family	41 (8.2)
Total	**503 (100)**

Despite unprecedented national and international measures to combat the epidemic, the success or failure of these efforts largely depends on public behavior. Specifically, public adherence to preventive measures set by governments is of prime importance to prevent the spread of the disease [7]. Early detection of public perceptions and false information is important for the course of the epidemic. Ensuring community participation in the epidemic will be possible with the development of participative mechanisms that are culturally appropriate and empathize with society with regard to the decisions to be taken. Participation mechanisms should be developed in order to quickly detect the perceptions and misinformation of the society regarding the measures to be taken in a pandemic and to enhance the right behaviors within the society [8].

The aim of this study is to evaluate the information, attitudes and behaviors of the Turkish people towards the COVID-19 pandemic, to assist healthcare workers, managers and institutions involved in the management of the epidemic and to contribute to the literature.

Methodology

In this descriptive study, the researchers applied the standard online survey in the Turkish language. Participants under the age of 18 and participants from outside Turkey were not included in the study. Only those who entered data between the 5th and 12th of April 2020 were included in the study. Since no previous research on public information, attitude and behavior with regard to COVID-19 has been conducted, at least 384 people were targeted in accordance with the 95% confidence interval [9]. The survey link was sent to people using social media and WhatsApp. Preceding the survey, consent was obtained from the participants. After the approval process, 11 demographical data questions and 11 questions about information, attitude and behavior were asked. Information, attitude and behavior questions included a 5-point Likert scale. The average survey application time was 5 minutes. A total of 521 people participated in the questionnaire and 18 people were excluded due to incomplete data entry, participation outside of Turkey and the age factor. A total of 503 people were evaluated. Permission for carrying out the study was obtained from the Scientific Research Platform, acting on a special permission for research on COVID-19 by the Ministry of Healthcare. Ethical approval was obtained from the Ethics Committee of the Kayseri City Hospital with reference number 83. Frequency distributions, percentages and statistical results of the answers given to the questions in the survey were examined. The statistical analyses of

the survey were carried out using the SPSS 25 package program. In the evaluation of differences between independent variables concerning the questions on information, attitudes and behaviors towards COVID-19, the chi-square test was used. A significance level of $p < 0,05$ was considered to be statistically significant. Limitations of this study were formed by the possibility to receive the survey link and to fill out the survey via the online system.

Results

The number of people who responded to the survey was 503. The average age of the participants in the study was 37.7 ± 10.5 (min: 18; max: 70), the average number of people living with family was 3.8 ± 1.3 people (min:1; max:10) (Table 1). Among the respondents, 37.4% had a healthcare employee family member. A percentage of 17.1% of the participants had individuals over the age of 65 in their family. The rate of individuals with a chronic disease was 42.9%. A percentage of 65.6% of the participants perceived their

level of knowledge about COVID-19 to be sufficient, while 2.8% of the research group found the level of knowledge to be insufficient, whereas 31.6% found their knowledge to be partially sufficient.

Whereas 81.2% of the participants reported that they stayed at home during the COVID-19 pandemic in accordance with the social isolation rules recommended by the Ministry of Healthcare and the World Health Organization, 18.8% stated that they did not comply with this recommendation because they had to continue working. The use of personal protective methods among those who had to go outside were as follows: wearing a mask (79.1), complying with social distancing rules (74%), using hand sanitizers (54.1%), using gloves -although daily use is not recommended by scientific commissions- (43.9%). Women had a higher percentage of mask and glove use than men ($p < 0.05$). The 38-47 age group, postgraduates and those with healthcare employees in their family showed less compliance with the curfew ($p < 0.05$). It was determined that married people, those in the 28-37 age

Table 2. Personal protective measures for COVİD 19 and variables affecting the use of materials.

Variables	Precautions taken to protect from Covid-19														
	Not going outside			Use a mask			Use gloves			Use hand sanitizer			Social distancing		
	n	%	χ^2	n	%	χ^2	n	%	χ^2	n	%	χ^2	n	%	χ^2
Sex															
Female	279	82.8	0.151	275	81.6	0.052	160	47.5	0.023	174	51.6	0.118	249	73.9	0.96
Male	129	77.7		123	74.1		61	36.7		98	59		123	74.1	
Age															
18-27	90	94.7		75	78.9		36	37.9		43	45.3		52	54.7	
28-37	124	82.7		111	74		83	53.3		89	59.3		127	84.7	
38-47	120	70.6	0.018	140	82.4	0.169	76	44.7	0.038	100	58.8	0.964	130	76.5	0.238
48-57	59	84.3		57	81.4		24	34.3		33	47.1		56	80	
58-67	11	78.6		11	78.6		2	14.2		5	35.7		5	35.7	
68 and higher	4	100		4	100		0	0		2	50		2	50	
Marital status															
Married	280	78.7		279	78.4		167	46.9		205	57.6		278	78.1	
Unmarried	111	89.5	0.222	99	79.8	0.471	44	35.5	0.075	57	46	0.014	76	61.3	0.009
Divorced or widowed	17	73.9		20	87		10	43.5		10	43.5		18	78.3	
Educational status															
Primary-Middle school	41	95.3		35	81.4		13	30.2		13	30.2		20	46.5	
High school	65	86.7	0.001	54	72	0.314	32	42.7	0.578	38	50.7	0.001	49	65.3	0.001
University	243	81.3		237	79.3		146	48.8		168	56.2		232	77.6	
Postgraduate	59	68.6		72	83.7		30	34.9		53	61.6		71	82.5	
Type of family															
Core family	376	81.3	0.581	366	79.2	0.86	204	44.2	0.739	253	54.8	0.3	348	75.3	0.019
Extended family	32	78		32	78		17	41.5		19	46.3		24	58.5	
Healthcare workers among family members															
Yes	124	66	0.001	149	79.3	0.956	79	42	0.504	103	54.8	0.805	140	74.5	0.84
No	284	90.2		249	79		142	45.1		169	53.7		232	73.7	
Sufficient information on Covid-19															
Yes	261	79.1		255	77.1		141	42.7		187	56.7		251	76.1	
Partially yes	13	93	0.114	11	78.6	0.145	6	42.9	0.41	6	42.9	0.134	8	57.1	0.206
No	134	84.3		132	83		74	46.5		79	49.7		113	71.1	

group and women used more gloves than others ($p < 0.05$). Married people and those with a postgraduate education used more hand sanitizer than others ($p < 0.05$). Singles, primary-secondary school graduates and those living in extended families showed less compliance to social distancing rules ($p < 0.05$) (Table 2).

Survey participants reported that they trusted official sources the most, among the COVID-19 information sources (77.4%), whereas they trusted posts from message groups (65.4%) and social media posts (64.4%) the least (Table 3).

Participants were asked questions about how they might feel and what they might think if they had an acquaintance or relative diagnosed with COVID-19. A percentage of 48% of the participants would hope for a speedy recovery, 72.6% would be of the opinion that the health of their acquaintance would be at risk and that they would worry for that person. A rate of 53.1% of the participants would worry that they would lose their acquaintance, 47.9% would be worried that they would get infected themselves as well. A percentage of 64.4% of the participants reported that they would not be able to think of something else than infected people and 59.2% would think they would get infected because they were not sufficiently cautious (Table 4).

Participants in the survey were asked about their knowledge and opinions on the scientifically proven and unproven statements concerning COVID-19, especially social media messages. A percentage of 88.7% of the participants were of the opinion that COVID-19 cases first emerged in China, 62.6% were of the opinion that it was transmitted by wild animals and 84.5% were of the opinion that it was transmitted by respiration. A rate of 97.4% of the participants had heard and knew the meaning of the term 'quarantine' and 94% had heard and knew the meaning of the term 'isolation'. A percentage of 88.7% stated that they knew the symptoms of COVID-19 and 64.2% stated that they were of the opinion that they could be protected against the disease with proper nutrition (Table 5).

Survey participants were asked about the methods they implemented to protect themselves and their family members from the COVID-19 infection. A rate of 98.6% reported that they wash their hands for at least 20 seconds when they come home, whereas 96.8% of the participants would take their shoes off before entering the home. A percentage of 90.9% of the participants stated to clean their homes with bleach and 40.8% with vinegar. A rate of 87.9% of the participants reported that they kept their groceries outside or on the balcony and 51.6% stated that they washed and cleaned the groceries (Table 6).

Participants were asked whom they would inform if they were diagnosed with COVID-19. Among the participants willing to share this information, 52.7% would inform everyone, 25.2% would inform their family, 14.7% their colleagues, 4.6% their supervisors at work and 1.7% would inform close friends and healthcare workers.

Table 3. Level of confidence in sources informed about COVID-19.

Levels of trust	Information sources for COVİD-19									
	Official statements		Publications for the television channels		Internet news sites		Social media shares		Shares from message groups	
	n	%	n	%	n	%	n	%	n	%
I trust	389	77.3	252	50.1	163	32.4	85	16.9	73	14.5
I have no idea	27	5.4	111	22.1	99	19.7	94	18.7	101	20.1
I don't trust	87	17.3	140	27.8	241	47.9	324	64.4	329	65.4

Table 4. Emotions and thoughts about having a COVİD-19 infected relative.

Personal feelings and thoughts	I agree		I don't know		I disagree	
	n	%	n	%	n	%
I think he/she will recover as soon as possible	244	48.5	182	36.2	77	15.3
I think he/she health is in danger	365	72.6	66	13.1	72	14.3
I think I'll lose the ones I love	267	53.1	94	18.7	142	28.2
I can't sleep with the thought that I might be infected	241	47.9	80	15.9	182	36.2
I can't take myself out of the thought of who else would be infected	324	64.4	66	13.1	113	22.5
I think he/she didn't take enough protective measures	298	59.2	100	19.9	105	20.9

Table 5. Public knowledge and thoughts on COVİD-19 disease.

Knowledge and thoughts	I agree		I don't know		I disagree	
	n	%	n	%	n	%
The virus first appeared in China	446	88.7	32	6.40	25	4.9
The virus first appeared in America	32	6.4	184	36.6	287	57.0
Contaminated by wild animals	315	62.6	101	20.1	87	17.3
İt is transmitted by the airway	425	84.5	37	7.4	41	8.2
İt is transmitted by the contact	474	94.2	19	3.8	10	2
İt is transmitted by the water and food	161	32	147	29.2	195	38.8
There is a vaccine	65	12.9	163	32.4	275	54.7
There is not treatment	91	18.1	131	26	281	55.9
Can be protected with proper nutrition	323	64.2	78	15.5	102	20.3
I know there are profilaktif drugs	176	35	180	35.8	147	29.2
I know the symptoms of the disease	446	88.7	45	8.9	12	2.4
I know. what is isolation?	473	94	25	5	5	0.1
I know. what is quarantine	490	97.4	12	2.4	1	0.2
I don't think it will be transmitted through animals in the house	227	45.1	145	28.8	131	26
I think the cause of this disease is a laboratory-produced virus	187	37.2	215	42.7	101	20.1
I think our elders in isolation/quarantine should not be left alone	163	32.4	73	14.5	267	53.1
I would like to contact our relatives in isolation/quarantine	304	60.4	44	8.7	155	30.8
I can isolate myself	461	91.7	27	5.4	15	2.9

Table 6. Behavior to protect family members from COVID-19 infection.

Types of applications	I agree		I don't know		I disagree	
	n	%	n	%	n	%
When I need to get out of the house. I wash my clothes right away.	416	82.7	17	3.4	70	13.9
When I come home from outside. I wash my hands for at least 20 seconds	496	98.6	3	0.6	4	0.8
I keep the products we bring from shopping for a while outside the balcony or door.	442	87.9	18	3.6	43	8.5
I wash all packaged/unpacked washable shopping products	260	51.7	34	6.8	209	41.5
I leave our shoes out of the door	487	96.8	7	1.4	9	1.8
I only get guests on weekends.	11	2.2	17	3.4	475	94.4
I clean our house with vinegar water	205	40.8	64	12.7	234	46.5
I clean with bleach	457	90.8	23	4.6	23	4.6

Table 7. Effect of the level of belief that the virus causing covid-19 a is produced in the laboratory on demand for the Covid-19 vaccine.

Opinions on the statement "Covid-19 was created in a laboratory"	Opinions on getting a COVID-19 vaccine										χ^2
	I will definitely get vaccinated		No opinion		I might get vaccinated		I will not get vaccinated		Total		
	n	%	n	%	n	%	n	%	n	%	
I absolutely do not agree	41	44.6	24	26.1	12	13.0	15	16.3	92	18.3	
I do not agree	40	42.1	32	33.7	14	14.7	9	9.5	95	18.9	0.001
No opinion	105	48.8	68	31.6	34	15.7	8	3.7	215	42.7	
I agree	38	61.3	18	29.0	5	8.1	1	1.6	62	12.3	
I absolutely agree	24	61.5	10	25.6	3	7.7	2	5.2	39	7.8	
Total	248	49.3	152	30.2	68	13.5	35	7.0	503	100.0	

The research group was asked whether they would get vaccinated if a Covid-19 vaccine would be developed. A percentage of 49.3% would definitely get vaccinated, 30.2% had no opinion, 13.5% would consider it and 7% would not get vaccinated. More than 60% of those who were of the opinion that COVID-19 was developed in a laboratory environment reported their wish to get vaccinated. A percentage of 16.3% of those who did not believe that the virus was produced in a laboratory environment stated their wish not to get vaccinated. This percentage was found to be higher than the others ($p < 0.05$) (Table 7).

Discussion

People affected by the epidemic are likely to have similar behaviors and concerns, regardless of the country. When the first case was observed in Turkey, the government called on the people to stay at home in order to prevent a high transmission of the infection and a rapid increase in the number of cases. From the beginning of the epidemic, the government of Turkey implemented measures with regard to the epidemic and tried to encourage a high level of public participation. After the World Health Organization declared an International Public Health Crisis on the 30th of January 2020, measures such as the cancellation of flights, repatriation of Turkish people from abroad and the application of a 14-day quarantine period for travellers were taken and could be observed by the public. As of February 2020, the measures became even more stringent and elective surgeries, dental practices and sports events were cancelled. In March 2020, curfews were imposed on those over the age of 65 and afterwards for those under the age of 20. Market places and shopping centers, barbers, hairdressers, cafes and restaurants were closed and intercity travels were restricted. Other workplaces were recommended to run at a minimum capacity of employees. Until June 2020, a full-weekend curfew was imposed [10]. It has been observed that among the survey participants there was a high level of compliance with stay-at-home measures, excluding those who had to continue their work. Among the survey participants the percentage of those who were obligated to work in the healthcare sector and general supply chain was 18.8%. The rate of those who went to work occasionally thanks to flexible working hours was 20.9%. In our study, the rate of compliance with the stay-at-home rule was 81.2% and the lowest stay-at-home behavior was within the 38-47 age group ($p < 0.05$). It is estimated that this age group had to work more often. In the study conducted by Barari *et al*. in Italy, the rate of compliance with the stay-at-home measures was 88.8%. In the same study, it was concluded that the younger middle age group was the least compliant with the stay-at-home rules, which was similar to the results of our study [11].

Within the research group 65.6% of the participants found the own level of knowledge on COVID-19 to be sufficient. Whereas 2.8% was of the opinion that their level of knowledge was insufficient, 31.6% found it to be partially sufficient. In a study conducted in Saudi Arabia, the level of public knowledge about COVID-19 was found to be high [7].

Under the current conditions, where information is very accessible, access to correct information is also very important. In particular, the transfer of, although very limited, reliable data about diseases such as COVID-19 by the government to the public will increase the participation of the people in combating the epidemic. The percentage of survey participants, who were of the opinion that the announcements of official institutions was more reliable than television programs, internet news, social media messages and message groups was higher. In a public study conducted in Turkey, it was concluded that the most reliable sources of information in the field of healthcare were healthcare personnel, pharmacists, internet, social media, family or friends, patient groups and books. The most reliable source was found to be healthcare employees [12]. In an Italian study about the level of public knowledge and reliability of information sources concerning COVID-19, it was concluded that the public generally had sufficient information but did not trust the information provided by the government [11]. It was also stated that in Malaysia, the public was suspicious of information sources concerning COVID-19 [13]. In China, women were more informed than men. In our study we did not differentiate between sexes. It was also observed that the public preferred to get information from the official website of the Chinese National Health Commission and the official account of the Wuhan Health Commission [14]. In Norway, it was reported that news websites (95%), official government websites (83%) and social media (63%) were used as information sources during the COVID-19 epidemic. It has been reported that Norwegian people trust the Norwegian Institute of Health (88%), the Norwegian Ministry of Health (38%), the Norwegian government (34%) and the European Center for Disease Prevention and Control (33%). In the same study, it was also reported that respondents trusted general practitioners (10%) and their local hospitals (12%) the least [15]. The trust of Norwegian, Chinese and Turkish people in official

sources regarding the pandemic was observed to be similar.

During epidemics, it is recommended that people primarily use protective equipment in order to protect themselves and secondly to prevent the transmission of any existing infections. Evidence has shown that the COVID-19 virus is the most contagious in the upper respiratory tract (nose and throat) in the early stages of the disease [16]. In our study, 79.1% of the participants reported that they would wear masks when going outside. It is expected that the actual rate of public mask use is higher. In order to fully ensure the use of masks, the Turkish Government has imposed rules on mandatory use thereof and distributed free masks at the end of April 2020. The mask usage rate in this study is expected to increase after use thereof is made compulsory. In the study conducted in China, the usage rate of masks was 98% [14]. It is believed that the usage rate in China is higher due to the local mandatory mask rules. It is not desirable that the public applies protective measures merely for reasons of obligation or prohibition. First of all, people are expected to take responsibility and adopt measures to protect their own health. However, it is possible that the disease is not fully understood and the lack of trust in information may cause behavioral differences. In our study, it was observed that women paid more attention to the use of masks than men ($p < 0.05$). In a study conducted with a group of healthcare professionals in Turkey, the rate of use of personal protective equipment was found to be higher in women, as was also proven in our study [17]. The rate of personal protective equipment use among female employees in the radiology unit was also higher than that among males [18]. Low percentages of protective equipment use in China were observed among men, students, those living outside of Wuhan and those with little level of information [14]. In the USA, it has also been reported that women took the infection more seriously than men [19].

Among the knowledge questions prepared for the participants in our study, the percentage of those who stated that the disease was transmitted through respiration was 84.5%. This rate was found to be 98.9% in Malaysia [13]. A percentage of 94.2% of the participants reported that they were of the opinion that they would get infected with COVID-19 through physical contact. The percentage of those who thought that contamination through water and food was possible was 32%. Data from published epidemiological and virology studies provide evidence that COVID-19 is transmitted primarily from symptomatic people via respiratory droplets when in close contact, through

direct contact with infected persons or through contact with contaminated objects and surfaces [20]. Although there is no sufficient research carried out in this field, the possibility of transmission by fecal-oral route is also discussed [4]. A percentage of 62.6% of the participants agreed with the statement that COVID-19 was transmitted from wild animals to humans. In Malaysia, the percentage of people who stated that COVID-19 is a disease transmitted from animals was 68.5% [13]. A study carried out in the USA showed that almost one third of the participants reported that they could not correctly describe the symptoms (28.3%) or the ways to prevent infection (30.2%) [19].

While 18.1% of the participants in our study stated that there was no treatment for COVID-19 at the time of the research, the percentage of persons who were of the opinion that a vaccine was available was 12.9% (Table 5). There is no global evidence-based treatment regimen recommended for the treatment and prophylaxis of COVID-19 yet. However, many randomized controlled trials are being conducted and planned. COVID-19 may be asymptomatic or may progress with severe respiratory failure [21]. Rapid development of a successful vaccine is important for COVID-19, for which no effective treatment exists yet. The development of a vaccine that has been tested for efficacy and safety is a difficult and lengthy process. In the first 6 months of 2021, a large number of vaccines have started to be used all over the world, in an unusual situation such as the COVID-19 epidemic, by restricting the clinical trial phases or accelerating the approval process for the release of the vaccine. All of the COVID-19 vaccines currently available in the world and in Turkey come in 2 doses. According to WHO-data of the 14 of June 2021, 2,187,874,534 doses of vaccines were administered [2]. This process developed very fast. Among the participants, 49.3% answered the question "Would you get vaccinated if a COVID-19 vaccine would be developed?" positively, while 7% stated that they would not get vaccinated. Due to the rapid production of the vaccine, the social media accounts sharing different content about the vaccine and scientists, several issues regarding public trust concerning the vaccine arose. According to the results of a joint study conducted in the United Kingdom and Turkey, the doubt about and rejection of the vaccine is substantial. In the same study, those who believed in the origin of COVID-19 were more likely to agree to vaccination. However, in our study, it was observed that those who did not believe that COVID-19 was produced in a laboratory environment or those who did not express their opinion were less likely to get vaccinated

($p < 0.05$) (Table7) [22]. Vaccine development studies are carried out and information is shared collectively all over the world. However, communities that take a stance against vaccines emerge from time to time. Due to the global rapid increase in vaccine rejection cases in recent years, which has reached dangerous levels, the World Health Organization decided in 2019 to include the "anti-vaccine" problem at the top 10 of global health problems it plans to solve [23].

In our study, 53.1% of the participants were worried that they would lose their relatives who contracted the virus and 47.9% reported that they were afraid of getting infected themselves. A percentage of 14.2% of the people in the United States were of the opinion that they would die due to COVID-19 [20]. It was found that a large number of studies have been carried out for assessing anxiety and concerns due to COVID-19 within the community and that anxiety has increased. Studies have shown that reasons such as health concerns, isolation from social life, inability to maintain habits and financial problems may lead to anxiety, sleep and eating disorders, depression and even suicide [24-28].

Conclusions

According to the results of the study, people living in Turkey were mostly of the opinion that they had a sufficient level of knowledge about COVID-19 and that they partially complied with rules such as staying at home, using masks, taking care of hand hygiene and social isolation to protect from the pandemic in accordance with the recommendations of the government and healthcare authorities. It was also determined that women apply personal hygiene and use protective equipment more than men. In general, the idea of getting infected, a close one getting infected and losing loved ones is very much present among the participants. The statements made by official sources were a trusted source of information. Public support and motivation is needed to combat COVID-19 infection. Through transparent information sharing and health education by health managers and scientists, the public's supportive efforts to break the chain of infection will increase.

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