



Anxiety Level, Disease Adaptation and Integrative Treatment Applications in Hypertension Patients

ABSTRACT

Objectives: This research was conducted to examine the epidemic anxiety level, adaptation to the illness, and preference for integrative treatment of hypertension patients during the Covid-19 pandemic.

Methods: The research is descriptive and cross-sectional. In the research, Personal Information Form, Epidemic Anxiety Scale, Adaptation to Chronic Illness Scale (ACIS), Turkish Modified Morisky Scale (MMS) were used.

Results: In analyses conducted with 300 hypertension patients, it was determined that 71.7% had knowledge about integrative practices, and 39.7% used thyme tea, cupping, lemon juice, garlic, ginger, olive leaf tea, and pomegranate syrup for hypertension. It was found that patients using integrative methods had higher epidemic illness anxiety levels than patients who did not use integrative methods. The patients' knowledge and motivation levels regarding medication use habits were found to be high, and their illness compliance levels were found to be above the average value.

Conclusion: During the pandemic period, patients' anxiety levels were found to be high due to reasons such as social isolation and reduced face-to-face medical contact, and this may have increased patients' tendency towards integrative treatment methods.

Keywords: Anxiety, COVID-19, hypertension, integrative treatment

Hypertension is a global public health problem and one of the most common chronic illnesses (1). Approximately 1.13 billion hypertension patients are known to exist worldwide (2). According to the results of the Turkish Hypertension Prevalence Study Patent2 study, the prevalence of hypertension in the total population was 30.3% in Türkiye (3).

Hypertension patients turn their attention to complementary and integrative practices because they reduce the dose of the medications they use, do not use the medication, and think that they will not benefit from the treatment (4). Integrative practices cover a wide range of healthcare practices that are not part of the country's own tradition or conventional medicine and are not fully integrated with the existing healthcare system (5). Reasons for hypertension patients using integrative applications in the literature, it has been reported that the majority of patients use integrative applications to ensure blood pressure regulation (6-8). Since the COVID-19 pandemic worldwide has caused many additional medical or social behavioral changes, the obligation to comply with these rules requires sustainable psychological adaptation (9). While developing this adaptation skill in hypertension patients, determining their adaptation toward integrative practices for their illness, treatment, and pandemic anxiety is important, as it is reflected in the patient's knowledge of these practices and treatment strategies.

It is important that nurses evaluate patients from a holistic perspective by questioning the integrative practices they use and the situations they experience after using them; additionally, nurses should have information about the percentage of hypertension patients using integrative practices, which types of methods they use most, and what they experience in the integrative practice used to guide patients correctly without judging them.

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Received: May 15, 2024

Revised: June 28, 2024

Accepted: July 15, 2024

Cite this article as: Keşer E, Atik D, Özcan Yüce U. Anxiety level, disease adaptation and integrative treatment applications in hypertension patients. Acad J Health 2024;2(1):1-5.

DOI: 10.14744/ajh.2024.29491



Table 1. Personal characteristics of patients with hypertension (n=300)

Variables	n	%
Mean±SD		
Age (years)	54.44±7.60	
Gender		
Woman	170	56.7
Male	130	43.3
Marital status		
Single	29	9.7
Married	271	90.3
Educational background		
Illiterate	8	2.7
Primary education	183	61.0
High school	74	24.7
University	35	11.7
Job		
Housewife	145	48.3
Officer	46	15.3
Employee	40	13.3
Retired	69	23.1
Living place		
City	209	69.7
Town	66	22.0
Village	25	8.3

SD: Standard Deviation.

METHODS

This research was conducted to examine the epidemic anxiety level, adaptation to the illness, and preference for integrative treatment of hypertension patients during the COVID-19 pandemic. The research is descriptive, cross-sectional, and relationship-seeking. The population consisted of patients with hypertension who were admitted to a public hospital between January 2022 and January 2023, and the sample consisted of 300 patients who were diagnosed with hypertension at least six months ago in terms of illness recognition and adaptation, who agreed to participate in the study, and who did not have communication problems. In the power analysis performed with the data obtained to determine whether the sample was sufficient, the result was determined to be 98%.

Personal Information Form, Epidemic Anxiety Scale, Adaptation to Chronic Illness Scale (ACIS), and Turkish Modified Morisky Scale (MMS) were collected (2,10-15) by the researcher via face-to-face interviews, with written and verbal consent from individuals with hypertension. Inclusion criteria: no communication problems, those diagnosed with hypertension at least six months ago and receiving medical treatment in terms of illness recognition and adaptation, and the patient had no diagnosed mental illness.

Table 2. Disease-related characteristics of the participants (n=300)

Variables	n	%
Mean±SD		
Hypertension diagnosis time (years)	9.00±6.50	
Do you have any accompanying chronic disease?		
Yes	180	60
No	120	40
Do you use your medications regularly?		
Yes	277	92.3
No	23	7.7
Do you go for your check-ups regularly?		
Yes	234	78
No	66	22
Smoking		
Yes	114	38.0
No	186	62.0
Alcohol use		
Yes	28	9.3
No	272	90.7
Exercise app		
Yes	100	33.3
No	200	66.7

SD: Standard Deviation.

Ethical Aspects of the Study

This study was approved by the Ethics Board Committees of Osmaniye Korkut Ata University and the Adana Health Directorate. Consent for publication and consent to participate in the study were obtained from the participants. The principles of the Declaration of Helsinki were complied with.

Study Limitations

The research was limited to a single centre.

Statistical Analysis

SPSS 23 statistical package program was used to evaluate the data. The data were analyzed at a significance level of 0.05. Continuous data are presented as the mean±standard deviation and median. The frequency and percentage were calculated for categorical variables. One-way ANOVA, Student's t-test, and Pearson correlation were used to compare the groups.

RESULTS

Personal characteristics of the patients are presented in Table 1. In the analyses made with the data of the research, the average age of the patients is 54.44±7.60 years, 56.7% are women, 90.3% are married, 61% are primary school graduates, and 48.3% are housewives. It was determined that 69.7% lived in the city center (Table 1).

The disease-related characteristics of the participants are presented in Table 2. The duration of hypertension diagnosis for the patients included in the study was 9.00±6.50 years, 60% had an accompanying chronic disease, 92.3% used hypertension medications regularly, and 78% went to physician check-ups regularly. In total, 90.7% did not smoke, 90.7% did not drink alcohol, and 66.7% did not exercise regularly (Table 2).

Table 3. Characteristics of patients with hypertension regarding integrative practices (n=300)

Variables	n	%
Do you know about integrative applications?		
Yes	215	71.7
No	85	28.3
If yes		
TV-media	40	13.3
Family	62	20.7
Friend	113	37.7
Have you used integrative practices due to your illness?		
Yes	119	39.7
No	181	60.3
If yes		
cupping	27	9.0
pomegranate syrup	23	7.7
Lemon juice	30	10.0
Garlic	29	9.7
olive leaf juice	5	1.7
thyme tea	3	1.0
Ginger	2	0.7
Do you think the integrative practice you implemented was effective?		
Yes	112	37.3
No	188	62.7
Do you think the integrative practice you applied is more effective than the medical practice?		
Yes	0	0
No	300	100
Have you used any integrative practices instead of medical treatment during the pandemic?		
Yes	14	4.7
No	286	95.3

Table 4. Scale total scores of patients with hypertension (n=300)

Scale	mean±SD	Min. - Max.
Epidemic Anxiety Scale		
Epidemic size	22.17±6.55	7-35
Economic dimension	7.01±2.36	2-10
Quarantine size	13.73±3.43	4-20
Social life dimension	19.10±4.83	5-25
Adaptation to Chronic Illness Scale		
Physical adaptation dimension	40.57±4.63	20-52
Social cohesion dimension	21.96±4.35	8-33
Psychological adaptation dimension	22.30±2.97	13-32

SD: Standard Deviation; Min: Minimum; Max: Maximum.

The characteristics of patients with hypertension regarding integrative practices are presented in Table 3. When the integrative application features of patients with hypertension were examined, 71.7% of patients were found to have knowledge about integrative practices, and 37.7% of these patients learned this information from their friends. It was determined that 60.3% of the patients resorted to integrative practices due to their disease, 10% of these patients used lemon juice, and 9.7% used garlic to reduce their high blood pressure. It was determined that, in 37.3% of the patients, the integrative application was effective. All patients who used integrative methods reported that the integrative application was not more effective than medical treatment. It was determined that 4.7% of the patients resorted to integrative practice instead of medical treatment during the pandemic (Table 3).

The average scores of the scales used are presented in Table 4. The mean Epidemic Anxiety Scale of the patients within the scope of the study was 22.17±6.55, and the mean Adaptation to Chronic Illness Scale was 22.30±2.97 (Table 4).

The scale total score averages of patients with hypertension according to their use of integrative treatment are presented in Table 5. The correlation between the scale total score averages is presented in Table 6. When we examined the average total scores of patients with hypertension according to their use of integrative treatment, the mean Epidemic Anxiety Scale was 67.10±12.70, and the mean Adaptation to Chronic Illness Scale was 86.44±8.73 for those who used integrative treatment, while the mean Epidemic Anxiety Scale was 58.67±15.87, and the mean Adaptation to Chronic Illness Scale was 83.75±9.24 for those who did not use integrative treatment (Table 5).

Table 5. Scale total score averages of patients with hypertension according to their use of integrative treatment (n=300)

Scales	Integrative therapy use status	n	mean ± SD	p
Epidemic Anxiety Scale total	Yes	119	67.10±12.70	0.000
	No	181	58.67±15.87	
Adaptation to Chronic Illness Scale total	Yes	119	86.44±8.73	0.012
	No	181	83.75±9.24	
MMS motivation	Yes	119	1.89±0.39	0.001
	No	181	1.70±0.56	
MMS information	Yes	119	2.16±0.68	0.104
	No	181	2.01±0.83	

SD: Standard Deviation; MMS: Modified Morisky Scale.

Table 6. The correlation between the scale total score averages

Scales	Epidemic Anxiety Scale total	Adaptation to Chronic Illness Scale total	MMS motivation	MMS information
Epidemic Anxiety Scale total		0.076 0.191	0.382** 0.000	0.056 0.336
Adaptation to Chronic Illness Scale total			0.108 0.062	0.289** 0.000
MMS motivation				0.246** 0.000

MMS: Modified Morisky Scale.
**Correlation is significant at the 0.01 level (2-tailed).

It was determined that there was a statistically significant positive correlation between the Epidemic Anxiety Scale and the MMS motivation dimension, between the Adaptation to Chronic Illness Scale and the MMS knowledge dimension, and between the MMS motivation and MMS knowledge dimensions (Table 6).

DISCUSSION

In studies conducted in this context, when the descriptive characteristics of hypertension patients were examined, it was seen that the results were generally similar to the results of this study (4,16). The COVID-19 pandemic has caused disruption of routine medical care as well as daily life (17). In this study, it has been observed that the patients' adaptation to this chronic illness is at a good level. A study stated that only 19.42% of hypertension patients adapted well to the illness throughout the pandemic (18). As a result of a study investigating the determinants of blood pressure control status during the COVID-19 epidemic in patients with hypertension receiving antihypertensive treatment, it was determined that poor medication compliance and low social support were among the determinants of uncontrolled blood pressure (19). Considering our study findings and literature information, it is thought that it is a necessity that should not be ignored that this issue may negatively affect the illness adaptation of individuals diagnosed with hypertension globally.

In this study, all patients who preferred integrative treatment stated that although they applied complementary and alternative treatments along with medical treatment, they did not find complementary and alternative treatments more effective than medical treatment. Again in this study, hypertension patients using integrative treatment had higher anxiety and illness compliance than those who did not use integrative treatment. Medium-level anxiety was determined in those who did not use integrative treatment. Celik et al. (20) according to the results of the study conducted by 2021, psychological stress experienced in relation to the COVID-19 epidemic led to worsening blood pressure regulation in hypertensive patients. The problems arising from this stress and anxiety have manifested themselves with the increasing tendency of patients to integrative treatments during the pandemic period. It has been reported that ginger, turmeric, lemon, onion, garlic, and apple or grape vinegar are frequently used as medicinal plants (12). In a study, it was stated that patients experienced less anxiety and did not feel the need to research integrative treatment methods because they could reach their physicians by phone and easily obtain their medications during the pandemic. Again, in this study, 67.7% of the patients had no knowledge of integrative practices

and 10.4% reported that they used various plants for hypertension, suggesting that the anxiety experienced was at a moderate level (13). In a study examining hypertension patients' use of herbal products (phytotherapy), one of the integrative treatment methods, it was found that 57.5% of the patients used herbal products and the reason for most of them was that they believed that supportive treatment was beneficial (4). In another study, 51.3% of patients stated that they used herbal treatments to regulate blood pressure and that they used the following especially when they felt bad: lemon juice, lemon and garlic mixture, lemon and parsley, lavender flowers, sour and pomegranate mixture, buttermilk, soda, olive oil tree leaves mixture, garlic yoghurt, unsalted buttermilk, flaxseed, thyme, apple cider, green tea, cinnamon, bay leaf (6). In a study conducted on patients hospitalized in the cardiology ward (56.3% diagnosed with hypertension), it was reported that 35.7% of patients with hypertension used herbal products, and those who used herbal products mostly used green tea, lemon balm, ginger, hawthorn, and marshmallow flower (21). Yüce et al. (22) found the average illness adaptation score in individuals with chronic illnesses to be 82.83 ± 10.71 in women and 84.86 ± 11.14 in men. Sezer et al. (23) found the mean illness adaptation score in hypertensive elderly patients to be 87.04 ± 9.77 . Baykal et al. (24) found the average compliance score of hypertensive patients to be 73.47 ± 7.52 .

According to the studies and the results of these studies, the reason why patients with hypertension turn to integrative treatment is that they generally consider other methods as supportive treatment in addition to medical treatment methods. Additionally, the pandemic and anxiety may make patients consider different treatment preferences.

CONCLUSION

The anxiety level of the patients was high, their level of knowledge and motivation regarding medication use habits was high, and their level of adaptation to the illness was above the average value. During the pandemic period, patients' anxiety levels were found to be high due to reasons such as social isolation and reduced face-to-face medical contact, and this may have increased patients' tendency towards integrative treatment methods. The higher illness compliance of patients using integrative methods may be due to anxiety.

Ethics Committee Approval: This study was conducted with the permission of the Osmaniye Korkut Ata University Local Ethics Committee (decision no: E-59754796-050.99-4080, date: 09.11.2021) and Adana Health Directorate Local Ethics Committee (decision no: -96172664-050.06.04)

Informed Consent: Written informed consent was obtained from the patients who agreed to take part in the study.

Peer-review: Externally peer-reviewed.

Author Contributions: Concept – E.K.; Design – E.K., D.A.; Supervision – D.A.; Resource – E.K., U.Ö.Y.; Materials – E.K.; Data Collection and/or Processing – E.K.; Analysis and/or Interpretation – E.K., U.Ö.Y.; Literature Review – E.K., D.A., U.Ö.Y.; Writing – E.K., U.Ö.Y.; Critical Review – D.A.

Declaration of Interests: The authors have no conflict of interest to declare.

Funding: The authors declared that this study has received no financial support.

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