

Original Article

Cancer Patients' Use of Complementary and Alternative Treatments

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Abstract

Purpose: This study was conducted as a descriptive study to determine the use of CAT by cancer patients.

Method: This study was conducted between January and June 2017 with 250 cancer patients in the oncology and hematology clinic of a university hospital in Turkey. The data were collected using a questionnaire about the patients' demographic characteristics and their use of CAT. The data collected were analyzed using means, percentages and the chi-square test.

Results: It was determined that 23.6% of the patients were in the 31-41 age group, 57.2% were female, and 84.4% were married. Of them, 38.2% had completed primary school, 40% were housewives and 66.8% did not smoke. It was also found that 33.6% of the treatment duration was between 6-8 years, 53.6% were in the latter 3 stages of the disease, and 72.4% were accompanied by another chronic illness. Of the participants, 74.8% of the patients had at least one patient with cancer in their family, and 74.8% had received chemotherapy and radiotherapy treatment.

It was found that 71.2% of the patients use CAT. Marital status and gender were found not to be statistically significant in the use of CAT ($p>0.05$). Age, occupation, educational status, smoking, duration of treatment, stage of the disease, type of cancer, another accompanying chronic illness, the presence of cancer in the family and the type of treatment were found to be statistically significant in the use of CAT ($p<0.05$).

Conclusions: Nurses should determine the use of CAT in cancer patients because cancer patients frequently use it. Nurses should be educated and counseled about the safe use of CAT for individuals with chronic illnesses, and nursing history forms should contain questions about the use of CAT.

Key Words: Cancer, complementary and alternative treatments, nursing, patients.

Introduction

Cancer remains one of the leading causes of death worldwide (Ferlay et al., 2015). Many cancer patients seek out Complementary and Alternative therapies (CAT) in an attempt to moderate side effects of chemotherapy or radiation. Some cancer patients believe that CAT provide other benefits such as promoting health, managing disease symptoms, preventing illness, or improving immune function. Certain religious and cultural factors affect

CAT choices, and CAT are widely perceived to be "natural," leading some patients to feel that CAT use aligns with their beliefs (Kessel et al., 2016). Complementary and Alternative therapies (CAT) is a broad set of non-mainstream practices including use of natural products, mind-body therapies and entire medical systems (Kessel et al., 2016; Wieland, Manheimer & Berman, 2011). CAT are used to support scientific medicine, to improve quality of life, to reduce symptoms and the side effects of

drugs, and to provide physical and psychological support. Alternative therapies are treatments whose effects are not scientifically proven, but are applied instead of scientific medicine (Kav, Hanoglu & Algier, 2008). According to the definition by the National Institutes of Health (NIH), complementary and alternative therapy (CAT) is a broad field of medicine that includes all medical services, methods, practices, and accompanying theories and beliefs (Wieland, Manheimer & Berman, 2011). CAT is used in many areas such as chronic illnesses, joint diseases and mental problems (Set, 2011). One of the most common areas of use of CAT is life-threatening cancers, which diminish quality of life and cause side effects such as nausea, vomiting, insomnia, fatigue and depression during the management of the disease (Bebis et al., 2014). The majority of cancer patients use CAT methods such as acupuncture, massage and natural health products (Mao, Palmer, Healy, Desai & Amsterdam, 2011). There are many reasons to use CAT. These include high evidence-based research results, an increase in the availability of natural health products, the provision of qualified practitioners, natural therapies and individual attitudes (Singh, Maskarinec & Shumay, 2005). The incidence of cancer in the world and in Turkey is increasing, but the survival of patients is being prolonged due to early diagnosis and treatment possibilities (chemotherapy, radiotherapy and surgical methods). Using CAT, patients want to extend this period further, to reduce side effects caused by treatments and have better quality of life. The frequency of cancer patients' CAT use varies between 6 and 84% (Verhoef et al., 2005). Many patients use CAT methods that they believe are appropriate for their illness based on the perceptions and experiences of other patients who have used them before, or from sources such as radio, television and the internet. In general, the side effects of CAT methods, their interactions with medical treatment, and their adverse effects are not mentioned by these sources (Yavuz et al., 2007). Ambiguities about the use of CAT concern patients who consider these therapies part of their cancer treatment (Juraskova et al., 2010). As life expectancy increases, it is important for health professionals like nurses to be knowledgeable about the prevention, assessment and treatment of cancer symptoms and treatment side effects. Given the increased trend of using complementary and alternative medicine by the general population, it is also important to understand the appropriate use of complementary and alternative medicine for symptom management in care of cancer (Bebis et al., 2014; Ferlay et al., 2015).

The aim of this study was to increase patients' awareness about CAT use by planning for health care workers, especially nurses working in the field, to evaluate, monitor and counsel patients, and to manage diseases and patient education activities by examining cancer patients' use of CAT.

Methods

This descriptive study was conducted to determine the use of CAT by cancer patients and the factors that affect it. The study's universe consisted of patients in the oncology and hematology clinic of the Ondokuz Mayıs Healthcare Application and Research Center between January and June 2017. The sample consisted of 250 patients who agreed to participate in the study.

Data Collection: The study data were collected using a questionnaire consisting of 26 items, prepared by reviewing the relevant literature (Kav et al., 2008; Wieland et al., 2011; Set, 2011; Bebis et al., 2014) which was intended to determine cancer patients' use of CAT.

Implementation of the Data Collection

Instrument: The data collection form was administered between January and June 2017 to patients who agreed to participate in the research and were hospitalized in the oncology and hematology clinic of the Ondokuz Mayıs Health Practice and Research Center. The data collection form was filled out by the researcher in face-to-face interviews with the cancer patients, and the interviews lasted 15-20 minutes at most.

Ethical Aspect of the Study: The study was conducted in accordance with the Declaration of Helsinki. Prior to the study, the approval of the ethics committee and permission from the hospital were obtained. In addition, written and verbal approvals were obtained from the participants after the purpose of the research was explained to them. The patients who agreed to participate in the study were informed that the personal information they gave are confidential in line with the confidentiality principle, they would never be disclosed to no one, and would not be shared.

Evaluation of the Data: The data were evaluated with SPSS software using numbers, percentages and the chi-square test.

Results

Of the participants, 30.4% had gastrointestinal cancer, 23.6% were in the 31-41 age group, and 57.2% were female. Of them, 88.4% were married, 40% were housewives, and 39.2% had completed primary school. Of them, 100% had balanced

incomes, and 44.4% were in moderate overall health. It was also found that 53.6% were in stage 2 of the disease, 33.6% had had this disease for 6-8 years, and 72.4% had another accompanying disease. Of the participants, 74.8% had a patient with cancer in the family, 74.8% had had chemotherapy and radiotherapy, 66.8% did not smoke, and 89.2% did not consume alcohol.

Of the patients, 71.2% (178 individuals) were found to use CAT. Of the patients who applied psychological/behavioral CAT, 44.4 % were found to use religious methods. Of the patients who used vitamin/pharmacological CAT, 28.1% were found to use calcium, and 36% of those using the herbal/nutritional CAT were found to use stinging nettles. Of the CAT users 27.6% corrected energy deficiencies, and 33.1% used CAT because it suits

their lifestyles. In 79.8% of the cases, the physicians or nurses were aware of the use of CAT, and 72.5% of the physicians or nurses were positive about the use of CAT. Of the patients, 61.8% were highly satisfied with CAT, and 46.2% were found to have obtained information about CAT from family and relatives (Table 1).

The relationship between marital status and gender and the use of CAT was found to be statistically insignificant ($p > 0.05$). The relationships between age, occupation, smoking and alcohol use, type of cancer, presence of other chronic diseases, duration and stage of illness, perception of cancer, presence of cancer in the family, treatment and educational status and the use of CAT were found to be statistically significant ($p < 0.05$) (Table 2).

Table 1. Characteristics of individuals related to their CAT practices (n=250)

Characteristics related to their CAT practices	Number	%
CAT method (n:250)		
Uses	178	71.2
Does not use	72	28.8
The source of information on the CAT method (n:178)		
My family and relatives	82	46.2
TV, newspapers, books, Internet	48	26.9
Friend	48	26.9
Psychological/Behavioral CAT method used (n:178)		
Religious Methods	60	44.4
Psychotherapy	22	16.3
Spa	30	22.2
Massage	23	17.1
Vitamins/Pharmacological CAT method used		
Calcium	25	28.1
Multivitamin	20	22.5
Antioxidants	23	25.8
Anticoagulants	21	23.6
Herbal/Nutritional CAT method used		
Butter	27	20.6
Garlic	37	28.2
Herbal Teas	11	8.4
Dead nettle	47	36
Olive	9	6.8
Symptoms corrected by CAT methods used		
Pain	13	7.3
Improvement in functions	19	10.7
Depression	43	24.1
Fatigue	35	19.6
Insomnia	19	10.7
Lack of energy	49	27.6
Reasons for CAT implementation		

Suitable for lifestyle	59	33.1
More effective	29	11.3
Easier access compared to medical treatments	22	12.4
Cost is lower	36	20.2
It's easier to make a contact with the supplier	12	6.8
More effective in reducing symptoms	20	11.2
Knowledge of the physician / nurse from the use of CAT (n:178)		
Yes	142	79.8
No	36	20.2
Positive approaches of Physician/Nurse towards CAT status (n:178)		
Yes	129	72.5
Neutral	29	16.3
No	20	11.2
Satisfaction status from the CAT practice (n:178)		
High level	110	61.8
Medium level	34	19.1
Low level	34	19.1

Table 2. Distribution of some of the characteristics of individuals according to the use of CAT (n=250)

	CAT Users		Non-CAT Users		
	Number of users	%	Number of users	%	
Age					
20-30	8	26.7	22	73.3	$X^2=46.155$
31-41	35	59.3	24	40.7	$P=0.000$
42-52	45	80.4	11	19.6	
53-63	47	85.5	8	14.5	
64 and older	43	85.5	7	14.0	
Gender					
Female	100	69.9	43	30.1	$X^2=0.263$
Male	78	72.9	29	27.1	$P=0.608$
Marital Status					
Married	160	72.4	61	27.6	$X^2=1.334$
Single	18	62.1	11	37.9	$P=0.248$
Educational Status					
Illiterate	30	100	0	0.0	
Literate	34	75.6	11	24.4	

Primary School	69	70.4	29	29.6	X²=18.804
High School	28	57.1	21	42.9	P²=0.001
University or higher	17	60.7	11	39.3	
Occupation					
Unemployed	40	93.0	3	7.0	
Civil servant	22	61.1	14	38.9	X²=16.770
Housewife	72	72.0	28	28.0	P=0.002
Laborer	24	55.8	19	44.2	
Self-employed	20	71.4	8	28.6	
Smoking					
Yes	39	47.0	44	53.0	X²=35.522
No	139	83.2	28	16.8	P=0.00
Alcohol use					
Yes	12	44.4	15	55.6	X²=10.567
No	166	74.4	57	25.6	P=0.001
Perception of general health status					
Poor	53	60.9	34	39.1	X²=10.153
Medium	90	81.1	21	18.9	P=0.006
Good	35	67.3	17	32.7	
Disease Stage					
Stage 2	0	0.0	4	100	X²=16.466
Stage 3	88	65.7	46	34.3	P=0.000
Stage 4	90	80.4	22	19.6	
Disease Duration					
0-2 years	23	36.5	40	63.5	
3-5 years	41	70.7	17	29.3	X²=55.633
6-8 years	75	89.3	9	10.7	P=0.000
9 years and more	39	86.7	6	13.3	
Concomitant illness					
Yes	158	87.3	23	12.7	X²=82.825
No	20	29.0	49	71.0	P=0.000
Cancer in the family					

Yes	144	77.0	43	23.0	X²=12.196
No	34	54.0	29	46.0	P=0.000
Treatments received					
Chemotherapy	17	27.0	46	73.0	X²=80.301
Chemotherapy and radiotherapy	161	86.1	26	13.9	P=0.000
Cancer type					
Lung cancer	29	70	12	29.3	
Breast cancer	34	60.7	22	39.3	X²=32.548
Urinary cancer	21	53.8	18	46.2	P=0.000
Gastrointestinal cancer	72	94.7	4	5.3	
Genitourinary cancer	22	57.9	16	42.1	

Discussion

In our study, 71.2% of the cancer patients were found to use CAT. Yavuz et al. (2007) reported that 87% of patients with breast cancer used CAT. In a study conducted by Kucukkoner et al. (2013) with cancer patients, the use of CAT was reported to be 62%. In a study conducted by Malassiotis et al. (2005) with cancer patients in 14 European countries, the use rate of CAT was determined to be 36% and had a wide distribution between 15 and 73%. A study conducted by Tascilar et al. (2006) with cancer patients reported that the frequency of using CAT was between 15.7% and 71% in Australia, 49% in New Zealand and Canada, 98% in China, 25-84% in the USA and 47.7% in Turkey. Our results are similar to those in the literature.

In a study conducted by Guven et al. (2013), 48.8% of the patients stated that the source of their information about CAT practices were their spouses, fathers, relatives or family members. Dayapoglu & Tan (2016) reported that 31.3% of the patients stated that the sources of their information about CAT practices were their family members. Similar results were found by our study. This shows that the people who guide patients to CAT practices are not professionals, and therefore, that society needs to offer educational training about CAT practices. The CAT practices most commonly used by cancer patients are touch therapy, herbal medicines, massage, vitamin and minerals, praying, relaxation, yoga, reiki, reflexology, diet techniques, acupuncture and acupressure (Arye et al., 2014; Arye et al., 2012; Ausanee Wanchai, 2010; Bebis et al., 2014; ; Ezeome & Anarado, 2007; Kav et al., 2008; Lettner, Kessel & Combs 2017; Lin & Chiuc, 2011; Molassiotis et al., 2005; Molassiotis

et al., 2006; Yavuz et al., 2007). In addition, studies have shown that having different cultural characteristics and beliefs in different regions causes differences in the use of CAT (Ausanee Wanchai., 2010; Bebis et al., 2014; Horneber et al., 2012). Our study determined that the most commonly used CAT methods are psychological/behavioral or herbal/nutritional. Our study also determined that the most commonly used herbal treatments were nettles and garlic (Arye et al., 2012; Juraskova et al., 2010; Kav et al., 2008; Lin et al., 2011; Set, 2011; Wieland et al., 2011). The most commonly used psychological/behavioral methods were religious methods (Arye et al., 2014; Juraskova et al., 2010; Set, 2011). These results resemble those in the literature (Kav et al., 2008; Kucukoner et al., 2013; Molassiotis et al., 2005; Tan, Uzun & Akcay, 2004; Yavuz et al., 2007). Dayapoglu & Tan (2016) reported that CAT methods are most effective for fatigue, insomnia and functional recovery, while patients use CAT methods to increase their quality of life, improve quality of life, and ease of access and lifestyle. Pud et al. (2005) determined that the reason for the use of CAT methods was to fight the disease, physical and emotional well-being and increasing feelings of hope and optimism. CAT methods were found to increase physical and emotional well-being. Molassiotis et al. (2005) found that patients use CAT methods to support the body's struggle with the disease and their physical and emotional well-being. In our study, while individuals stated that CAT methods were appropriate for their lifestyle, more effective against disease and easier to access than medical treatment, CAT methods were found to be good for energy deficiency, depression and fatigue. This

result suggests that individuals use CAT practices to reduce complaints that are caused by the disease. Our study determined that 79.8% of physicians and nurses were aware of the CAT methods used by the patients, and 72.5% of them were positive about them. Some studies have reported that physicians and nurses were not aware of the CAT methods used (Ezeome et al., 2007; Dayapoglu et al., 2016; Guven et al., 2013). Like our study, another study found that the physicians and nurses were informed about the CAT methods used (Teng et al., 2010). This result suggests that physicians and nurses should regularly ask about CAT use by patients and have a positive view of CAT use. Studies have shown that the majority of patients are satisfied with the use of CAT (Beretta et al., 2017; Dayapoglu & Tan, 2016; Pud et al., 2005; Teng et al., 2010). Similar results were found by our study. Our study found that the frequency of CAT use increased with age, and that individuals with another chronic disease use more CAT practices (87.3%) than others. It found that the relationship between the use of CAT (77%) and age, family history of cancer and other chronic illnesses was statistically significant ($p < 0.05$) (Table 2). Studies of the use of CAT for individuals with hypertension have also found that CAT use was higher in individuals with other chronic illnesses besides hypertension (Guyen et al., 2013). The increase in the number of chronic diseases causes more symptoms of illness and is thought to cause patients to use more CAT to relieve them. It can be said that individuals with cancer stories in their family have more CAT applications depending on their experience. Our study determined that the relationship between educational status and use of CAT was statistically significant ($p < 0.05$) (Table 2). As the level of education increases, individuals are more aware of CAT use. Our study found that non-smokers use CAT practices more (83.2%) than smokers. Non-alcohol users use more CAT practices (74.4%) than to alcohol drinkers, and the relationships between smoking and alcohol use and CAT use were statistically significant ($p < 0.05$) (Table 2). Similar results were found by Buntzel et al. (2008). Our study determined that the frequency of CAT increased as the duration and stage of illness increased. The relationships between the duration and stage of illness and the use of CAT were statistically significant ($p < 0.05$) (Table 2). Kav et al. (2008) and Kucukoner et al. (2013) found that the duration and stage of the disease were related to the use of CAT. It can be thought that the increase in the duration and the stage of illness leads to increased symptoms, which may be related to increased use of CAT. Our study found that those

who perceive their general health condition as moderate (81.1%) had a higher ratio of CAT use. It found that individuals with gastrointestinal cancer use more CAT than patients with other types of cancer, and that those who had received chemotherapy and radiotherapy use CAT more. The relationship between marital status and gender and the use of CAT was found to be statistically insignificant ($p > 0.05$) (Table 2). Molassiotis et al. (2005) found that patients use CAT methods to support the body's struggle with the disease and their physical and emotional well-being. Buntzel et al. (2008) found that the patients with breast cancer, followed by Hodgkin's lymphoma, renal cell carcinoma, rectal cancer and prostate cancer, prefer CAT applications. This may be due to the different numbers of patients in these groups. Research with a larger sample of patients may give better results. Since side effects occur more frequently in patients treated with more than two different treatments, the frequency of CAT use may be increased to prevent this.

Conclusions

Our study determined that patients with cancer use CAT, that psychological/behavioral therapies ranked first among CAT methods, and that those who have another chronic disease use more CAT. It determined that the reasons for using CAT were appropriateness to the patients' lifestyles, effectiveness against the disease and easier access compared to medical treatment, respectively. It was determined that relatives were the main source of information about CAT, and that the majority of the individuals share information about CAT with their physicians and nurses. The relationship between age, occupation, smoking and alcohol use, type of cancer, presence of other chronic diseases, duration and the stage of illness, perception of cancer, presence of cancer in the family, treatment and educational status and use of CAT was found to be statistically significant. These results suggest that- Health professionals should regularly evaluate individuals with chronic disease for CAT use and educate and advise them about safe CAT use.

- In nursing practice, patient information forms should contain questions about the use of CAT.

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