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The Effect of Anxiety Levels of Patients with Respiratory Diseases on Their Attitudes Towards Complementary Therapies During The COVID-19 Pandemic Period

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ABSTRACT

Aim: This study aims to determine the effect of anxiety levels of patients with respiratory diseases on their attitudes towards complementary therapies during the COVID-19 pandemic period.

Material and Method: This descriptive cross-sectional study was included with 352 patients with respiratory diseases . Data were collected using the "Patient Information Form" developed by the researchers, the Coronavirus Anxiety Scale (C19P-S), and the Attitude Towards Complementary Therapies Scale (ACTS). Statistical analyses were performed using descriptive statistics, the Mann-Whitney U test, the Kruskal-Wallis test, and the Spearman Correlation test.

Results: The total scores of the patients with respiratory diseases were 0.67±1.06 on the C19P-S Scale and 16.40±4.60 on the ACTS Scale. It was found that 43.5% of the patients had a respiratory system disorder for 6-10 years and 46.0% had bronchitis. It was determined that patients with respiratory disease frequently experienced shortness of breath and the alternative treatment method they utilized to prevent attacks was 86.9% herbal treatment method. In the study, a significant relationship was determined between the mean scores of the ACTS and the mean scores of the C19P-S ($p<0.05$).

Conclusion: The study found that patients experiencing higher levels of anxiety showed an increased use of complementary methods during the pandemic. It is observed that health policies are necessary to promote the development of accurate attitudes towards the utilization of complementary methods as well as interventions to reduce the anxiety of patients with respiratory diseases.

Key Words: *Patients with respiratory diseases, anxiety, complementary therapy, COVID-19.*

1. INTRODUCTION

Since being declared a pandemic by the WHO, *Coronavirus* Disease 2019 (COVID-19) has posed a significant threat to global health worldwide (1). The COVID-19 pandemic has been reported to lead to psychological problems in the community and increase the anxiety levels of individuals (2, 3). In particular, acute respiratory distress syndrome (ARDS) arising from asthma, COPD and acute viral pneumonia and COVID-19 have resulted in serious health problems and mortality by leading to anxiety in individuals (2, 4-8). A review of the literature reveals that individuals with chronic diseases experienced moderate levels of fear and anxiety during the COVID -19 pandemic, that the rate of anxiety and depression in patients with allergic rhinitis ranged from 19.4% to 24.8%, and that severe respiratory distress due to ARDS led to an increase in the number of patients requiring mechanical ventilation (6, 7, 9, 10). The lack of a specific treatment against COVID-19 has increased the utilization of complementary therapies methods by individuals with respiratory system diseases due to their anxiety of developing the

disease (11-13).

During the COVID-19 period, it is reported that the rate of utilization of complementary therapies for disease prevention and recovery among adults was 54.2-70.5% and that they mostly resorted to herbal treatment (14-16). In the literature, it is reported that asthma patients experienced psychiatric disorders during the COVID-19 pandemic (2) and that patients receiving medical treatment partially benefited/not benefited from the treatment, patients who benefited from the treatment benefited from the treatment as additional treatment or patients who did not undergo controls to health institutions due to fear of developing the disease resorted to complementary therapies methods (2, 6). The COVID-19 pandemic is significant in terms of determining anxiety levels in patients with chest diseases such as asthma and COPD, preventing respiratory failure, and recognizing the complementary therapies methods employed in providing symptom management. This study aims to determine the effect of anxiety levels of patients with respiratory diseases on their attitudes towards complementary therapies during the COVID-19 pandemic.

Research questions were followed:

1. What are the anxiety levels of patients with respiratory diseases on their attitudes towards complementary therapies during the pandemic?

2. Do sociodemographic and disease characteristics of patients with respiratory diseases during the pandemic affect their attitudes towards utilizing complementary therapies with anxiety levels?

3. Is there a relationship between the anxiety levels of patients with respiratory diseases and their attitudes towards utilizing complementary therapies during the pandemic process?

2. MATERIALS AND METHODS

2.1. Study Design

This study designed as a descriptive and cross-sectional.

2.2. Setting and Sample

The study population consisted of individuals registered with chest disease in a family health center in Mersin province. The sample size was calculated using the formula $n= Nt^2pq/d^2(N-1)+pq$. Among the 620 individuals with respiratory system diseases registered at the Family Health Center, in determining the minimum sample size as 237, p=0.5, q=0.5, 95% confidence interval and 5% margin of error were used. The study was finalized with a total of 352 individuals who met the following criteria: aged 18 or older, diagnosed with a respiratory system disease, no sensory impairments related to vision or hearing, Turkish-speaking, willing to engage in verbal communication, no psychiatric history, completed the questionnaire within the study period, and provided consent to participate.

2.3. Data collection instruments

The data were collected through the Patient Information Form, Coronavirus Anxiety Scale (C19P-S), and Attitudes Toward Using Complementary Therapies Scale (ACTS).

2.3.1. Patient Information Form: The researchers developed the questionnaire based on a review of the literature (2, 6, 8, 16-19). The questionnaire included 14 close-ended questions regarding the patients' socio-demographic characteristics, such as age, gender, educational status, marital status, financial status, residential area, COVID-19 positivity status, COVID-19 positivity in relatives, general health status, disease other than respiratory disease, frequent shortness of breath, duration of respiratory disease, the name of respiratory system disease, and smoking status.

2.3.2. Coronavirus Anxiety Scale (C19P-S): Scale is a 5-item scale developed by Lee et al. (2020) (20). The Turkish validity and reliability study of the scale was conducted by Biçer et al. (2020) (21). The scale has a minimum score of 0 and a maximum score of 20. A total scale score of ≥9 indicates that individuals have high anxiety levels. In this study, the minimum value of the scale was '0' and the maximum value was '5'.

The mean total score of the scale was 0.67±1.06 and the Cronbach's alpha coefficient was 0.78.

2.3.3. Attitudes Toward Complementary Therapies Scale (ACTS): The scale was developed by Bilge et al. (2018) (22), consists of 13 items and uses a 4-point Likert-type format. [(0) Strongly disagree, (4) Strongly agree]. The 9th item of the 13-item scale is reverse coded. The scale, scored between 0 and 3, has a minimum score of 0 and a maximum score of 39. A high scale score is expressed as a positive approach to complementary therapies. The Cronbach's alpha value of the scale is 0.79. In this study, the minimum value of the scale was '7' and the maximum value was '28'. The mean total score of the scale was 16.40±4.60 and the Cronbach's alpha coefficient was 0.70.

2.4. Data collection

The data were obtained from patients with respiratory diseases who attended a family health center in Mersin province, via face-to-face interview technique by the researchers in the waiting room before the examination by complying with the mask, distance, and hygiene rules. Before the implementation, the purpose and method of the study were explained to the participants, and it was clarified that the information collected would be used exclusively for scientific purposes. The administration of the questionnaire lasted approximately 10-15 minutes.

2.5. Data analysis

SPSS 21.0 (Statistical Package for the Social Sciences, Chicago, Illinois) was used for data analysis. Categorical variables were presented as frequencies and percentages. Continuous variables were expressed as mean and standard deviation (SD). Kolmogrow-Smirnow test was conducted for normality distribution. For variables that did not follow a normal distribution, the Mann-Whitney U test was used to compare two independent groups, while the Kruskal-Wallis test followed by the Bonferroni correction was applied for comparisons involving more than two independent groups. Reliability analysis was conducted to determine the Cronbach's Alpha value. The Spearman Correlation test was used for analyzing correlations. $p<0.05$ was accepted as the significance level of statistical tests.

2.6. Limitations

This study does not reflect the general population of individuals in Türkiye and is limited to patients with respiratory diseases who attend the Family Health Center where the study was conducted. Another limitation of our study is that all age groups aged 18 and over who met the inclusion criteria were included in the study. Although complementary therapies is used at almost all ages, it may create situations that will affect the study results among age groups.

3.RESULT

It was determined that 69.3% of the patients with respiratory diseases who participated in the study were male and over 22 years of age, 53.1% had a higher education degree, 53.7% were married, 62.5% had a medium financial status, and 59.9% lived in the province. 79.3% of the patients did not have a COVID-19 positive status, 69.0% did not have a COVID-19 contact status, 57.4% had a COVID-19 positive status in their relatives, 47.4% evaluated their general health status as satisfactory, 63. 6% did not have any other disease other than respiratory system disease, 23.9% had frequent respiratory distress, 43.5% had a duration of illness of 6-10 years, 46.0% had bronchitis, 46.0% were smokers (Table 1).

In the study, it was determined that the mean total scores of the C19P-S Scale were significantly higher in male patients (0.79±1.07), married patients (0.83±1.19), patients with COVID-19 positivity in themselves and their relatives (1.27±1.27), patients with respiratory system disease duration of 1-5 years (0.89±1.12) and patients with bronchitis (0.84±1.12) ($p<0.05$) (Table 1). In the study, it was found that the mean total scores of the Attitude Towards Complementary Therapies Scale (ACTS) were significantly higher in women (17.05±4.68), married

Table 1. Distribution of Coronavirus Anxiety (C19P-S) and Attitudes Towards Complementary Therapies (ATCS) Scores According to Sociodemographic Characteristics of Chest Patients (n=352)

Variables	Number	%	C19P-S	ACTS
Age*				
18-21 years	108	30.7	0.67±1.10	16.55±4.42
22 years and above	244	69.3	0.68±1.04	16.33±4.69
z/p			z=-0.420, p=0.674	z=-0.238, p=0.812
Gender*				
Female	158	30.7	0.53±1.02	17.05±4.68
Male	194	69.3	0.79±1.07	15.87±4.48
z/p			z=-3.187, **p=0.001**	z=-2.625, **p=0.009**
Educational status**				
Primary school and below	37	10.5	0.37±0.49	18.34±5.58
Secondary School	128	36.4	0.61±1.14	16.35±4.71
Higher Education	187	53.1	0.78±1.07	16.03±4.23
x^2/p			x^2=5.201, p=0.074	x^2=3.964, p=0.138
Marital status*				
Married	189	53.7	0.83±1.19	17.05±5.02
Single	163	46.3	0.49±0.84	15.64±3.95
			z=-2.628, **p=0.009**	z=-2.418, **p=0.016**
Financial Status**				
Satisfactory[a]	125	35.5	0.70±1.14	16.99±4.00
Moderate[b]	220	62.5	0.68±1.02	16.19±4.91
Poor[c]	7	2.0	-	12.42±0.53
x^2/p			x^2=4.525, p=0.104	x^2=50.457, **p<0.000 a>b>c**
Residential area**				
Province[a]	211	59.9	0.71±1.09	16.06±3.87
Township[b]	114	32.4	0.67±1.09	15.78±5.22
Village/town[c]	27	7.7	0.44±0.50	21.70±4.37
x^2/p			x^2=0.049, p=0.976	x^2=32.544, **p<0.000 c>a>b**
COVID -19 positivity status*				
Yes	73	20.7	1.27±1.27	16.36±3.61
No	279	79.3	0.52±0.93	16.41±4.83
z/p			z=-4.725, **p<0.000**	z=-0.339, p=0.734

Table 1. Distribution of Coronavirus Anxiety (C19P-S) and Attitudes Towards Complementary Therapies (ATCS) Scores According to Sociodemographic Characteristics of Chest Patients (n=352)- continue

Variables	Number	%	C19P-S	ACTS
COVID -19 positivity in relatives*				
Yes	202	57.4	0.77±1.09	16.27±4.40
No	150	42.6	0.54±1.00	16.57±4.88
z/p			z=-2.391, **p=0.017**	z=-0.702, p=0.483
Assessment of general health status**				
Satisfactory[a]	167	47.4	0.64±1.05	14.91±3.15
Moderate[b]	164	46.6	0.67±1.07	17.18±5.07
Poor[c]	21	6.0	1.04±0.97	22.14±4.73
x^2/p			x^2=4.525, p=0.104	x^2=50.457, **p<0.000 c>b>a**
The presence of a disease other than respiratory disease*				
Yes	128	36.4	0.60±0.94	16.99±5.21
No	224	63.6	0.72±1.12	16.06±4.19
z/p			z=-0.684, p=0.494	z=-2.312, **p=0.021**
Frequent shortness of breath*				
Yes	84	23.9	0.57±0.69	19.70±5.12
No	268	76.1	0.71±1.14	15.36±3.90
z/p			z=-0.548, p= 0.548	z=-6.941, **p=0.000**
Duration of respiratory disease**				
1-5 years[a]	76	21.6	0.89±1.12	16.64±4.03
6-10 years[b]	153	43.5	0.52±0.96	16.49±4.03
11 years and above[c]	123	34.9	0.73±1.10	16.13±5.53
			x^2=9.403, **p=0.009 a>c>b**	x^2=4.212, p=0.122
The name of respiratory system disease**				
Asthma[a]	146	41.5	0.65±1.08	15.36±4.14
Bronchitis[b]	162	46.0	0.84±1.12	16.76±4.47
COPD[c]	44	12.5	0.15±0.36	18.50±5.62
			x^2=17.042, **p=0.000 b>a>c**	x^2=10.921, **p=0.004 c>b>a**
Smoking status*				
Yes	162	46.0	0.82±1.18	17.99±5.00
No	190	54.0	0.55±0.92	15.04±3.74
z/p			z=-1.782, p=0.075	z=-5.749, **p=0.000**

p<0.05, C19P-S: Coronavirus Anxiety Scale; ACTS: Attitudes Towards Complementary Therapies Scale; a,b,c,: Post-Hoc Bonferroni test was used for multi-group comparisons; * Mann-Whitney U Test, **Krukal- Wallis Test.

patients (17.05±5.02), those with better financial status (16.99±4.00), those living in villages and towns (21.70±4.37), those who described their general health status as poor (22.14±4.73), those with chronic diseases other than respiratory system diseases (16.99±5.21), those with frequent respiratory distress (19.70±5.12), those with a diagnosis of COPD (18.50±5.62), and smokers (17.99±5.00) ($p<0.05$) (Table 1).

In Table 2, it was determined that all of the patients with respiratory diseases employed some complementary treatment method during the COVID -19 pandemic. It was determined that the mean total score of the C19P-S Scale and the mean total score of the ACTS Scale were 0.67±1.06 and 16.04±4.06, respectively. During the COVID-19 pandemic, all of the patients with respiratory diseases stated that they did not develop side effects due to the complementary method(s) they utilized. The mean C19P-S Scale score of these patients was 0.67±1.06 and the mean ACTS Scale score was 16.40±4.60 (Table 2). Sputum was among the most important symptoms that led the chest patients to utilize complementary therapies and the mean total score of the C19P-S Scale was 0.91±1.36. Cough was among the most important symptoms that resulted in the utilization of complementary therapies and the mean total score of the ACTS Scale was 19.96±4.56 (Table 2).

It was determined that the mean total scores of the C19P-S Scale and ACTS Scale were significantly higher ($p<0.05$) in patients with an increase in the complementary method utilization during the COVID-19 pandemic process. It was determined that the mean total score of the ACTS Scale of patients who recommended the complementary method/ methods they utilized during the COVID-19 pandemic to others was significantly higher (Table 2).

Table 2. Distribution of Coronavirus Anxiety (C19P-S) and Attitudes Towards Complementary Therapies Scores (ACTS) of Chest Patients According to CAM Utilization Characteristics (n=352)

Variables	Number	%	C19P-S	ACTS
Utilization of any complementary treatment method during the COVID-19 pandemic				
Yes	352	100.0	0.67±1.06	16.04±4.06
Status of considering the complementary methods utilized to be beneficial*				
Yes	326	92.6	0.68±1.09	16.42±4.75
No	26	7.4	0.57±0.50	16.15±1.95
z/p			z=-0.996, p=0.319	z=-0.299, p=765
Increase in the utilization of complementary methods during the COVID -19 pandemic*				
Yes	145	41.2	0.84±1.09	17.20±4.67
No	207	58.8	0.56±1.02	15.84±4.48
z/p			z=-2.859, **p=0.005**	z=-2.859, **p=0.04**
Recommending the complementary method(s) utilized during the COVID -19 pandemic to others*				
Yes	204	58.0	0.74±1.09	17.09±4.74
No	148	42.0	0.58±1.00	15.44±4.24
z/p			z=-1.328, p=0.184	z=-2.743, **p=0.006**
Development of side effects due to the complementary method(s) utilized during the COVID-19 pandemic				
No	352	100.0	0.67±1.06	16.40±4.60

p<0.05, C19P-S: Coronavirus Anxiety Scale; ACTS: Attitudes Towards Complementary Therapies Scale; CAM: Complementary and Alternative Medicine; a,b,c,: Post-Hoc Bonferroni test was used for multi-group comparisons; * Mann-Whitney U Test, **Krukal- Wallis Test

Table 3. Distribution of Coronavirus Anxiety (C19P-S) and Attitudes Towards Complementary Therapies Scores (ACTS) of Chest Patients According to CAM Utilization Characteristics (n=352)

	n	%
The most significant symptom that leads them to adopt complementary therapies		
Cough	77	21.9
Phlegm	49	13.9
Shortness of breath	220	62.5
Chest pain	101	28.7
Insomnia	68	19.3
Fatigue	52	14.8
Other	102	29.0
Cause of TAT adoption		
Strengthening immunity	110	31.3
Supporting medical treatment	210	59.7
Prevention of attacks	241	68.5
Relieving pain	110	31.3
Affordability	195	55.4
Traditional and complementary methods employed by chest patients during the COVID-19 pandemic		
Massage	70	19.9
Herbal therapy	306	86.9
Cupping	49	13.9
Vitamin intake	140	39.8
Prayer/meditation	177	50.3
Leech	9	2.6
Reflexology	5	1.4
Acupuncture	14	4.0
Ozone therapy	40	11.4
Special diets	36	10.2
Reiki	2	0.6
Therapeutic touch	6	1.7
Yoga	14	4.0
Painting/music/dance therapy	86	24.4
Hot spring	18	5.1
Acupressure	1	0.3

It was determined that the most significant symptom that led 62.5% of the patients with respiratory diseases to employ complementary therapies was shortness of breath, 68.5% of them preferred to use complementary therapies to prevent attacks, and the most commonly utilized method was herbal treatment with 86.9% (Table 3).

When the sociodemographic characteristics of the patients with respiratory diseases and the mean coronavirus anxiety scores are evaluated in Table 4, a weak positive relationship was detected with gender (p=0.001) and a weak negative relationship was detected with marital status (p=0.008). A weak negative correlation (p=0.000) was observed with the

Table 4. Correlation Between Coronavirus Anxiety Levels and Attitudes Towards Complementary Therapies in Chest Patients

Characteristics of Patients	**Coronavirus Anxiety Scale Total Score**	
	r	**p**
Gender	0.170	**0.001**
Marital Status	-0.140	**0.008**
Increase in TAT Utilization	-0.151	**0.004**
COVID-19 positivity in relatives	-0.128	**0.017**
COVID-19 positivity status	-0.252	**0.000**
Attitudes Towards Complementary Therapies Scale Total Score	0.163	**0.002**

increase in complementary therapies use (p=0.004), COVID-positive status of relatives (p=0.017) and COVID-positive status (p=0.000). A weak positive correlation was detected between the mean scores of the Attitude Toward Complementary Therapies and the mean scores of the Coronavirus Anxiety Scale (p=0.002) (Table 4).

4. DISSUCION

During the COVID-19 pandemic, the lack of a definitive treatment increased individuals' interest in complementary therapies to cope with anxiety (23). Pandemic-related anxiety has been shown to worsen symptoms and reduce quality of life (24). Therefore, this study evaluated the effect of anxiety levels of patients with respiratory diseases on their attitudes toward complementary therapies.

In this study, it was observed that women and married people had more positive attitudes towards complementary therapies use. It has been reported in the literature that especially women tend to use medicinal plants/herbal medicines and complementary therapies methods more than men (25-29). This is likely due to women showing greater interest in health-related information. Married women's active role in health management may contribute to protecting both themselves and their families during the COVID-19 pandemic.

In this study, it was determined that those with high income levels and living in villages had positive attitudes towards the use of complementary therapies. Previous studies similarly report higher utilization among rural residents and higher-income individuals, often linked to family traditions and access to home-grown herbs (27,30-32).These study findings are consistent with the literature.

In this study, it was determined that patients who evaluated their general health status as poor, had more than one disease, and had respiratory distress had positive attitudes towards complementary therapies use. Healthcare use can be explained by several key variables, including physical and psychological symptoms, disease burden, and general health status (33). Increased disease burden and uncontrolled respiratory symptoms are associated with dissatisfaction with conventional treatments, which may lead patients with asthma, bronchitis, or COPD to seek complementary therapies (34).

In this study, it was determined that COPD patients had a more positive attitude towards complementary therapies use. The rate of complementary therapies use in COPD patients was reported as 92.8% by Kaplan Serin et al (35) and 73.4% by Kılıç et al (36). COPD is a disease with progressive symptoms that affect individuals' daily life activities. The literature indicates that COPD patients use complementary therapies to ease breathing, manage symptoms, and improve overall health (35, 36).

In this study, it was determined that smokers had positive attitudes towards complementary therapies use. Sylvain et al. found that complementary therapies use in people with tobacco dependence was mostly used to relieve other symptoms. They stated that patients used smoking as a method to reduce comorbidities (37). The literature indicates that smokers use complementary therapies for smoking cessation, with acupuncture reducing daily cigarette consumption and herbal products commonly used as

expectorants or mucolytics (38, 39).

In this study, it was found that married men had higher COVID-19 anxiety levels (Table 1). Lee and Crunk's study also found that men had high stress and high rates of depression due to fear of COVID-19 (40). In most studies, unlike our study, it has been determined that women are more afraid of COVID-19 (41-43). The higher anxiety observed in married men may be associated with increased economic stress and job insecurity during the pandemic, as well as reduced emotional expression.

In this study, it is observed that having COVID-19 positive status in oneself and relatives affect COVID-19 anxiety. Consistent with the literature, higher fear and anxiety levels have been reported among individuals diagnosed with COVID-19, those who know infected persons, or those with affected family members, reflecting the perceived fatal risk of the disease (44-46). Since COVID-19 is a deadly disease, it is inevitable that fear will increase in individuals and family members who test positive for the disease.

In this study, it was found that those with a disease duration of 1-5 years, and patients with bronchitis had higher COVID-19 anxiety levels. Sahu reported that chronic bronchitis is at higher risk for COVID-19 (47). In the literature, there are studies indicating that asthma patients (5, 48, 49) and patients with COPD experienced anxiety (50) before (51) and during (2, 19, 24) the COVID-19 pandemic. Because COVID-19 causes symptoms that mostly affect the respiratory system, patients with chronic diseases such as bronchitis, asthma, and COPD are likely to experience more anxiety, stress and worry.

In our study, it is inevitable that individuals who have been ill for 1-5 years have high levels of fear of COVID -19 for these reasons. Supporting disease adaptation through regular follow-up and patient education is essential to reduce anxiety in individuals with asthma, bronchitis, and COPD.

In this study, patients with high COVID-19 anxiety levels were determined to have increased rates of complementary therapies utilization (Table 2). When the literature is examined, it is stated that the rate of complementary therapies method use by individuals during the COVID-19 pandemic process is 62.3-82.5% (16, 17, 28, 32) and that they recommend these CAM methods to others (27). In a study, it was detected that the rate of complementary therapies utilization of individuals decreased as COVID-19 anxiety decreased, with similar results to our findings (32).

In this study, 68.5% of the reasons for using complementary therapies were determined as protection from attacks, 59.7% as supporting medical treatment, and 55.4% as more affordable (Table 4). In the studies conducted, similar results to our findings were obtained; 61.6% used complementary therapies to increase their well-being, (32) to alleviate the symptoms of acute and chronic diseases, (17) and 10.0% to prevent COVID-19, patients regarded complementary therapies practices as beneficial, that it provides physical and mental relaxation, has few side effects, has no detrimental effects, (16, 23, 28) relaxed them in all aspects, reduced their stress and anxiety, (18, 52) and decelerated the progression of their diseases (32, 53). These findings suggest that patients used complementary therapies to prevent COVID-19, manage their conditions, and support recovery. Pandemic-related misinformation and limited access to healthcare may have influenced this use. Reducing patient anxiety and providing education on the appropriate use of complementary therapies are essential to prevent unconscious utilization during the COVID-19 period.

In this study, among the complementary therapies methods frequently practiced by chest patients during the COVID-19 pandemic; 86.9% of them used herbal treatment, 50.3% practiced prayer/meditation, and 39.8% took vitamins (Table 4). In similar studies, individuals frequently used self-management strategies 59.4%, herbal products/vitamin/mineral support 55.0%-87.5%, (17, 27, 28, 32, 54) religious practices as spiritual therapy (23) and prayer, (32) yoga (52, 55) and acupuncture, (51, 56) and programs such as aerobic exercise, muscle resistance exercises, diaphragmatic breathing, and puckered lip

breathing are implemented in individuals with respiratory system diseases (57). These results have led us to believe that patients in Turkish society often prefer practices such as herbal treatment, prayer/ meditation among complementary therapies methods to improve their quality of life.

In this study, a positive correlation was detected between the mean coronavirus anxiety scores and the mean attitude towards complementary therapies (Table 4), (Table 5). In one of the studies, it has been reported that there are similar results with our study findings, and as the anxiety symptoms of individuals with chronic diseases increase, the rate of complementary therapies use increases (58, 59).Previous studies on chronic diseases and respiratory patients report positive attitudes toward complementary therapies for alleviating physical and psychological symptoms (25,55,60,61). Similarly, this study found that individuals with chronic conditions use complementary therapies to reduce symptoms, ease anxiety, and improve quality of life.

5. CONCLUSION

In this study, it was concluded that all of the chest patients utilized some form of complementary therapies during the COVID-19 pandemic, that herbal treatments were frequently among the complementary therapies methods they practiced, that they frequently employed complementary therapies to protect themselves from shortness of breath and other attacks, that almost all of them considered complementary therapies methods to be beneficial, and that the rate of complementary therapies utilization increased as the anxiety level of the patients increased. To manage COVID-19 anxiety in patients with respiratory diseases, integrated care models involving nurses, physicians, pharmacists, and complementary therapy specialists should be developed. Structured educational programs conducted by nurses can prevent patients from using complementary therapies without proper knowledge. Risks, level of scientific evidence and correct use should be emphasized in training.Mobile applications and electronic nursing record systems can be developed for monitoring complementary therapies. Digitally recording the methods used by patients helps prevent drug-herbal interactions. Developing health policies related to complementary therapies is considered important. Longitudinal and intervention studies are recommended for future research.

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Conflicts of Interest: The authors declared that there is no conflict of interest.

Ethical Statement

Prior to data collection, ethical approval was obtained from the Ethics Committee of Non-Interventional Clinical Studies at Burdur Mehmet Akif Ersoy University. (Decision Number: GO 2021/33). Written permission was obtained from the institution where the research was conducted, and both written and verbal consent was acquired from the patients. Additionally, written consent was obtained from the scale owner.

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