Research Article

Anxiety Levels of General Surgery Patients and Frequency of Visiting the Hospital in Covid-19 Pandemic Period

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Abstract

The Covid-19 pandemic outbreak first appeared in Wuhan, China, towards the end of 2019. As of November 2021, approximately 260 million people have been infected with the corona virus and more than 5 million people have died. There are many studies published on various topics related to the Covid-19 epidemic around the world. Anxiety and anxiety disorders, especially in this process, are some of the most common diseases. However, there have not been many studies on anxiety disorders in general surgery patients. The main purpose of this study is to examine the anxiety levels of a group of general surgery patients in our country during the Covid-19 epidemic and the frequency of their anxiety levels coming to the hospital. Demographic information form, STAI forms TX-I and TX-II were used as data collection tools in the study. According to the findings obtained as a result of data analysis, it was determined that there is a moderate negative correlation between STAI scores and income levels. In other words, patients with high income levels have low level of anxiety. According to the results obtained within the scope of the 95% confidence interval, the STAI scale parts and the total scale results were found to be statistically significant (p value < 0.05).

Keywords: *Anxiety, Covid-19, General surgery patients.*

1. Introduction

The Covid-19 pandemic outbreak originated in Wuhan, China, and was first identified as a novel coronavirus by the Wuhan Municipal Health Commission in December 2019. The first news of the epidemic in the media was announced by World Health Organization (WHO) in early 2020. By the end of 2021, about 280 million people

were confirmed infected and 5.4 million died. New variants of the virus, Delta and Omicron, have caused a significant increase in cases and deaths.

After becoming a global health problem, the pandemic known as Covid-19 or Corona is severely impacting lifestyles in every country around the world. Despite all precautions were taken, the virus propagation rate and area of effect could not be brought to the desired level. The top three countries with the highest number of infections and deaths are the United States, India and Russia. These three countries account for approximately 45% of all cases and deaths.

Due to the global impact of corona disease, many countries are taking various precautions to prevent the spread of the disease and ensure its control [1]. Precautions such as quarantining, closing schools, social distancing, and setting up shelters have severely impacted daily life and disturbed people's mental health. Chief among these are healthcare workers, who have struggled the hardest in the fight against the disease and have been one of the hardest-hit communities in the pandemic duration.

Although the disease caused by Covid-19 and its full impact have not been well covered in research [17], some studies show that people have negative effects on their anxiety levels and worsen their mental health [12, 13, 16, 19] .Researches show that depression and anxiety are the main causes of pandemics [3, 10].

The most common symptoms of COVID-19 are recurrent persistent cough and/or body temperature above 37.8°C. Ageusia and anosmia are also common symptoms in the early stages of diagnosis (Livingston and Bucher, 2020). Most patients have no symptoms or only mild symptoms, but about a quarter of patients develop severe symptoms and 5% have significant symptoms. Clinical manifestations and mortality were higher among the elderly, those with comorbidities such as respiratory and cardiovascular disease, males, and smokers [15]. Although there is currently no approved or proven effective treatment against COVID-19, several potential treatment trials are underway.

Research on anxiety and anxiety issues in cancer patients with Covid-19 shows that patients have a severe impact on their health. SARS-CoV-2 precautions (per national/regional guidelines) to protect patients and medical staff and to establish safe circuits for treatment or transport, whether in general hospitals or oncology facilities.) must be performed. These actions also greatly affect available resources and routine processes that must be considered to avoid system downtime [4].

Kong et al. [12]. examined the prevalence and factors associated with anxiety and depression with hospitalized Covid-19 patients. A total of 144 patients diagnosed with Covid-19 were included in the study. Data on depression and anxiety symptoms were collected using the hospital anxiety and depression scale, and social support was assessed in the applicant patient with using perceived social support scale in their research. Multivariate linear regression analysis was used to identify factors associated with anxiety and depression symptoms. Data analysis showed that 34.72% and 28.47% of the

144 participants exhibited anxiety and depression symptoms of Covid-19 patients, respectively. Also, It was found that less social support was associated with stronger anxiety and depressive symptoms in Covid-19 patients. Using multiple linear regression analysis, it was seen that gender, age, oxygen saturation and social support were associated with anxiety for Covid -19 patients. In addition, depressive factors were recorded according to age, family corona infection, and social support. As a result, anxiety and depression features have been observed in hospitalized Covid-19 patients. In their study, Shanafelt, Ripp, and Trockel [1]. focused on how the corona disease Covid-19 affects people in different groups and communities. They briefly discussed the growing concerns of healthcare workers due to their experience battling Corona. The cause of staff concern was investigated. Key concerns for healthcare workers include access to appropriate personal protective equipment, transmission and spread of COVID-19, resulting anxiety, issues related to working hours and their kids' issues with supporting individual and family needs, and lack of access to modern communication ways. It was expressed that the sources of concern ought to be settled in arrange to decrease and resolve the concerns among healthcare workers.

In another study on this topic, Azoulay et al. [2] rated health care workers working during coronavirus as having higher morbidity and higher risk of prevalence of anxiety, depression, and worker traumatic symptoms. They analyzed data collected from 21 intensive care units in France. The Hospital Anxiety and Depression Scale and the Peritraumatic Dissociative Experience Questionnaire were used to identify factors independently associated with reported mental health disorder symptoms. A response rate of 67% was calculated from 1,058 participants. The average age of participants was 33 years old, 71% of them were female, and 68% of them were identified as nurses. The prevalence of anxiety, depression, and traumatic dissociation symptoms was 50.4%, 30.4%, and 32%, respectively, with the highest rates observed among nurses. As a result, the healthcare worker faces high emotional stress during her COVID-19 outbreak. It was emphasized that hospitals, their managers, and staff need to develop strategies to overcome modifiable determinants of adverse symptoms of mental illness.

Studies on Covid-19 in Türkiye, the anxiety and anxiety issues that individuals are suffering from them have found that patients have low anxiety levels and their trait anxiety level was moderate [5-6,18]. Sakaoglu et al. [18] included health workers working in hospitals in Istanbul in 2020 in their study. Conducted with a total of 255 employees, the study examined anxiety and anxiety disorders caused by Covid-19 in healthcare workers. Participant responses to survey questions indicated high levels of anxiety among healthcare workers. One of the main reasons is believed to be the uncertainty caused by the pandemic. Regarding gender, they found that women had higher anxiety scores. However, an analysis of the age of the participants found no statistically significant difference, despite the higher anxiety levels of the elderly. With their research

we can see that there is not much difference according to participants' education level. Married people have been found to have higher levels of anxiety than single people. At the end of the study, researchers determined that one of the most important ways to treat and reduce anxiety is through family support.

2. Materials and Methods

In our research, data were collected from a total of 192 patients. All patients included in the study consisted of women undergoing breast treatment. A declaration of consent was signed by the patient to participate in the study and the information required for data collection was provided.

Patients who consented to participate in the study were asked to answer data collection tool questions. Patient responses were transferred as raw data to a computer and evaluated using statistical analysis techniques. The data investigated in this study were performed using two different investigation instruments. The first data collection tool is the personal identification form. This form has 23 questions. Forms were created and applied by researchers. This form collected demographic information about patients, their mental and physical illnesses, the impact of the Covid-19 pandemic on their lives, and their struggles with illness during the pandemic process. The second instrument used for data collection is the State-Trait Anxiety Scale (STAI-TX). The STAI-I and STAI-II scales were combined. This scale was used to measure the patient's condition and anxiety scales. The scale consists of a total of 40 items. Scale questions will be answered according to the statement of the 4-Likert scale. Responses are numbered from 1 to 4 and analyzed.

The first 20 items of the STAI scale consist of items related to national qualifications and the last 20 items related to continuity. The STAI scale he Spielberger (1070) was developed and translated into Turkish by Öner and Le Comte in 1985 [21]. A higher score from the scale indicates a higher level of anxiety and a lower score indicates a lower level of anxiety.

The data obtained were analyzed with the program SPSS v.22. Data analysis first presented demographic data using percentages and frequencies. The scores obtained from the scales were then analyzed using descriptive statistical methods.

Results obtained from the STAI scale were first presented using descriptive analysis. Data were presented using inferential statistical techniques. Values of $0.05 < 0.05$ in data analysis. p was accepted as statistically significant. The results obtained were analyzed and compared with previous studies.

3. Results

The results obtained as a result of data collection and analysis are briefly presented in this section. The results obtained from the demographic information form in the personal data collection form used as the first data collection tool are given in Table 1.

Table 1: Demographic Information the Patients Included in the Study

Demographic Information		N	%	Average
Gender	Male	0	0.0	
	Female	192	100.0	
Age	18-25	46	25.3	42.2
	26-35	88	48.4	
	36-45	44	24.2	
	45+	4	2.2	
Graduate	Secondary or High School	54	29.7	
	Bachelor Degree	92	50.5	
	Master Degree	26	19.8	
Marital Status	Married	62	34.1	
	Single	120	65.9	
Account of Kids	0	92	50.5	1.9
	1	34	18.7	
	2	46	25.3	
	3	10	5.5	
Monthly Income (TL)	0-1000	14	7.7	5.928.60
	1001-3000	34	18.7	
	3001-5000	56	30.8	
	5000+	78	42.9	
Job	Educator	44	24.2	
	Healthcare Worker	58	31.9	
	Housewife	24	13.2	
	Other	56	30.8	
Have you delayed your treatment due to Covid-19?	Evet	76	41.8	
	Hayır	106	58.2	

According to the results shown in Table 1, all subjects included in the study were female. We can see that the average age is 42.2 years old. By age group, 26-35 years old

was the most common. In terms of education, we found the majority to be Bachelor Degree graduates (92 people, 50.5%) or college graduates (26 people, 19.8%). 120 of them are single, but only 62 of them are married. Ninety-two patients were childless. 46 patients she has two children. The average number of children is her 1.9. The average monthly income he calculated was 5,928. The majority of patients earn between 3,001 and 5,000 TL per month. Finally, a survey of their expertise revealed that 58 were healthcare professionals and 56 patients worked in a variety of fields. In Table 1, we also asked patients if they had discontinued treatment due to Covid-19. 76 (41.8%) patients answered yes to this question, while 106 (56.2%) patients answered that the treatment was ineffective.

The results obtained from the STAI scale are shown in Table 2. The results presented in the table are presented by two different methods, STAI-I and STAI-II. When the STAI-I (Stateness) score was examined, the lowest score was 21, the highest score was 56, and the range was 45. The mean was 44.8 with a standard deviation of 6.5.

Table 2: Scores Obtained from the STAI Scale

	N	Ranj	Min.	Max	Mean	Std. S.
STAI_I	182	45.0	21.0	56.0	44.8	6.5
STAI_II	182	48.0	20.0	68.0	48.8	7.3
STAI_T	182	76.0	41.0	117.0	93.6	12.3

When examining the results obtained in the STAI-II (Continuity) section, a minimum score of 20 and a maximum score of 68 were calculated. The mean score was 48.8 with a range of 48. The mean was 93.6, the minimum value was 41, the maximum value was 117, the range was 76, and the standard deviation was 12.3 in STAI_T.

The results obtained according to the significance and p-value analysis using the SPSS program are shown in Table 3. According to the results obtained within the 95% confidence interval, the STAI scale parts and the total scale results were found to be statistically significant (p value < 0.05).

Table 3: STAI Scale Scores Significance Results

	t	df	Sig. (2-tailed)	Mean Difference	%95 GA ile Lower	Upper
STAI_I	90.241	181	.000	48.79	47.72	49.86
STAI_II	90.241	181	.000	48.79	47.72	49.86
STAI_T	90.241	181	.000	97.58	95.45	99.72

The results obtained by analyzing the STAI scale response results are shown in percentages in Figure 1. Accordingly, a total of 11% participants received 96 points. Afterwards, the percentages of the participants with the highest scores (88 points and 106 points) were calculated as approximately 7 percent.

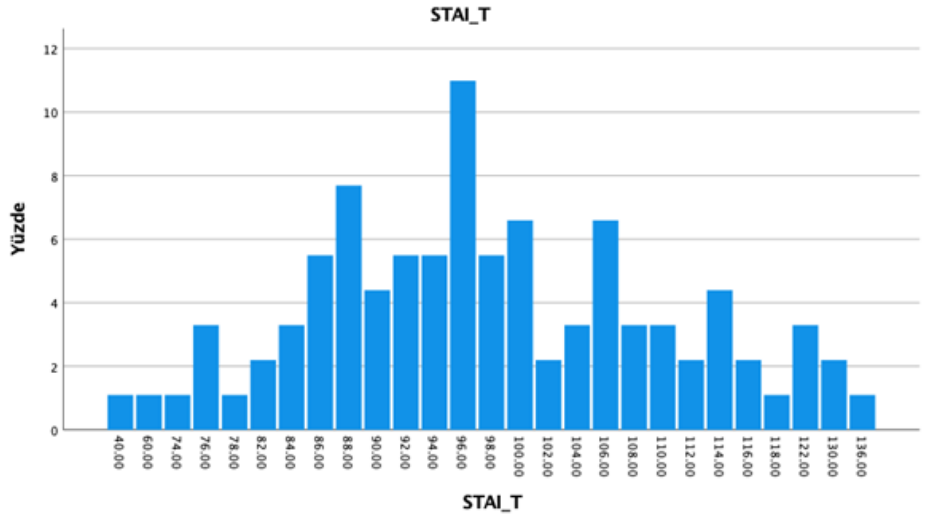

Figure 1: STAI Total Score Frequency Distributions

Correlation coefficients, statistical significance and confidence intervals between variables used in the study are shown in Table 4. According to the results obtained, the highest correlation coefficients were between date of birth and number of children (0.47), education and occupation (-0.33).

Table 4: Correlation Levels And Confidence Intervals Results Between Study Variables

		Birth	STAI_T	Education	Job	Marital Status	Kids	Income
Birth	Pearson K.	1	-.064	.089	-.118	-.273**	.467**	.248**
	Sig. (2-tailed)		.390	.232	.112	.000	.000	.001
	N	182	182	182	182	182	182	182
STAI_T	Pearson K.	-.064	1	-.004	-.037	-.037	-.036	-.206**
	Sig. (2-tailed)	.390		.956	.621	.624	.633	.005
	N	182	182	182	182	182	182	182
Education	Pearson K.	.089	-.004	1	-.332**	.231**	-.250**	.137
	Sig. (2-tailed)	.232	.956		.000	.002	.001	.065
	N	182	182	182	182	182	182	182
Job	Pearson K.	-.118	-.037	-.332**	1	-.226**	.088	-.100
	Sig. (2-tailed)	.112	.621	.000		.002	.235	.180
	N	182	182	182	182	182	182	182
Marital Status	Pearson K.	-.273**	-.037	.231**	-.226**	1	-.591**	-.128
	Sig. (2-tailed)	.000	.624	.002	.002		.000	.085
	N	182	182	182	182	182	182	182
Kids	Pearson K.	.467**	-.036	-.250**	.088	-.591**	1	.180*
	Sig. (2-tailed)	.000	.633	.001	.235	.000		.015
	N	182	182	182	182	182	182	182
Income	Pearson K.	.248**	-.206**	.137	-.100	-.128	.180*	1
	Sig. (2-tailed)	.001	.005	.065	.180	.085	.015	
	N	182	182	182	182	182	182	182

In addition, according to the results in Table 4, it was determined that there was a moderate negative (-0.21) correlation between STAI scores and income levels. According to this result, patients with high income level have low level of anxiety. In addition, it was determined that there was a statistically significant relationship between STAI results and only arrival levels.

4. Discussion and Conclusion

The first result obtained as a result of the study is that all of the participants included in the study were women. For this reason, when the STAI results were examined, the gender variable was not included. The average age of the women was 42, indicating that the participants had an average age.

When the education level of those included in the study was examined, the fact that most of them had a Bachelor's and Master's degree showed that they were highly educated. When the education level of women in our country is examined, it is seen that the participants of the study have a high education level. This also explains her monthly income of over 5,000 TL. The majority of participants are single, work professionally in the medical field, and most have no children. The majority of patients (N=106, 56.2%) did not discontinue treatment due to Covid-19. The results indicate that most patients are less psychologically affected by Covid-19.

Another result was that the scores achieved on the STAI scale ranged from 41 to 117 overall, with a mean of 93.6. The mean scores obtained were higher than the scores

from 41 to 80, so it was clear that they had high levels of anxiety. Additionally, approximately 11% of the participants scored a score of 96, indicating a high level of anxiety. We found that the majority of participants had high levels of anxiety, corroborating previous similar studies [7,11,22].

The results of the significance of the sum of STAI sites and STAI scores obtained revealed statistical significance between the scores obtained. These results were at levels similar to those of previous studies [9, 13].

Finally, variables collected from the participants were examined for correlation and significance levels of STAI results. The results obtained showed moderate correlation coefficients between demographic characteristics, income level, and STAI level, and this relationship was statistically significant. However, this result differs from that of previous studies [8, 23].

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