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Study of complementary and alternative medicine usage of cancer patients receiving medical oncology clinic medicine and its relationship with their quality of life

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ABSTRACT

Background: This study has been implemented with the aim of examining the situation and the quality of life of cancer patients receiving treatment at an oncology clinic and using complementary and alternative medicine (CAM). **Methods:** Research has been carried out with 85 colorectal and lung cancer patients and was conducted from March 23 to May 1, 2011. The "Introductory Information Form," "Question Form for the Status of Using CAM," and "Rotterdam Symptom Checklist" have been used as data collection tools. **Results:** It has been found in this study that the rate of cancer patients using CAM was 51.8%. The most popular CAM method was herbal cures. In our research, we found that CAM was used in the young age groups with a high level of education, in patients in the third phase of the disease, and in the women. It has also been found that patients were informed by their close environment, and they were reluctant to disclose the CAM method they use to a health-care professional. Most of the patients using CAM intended to increase their body strength. When cancer patients quality of life using or not using CAM was assessed it was not statistically different in terms of physical, psychological, and daily life activities. **Conclusion:** It is of the utmost important for the nurses providing primary care for the cancer patients in the implementation of conventional treatment, to be able to make assessments about the usage of CAM by patients and provide appropriate advice.

KEY WORDS: Cancer, complementary and alternative medicine, nursing

INTRODUCTION

Cancer, due to the number of patients affected and the high mortality rate, is an important health problem, and throughout the world, it is accepted as the second most frequent cause of death, following cardiovascular illnesses [1].

The uncertainty that cancer patients have about their future and death has negative effects on their emotions, resulting in increased concerns and fears [2]. Cancer patients and their relatives who experience these problems have the tendency to try other treatments to recover from their illness and improve their quality of life. Complementary and alternative medicine (CAM) methods have been developed particularly for this reason. In addition, it has been observed that more and more cancer patients have tried these methods around the world [2-4]. Particularly, since the mid-20th century, the improvements observed in the areas of diagnosis and treatment of illnesses, as well as the frequency of chronic, degenerative and malignant illnesses due to extended life span, interest in CAM has increased highly [5]. The World Health Organization has described CAM as a broad set of health-care practices that are not part of that country's own tradition and are not integrated into the dominant health-care system [6].

Cancer patients have been choosing the utilization of CAM for many reasons such as improving wellness and life quality, reducing the side effects of drugs, improving the immune system, recovering from feelings of despair, and reducing the side effects of conventional cancer treatments [2,5,7-10]. In addition, because cancer treatment is limited, due to the toxic effects of known conventional cancer treatments or treatments that do not guarantee a long lifespan, thousands of cancer cases have been observed to choose CAM methods every year [7].

Nursing as a profession, who play an important role in the health-care group, has long claimed the term holistic and has incorporated the word, using various definitions, into nursing literature and practice literature [11]. Nurses who adapt a holistic approach in patient care need to have knowledge of its

side effects and reliability of CAM [12]. Nurses communicate effectively with patients as they spend more time with them in health-care centers. As the technological facilities and scientific knowledge improve, the role and responsibilities of nurses have changed dramatically [5]. CAM has been used in nursing practices more and more [13].

Patients and their relatives are being informed about CAM in many different ways. However, missing and false information may cause disturbances and unwanted results in treatment. Health professionals especially nurse with adequate information on this topic will minimize these effects. For this reason, health professionals are required to have accurate information and to give directions to the patients and the relatives accurately [14]. This study has been planned to define the CAM usage situation of cancer patients being treated in the medical oncology clinics and to clarify the connection of CAM with life quality.

METHODS

This is a descriptive study. Colorectal- and lung-cancer patients, who finished their chemotherapy while being treated in Medical Oncology Department of Gulhane Military Medicine Faculty Training and Research Hospital, were included in this research group. A total of 85 patients who applied to the GATF Training and Research Hospital have been reached related to this study between the dates of March 23rd, 2011, and May 1st, 2011. Three tools have been used to collect data. First, the "Introductory Information Form," which was prepared by the researcher after investigating literature on the topic. The form includes questions about socio-demographic features, the diagnosis of illness, stage of illness, monthly income, job, and educational background of the patient. Second, the "Question Form for the Status of Using CAM" was developed by the researcher after investigating the literature about the topic. Third, the "Rotterdam symptom checklist" was made to determine the quality of life among cancer patients. The Rotterdam symptom checklist was developed by De Haes *et al.* [15], in 1983, for the assessment of symptoms noted by cancer patients in clinical research. The scale has 39 items and 4 subscales. In the original form, the validity of the Rotterdam symptom checklist has been determined to be 0.88. The validity of the Rotterdam symptom checklist has been determined in Turkey among breast cancer patients by Can *et al.* [16]. Before the research started, GATF Training and the Research Hospital ethics department was informed, and the necessary permissions were acquired. The "Informative Document of permittance for Volunteers" was signed before the patients were asked questions. Only volunteer patients were used for the research. After the permissions were acquired, necessary explanations were made, and questions were asked in a face-to-face interview. The duration for filling a survey is 15 minutes on average. Data collection and surveys were prepared by practicing on 10 patients who were convenient for the criteria of the research. SPSS 15.0 was used for statistical assessment of the data gathered. Numbers and percentages were used for data dispersions; Chi-square tests, *t*-tests, and variant analysis were used for the comparison of the descriptive data. An arithmetic mean and standard deviation were used to display descriptive data.

RESULTS

Of patients who typically participate in the project 54.1% are over 60, 60.0% are male, 37.6% graduated from primary school, and 85.9% are married [Table 1]. Of the patients who took part in this research, 55.3% have colon cancer, 47.1% experienced a period of chemotherapy of fewer than three months [Table 2]. 51.8% of the participants have used any form of CAM after been diagnosed [Table 3]. 45.5% of the participants who has experienced any form of CAM reported that they started using CAM after their treatment was completed, 77.3% of them by the recommendation of an acquaintance, 34.1% by media knowledge, and 63.6% to increase body resistance [Table 4]. When the reason for not choosing CAM was asked to the participants, 51.2% of them said that they did not think of CAM as a useful practice, 39.0% said they were afraid of it, and 39.0% of them said that it was not suggested by their doctors.

Herbal medicine with the rate of 86.4% and religious inspiration 54.5% are the most popular CAM methods among CAM experienced patients [Table 5]. 39.5% of CAM users who

Table 1: The distribution of patients according to their socio-demographic characteristics (n=85)

Variables	Categories	*n* (%)
Age	21-50	22 (25.9)
	51-60	17 (20.0)
	>60	46 (54.1)
Sex	Male	51 (60)
	Female	34 (40)
Education	Illiterate	6 (7.1)
	Primary	32 (37.6)
	Secondary	12 (14.1)
	High	22 (25.9)
	University and above	13 (15.3)
Marital status	Married	73 (85.9)
	Single	4 (4.7)
	Widow	8 (9.4)
Residence	City center	56 (65.9)
	Town	17 (20)
	Village	12 (14.1)

Table 2: Introductory findings of patients' medical characteristics and factors about CAM usage status

Variables	Categories	*n* (%)
Diagnosis	Colon cancer	47 (55.3)
	Lung cancer	26 (30.6)
	Rectum cancer	12 (14.1)
Current phase	Phase 1	9 (10.6)
	Phase 2	25 (29.4)
	Phase 3	34 (40.0)
	Phase 4	17 (20.0)

CAM: Complementary and alternative medicine

Table 3: Patients' CAM usage status

Variables	Categories	*n* (%)
CAM usage status	Yes	44 (51.8)
	No	41 (48.2)

CAM: Complementary and alternative medicine

practice herbal medicine expressed that they used stinging nettle, 57.9% bought it from a herbalist, and 92.1% of them used it in oral ways.

While 38.6% of the CAM users talked about the method, they use to a health professional, 61.4% never talked to a health professional about this issue. When the response of the health professional was asked to the CAM users who talked to them, a great majority of them 64.7% said that their health professional had not recommended them to use it during their treatment period. The rate of users who were encouraged by their health professional to use CAM was 17.6% [Table 6].

No significant difference was observed among male and female users of CAM ($P > 0.05$), yet female patients use CAM more compared to male patients. A difference was observed among CAM users in terms of educational status ($P < 0.05$). Patients who were educated for more than 8 years used CAM more compared to patients who were educated for less than 8 years [Table 7].

Among the CAM users who participated in this research, a meaningful difference was observed in terms of the diagnosis of the illness ($P < 0.05$). Rectum cancer patients used CAM more commonly compared to other diagnosis groups (75.0%). Later, colon cancer patients rank as the second (57.4%) and lung cancer patients rank as the last for the usage of CAM [Table 8]. In this study, that determines the effect of CAM usage on patients' lives, the physical, physiological, and daily life activities of cancer patients, who use and who do not use CAM, were considered in terms of scale rates. CAM using cancer patients physical scale rate is 33.165 ± 23.049, physiological scale rate is 26.731 ± 21.571, and daily life activities scale rate is 66.761 ± 29.715, and these numbers are observed as lower compared to the patients who do not use CAM. However, any meaningful differences on a statistical basis could not be found ($P < 0.05$) [Table 9].

Table 4: Distributions of various factors concerning patients' CAM usage

Variables	Categories	*n* (%)
Time of CAM method practice	After the treatment	20 (45.5)
	Immediately after being diagnosed	17 (38.6)
	Along the treatment	5 (11.4)
	Before the treatment	2 (4.5)
Reason (s) convinced to use CAM	Acquaintances' recommendation	34 (77.3)
	Information from media	15 (34.1)
	Patients who benefited	11 (25)
	Religious belief	5 (11.4)
	Health staff recommendation	4 (9.1)
Main reason (s) of CAM usage	To improve body strength	28 (63.6)
	To support the treatment taken	24 (54.5)
	To eliminate the symptoms related to the disease	27 (31.8)
	To relieve and for spiritual reasons	9 (20.5)
	To reduce the adverse effects of chemotherapy	5 (11.4)
	To believe this is the real treatment of the disease	2 (4.5)

CAM: Complementary and alternative medicine

Table 5: Methods that patients prefer to use

Variables	Categories	*n** (%)
CAM method	Herbal treatments	38 (86.4)
	Religious inspiration	24 (54.5)
	Vitamin support	14 (31.8)
	Honey/royal jelly	9 (20.5)
	Carob molasses	3 (7.1)
	Kefir	1 (2.3)
	Bioenergy	1 (2.3)

**n* has been folded. CAM: Complementary and alternative medicine

Table 6: CAM user patients' health staff communication

Variables	Categories	*n** (%)
Health staff's awareness of CAM usage	Knows	17 (38.6)
	Does not Know	27 (61.4)
Reason not to inform health staff	I thought that it does not interest them	16 (59.3)
	I was afraid of being reproved	5 (18.5)
	I do not think they are knowledgeable	3 (11.1)
	I hesitated not to be taken seriously	3 (11.1)
Health staff's reaction	He/She did not advise me to use along treatment	11 (64.7)
	S/He supported me to use	3 (17.6)
	S/He did not support, explained the harms	3 (17.6)
	S/He did not support without any reason	1 (5.9)

**n* has been folded. CAM: Complementary and alternative medicine

Table 7: Comparison of CAM usage with socio-demographic factors

Variables	Complementary and alternative medicine usage status			*P*
	Categories	*n** (%)		
		Yes	No	
Age	21-50	14 (63.6)	8 (36.4)	0.432
	51-60	8 (47.1)	9 (52.9)	
	>60	22 (47.8)	24 (52.2)	
Sex	Male	22 (43.1)	29 (56.9)	0.051
	Female	22 (64.7)	12 (35.3)	
Education	<8 years	21 (42.0)	29 (58.0)	0.031
	>8 years	23 (65.7)	12 (34.3)	

**n* has been folded. CAM: Complementary and alternative medicine

Table 8: Comparison of CAM usage with the factors about the disease

Variables	Complementary and alternative medicine usage status			*P*
	Categories	*n** (%)		
		Yes	No	
Diagnosis	Rectum cancer	9 (75.0)	3 (25.0)	0.02
	Colon cancer	27 (57.4)	20 (42.6)	
	Lung cancer	8 (30.8)	18 (69.2)	
Current phase	Phase 1	4 (44.4)	5 (55.6)	0.687
	Phase 2	12 (48.0)	13 (52.0)	
	Phase 3	17 (50.0)	17 (50.0)	
	Phase 4	7 (64.7)	6 (35.3)	

**n* has been folded. CAM: Complementary and alternative medicine

Table 9: Comparison of physical, physiological, and GYA converted sub-dimension points of patients in accordance with CAM usage

Scale points	CAM usage (Mean±SD)		
	Yes (n=44)	No (n=41)	P
Physical scale	33.165±23.049)	25.474±22.283)	0.122
Physiological scale	26.731±21.571)	24.854±25.141)	0.712
GYA	66.761±29.715)	71.239±31.139)	0.499

CAM: Complementary and alternative medicine, SD: Standard deviation

DISCUSSION

As the cancer incidence and the number of cancer cases increases and the medical technologies and science improve rapidly in cancer treatments. Cancer treatments have much more side effects and related to this, we can see that CAM usage is quite high as well [17]. In the future, it is easy to say that CAM usage among cancer patients will increase even more.

In this study, it is found that 44 of the patients (51.8%) have used CAM during any period in their illness after being diagnosed. When looking at international studies throughout the world, similar changes can be observed compared to our country. A study, which was performed by Malasiiotis *et al.* [18], including cancer patients in 14 different countries and it shows that Italy is the first country in using CAM 73.1%, and Greece is the last 14.8%, and Turkey is observed to have a 37.0% CAM usage rate. A study of Yun and friends [4] shows the rate of CAM usage among cancer patients as 42%, Kang and friends' study among breast cancer patients shows that the rate is 57.4% [3]. These studies, being quite similar to ours, indicate that CAM usage among cancer patients is increased.

In this study, acquaintance recommendations and media are seen as the biggest convincing reason for patients. Similar results can be found in the literature as well [7,19-24]. In this study, more than half of the patients have mentioned the main reason for using CAM was to increase body resistance, whereas the other half mentioned it to support the treatment being taken. CAM usage reasons are found in many different ways in the literature as; to combat against the cancer and to increase the body resistance, to improve physical and emotional wellness [18], to avoid the illness believing it to be useful [25], to combat against the disease and considering herbal treatment as harmless [26], to increase the quality of life by supporting conventional treatment [19], to cure cancer [23] to fight against cancer and to increase the sufficiency of body and to do every little thing for fighting cancer [27] to prevent cancer from happening again [3], and to reduce side effects and improve the immune system [9]. This study also shows that half of the patients who do not use CAM give the reason of not using CAM as not finding it very useful. There are also many patients who are afraid of using CAM or mentioned that their doctors considered it a negative idea. Apart from our study, in a study of Malassiotis *et al.* [28], patients reported that they have never actually thought of using CAM as they are satisfied enough using conventional treatments, whereas, in the study of Algier *et al.* [26], patients mentioned their not using CAM reason as being satisfied with the treatment they receive.

Herbal medicines are the most popular method used in this study. They rank as first in other studies performed in our country too [8,19,21,23-25,29,30]. Herbal medicine usage is common in European countries too [23]. Some herbs are especially known to be widespread in some countries. For example, stinging nettle in Turkey, mistletoe in Switzerland, olive leaf paste in Greece, *Aloe vera* in Serbia and Spain, and ovosan in Czech Republic are some of the famous herbal medicines in these countries [18]. Herbal medicines usage has begun to be popular in our country and the world. The increase in informative programs about the beneficial ways of using herbal medicines and internet knowledge has made people aware of the herbal medicines, and therefore, are now using them. In addition, little expenses, being easy to reach, believing that no plants can be dangerous and environmental effects are among the reasons for the use of CAM in cancer patients.

Studies show that religious relief is the second most common CAM method (54.5%). Religious inspiration is seen as a popular usage in some studies [20,31,32]. During the process of the illness, cancer patients try to address their life-threatening state with their faith and spirits while carrying on their conventional treatments. Nurses, who take an important role in taking care of the patients, must consider the spiritual dimensions of them along with physical, physico-social ways of totalitarian maintenance. Related to this, nurses ought to take care of their patients according to their biologic, physiologic, social, and spiritual states and should be active in satisfying their spiritual needs.

In this study, it has been found that more than half of cancer patients do not talk to medical professional about the methods they use as these methods do not interest them. Furthermore, in literature, it is asserted that patients rarely talk to a medical professional about CAM usage [7,8,19,21], and they note that these methods do not interest them [3]. Patients do not talk to medical professionals for fear of having negative reactions from them, and they receive information about this topic mostly from their close acquaintances and the media. As a negative result of this, they can obtain scientifically incorrect information and use harmful complementary and alternative treatments that may hurt them. Medical professionals are required to prevent these by informing patients. Particularly nurses, who play the key role in the treatment of patients, and therefore, are communicated easily, are supposed to be careful about CAM usage, warn patients and take necessary measures in case of any risky situations.

In this study, it is observed that young, educated people (more than 8 years) and women use CAM relatively more than other groups. Compared to other studies, our study also confirms young people using CAM more [8,20-22,27]. As having cancer may pose a threat for the plans of patients, side effects may harm body images and reduce independent functions of people, which can cause unemployed, young people prefer to use CAM relatively more than elder people. In this study, it was

found women use CAM more than men. This result is similar with other research [8,19,25-27]. According to the literature, although women use CAM more [8,19,25-27], men also use it quite a lot [18,21,33]. When this study is considered according to the education level, CAM usage was quite high among well-educated people. This result is similar to the results from other researches [7,8,20,28,33].

In this study, it was found that if the patient was in phase 3 when diagnosed with cancer, CAM usage is higher. This result is similar to the results from other researches [7,8,34]. In the literature, it is observed that if the disease was improved by the time patients met cancer, they tend to use more CAM [7]. Patients use more CAM methods to make sure that they have tried everything possible, look for more hope and overcome the disease.

When the life qualities of people, who take part in this study, are considered, no statistically meaningful difference was found in terms of physical, physiological, daily activities between people who use CAM and who do not ($P > 0.05$). The request of improving their physical and physiological wellness and related to this enrolling their daily activities in a better way is one the important reasons that encourages cancer patients to use CAM. Similar results can be observed when local and international studies investigated. According to a study by Hlubacky *et al.* [35], the emotional and social wellness levels of patients who use CAM are less scores than those who do not. In the study of Spadico *et al.* [33], it was noted that CAM usage is directly related to the levels of anxiety and depression and patients who use CAM reveal more mental stress, and therefore, are more stressful. Apart from our study, in the study of Can *et al.* [10], cancer patients who use religious practices (prayer etc.) have more problems physiologically, socially, emotionally, and physically with low life quality, whereas patients who use mind-body practices (exercise, meditation, acupressure, reiki, and acupuncture) have higher life qualities. Shneerson *et al.* [36] found out that, yoga and meditation improve life quality, homeopathy has developed the life qualities of the cancer patients who took part in trial groups, medical Qigong improves life quality mentally and physically while no difference is recorded between trial and control groups who use mistletoe herbal [36].

CONCLUSION

In the present study, it was found that the use of CAM was common among patients. The most commonly used CAM in this study was herbal therapy. It was also observed that the percentage of patients stating that they obtained information from health professionals was low. CAM usage has been improving throughout the world and in our country, especially among the cancer patients. Along with this usage popularity, some toxicities and adverse effects may appear and cause deterioration in the quality of life and vital functions of patients. In addition, it may harm the healing power of the conventional treatment applied to the patients. Related to this, a qualified and effective intercourse of the health personnel is of significant importance. Due to the technological improvements of health, and as scientific knowledge develops day by day, the education, role, and the responsibilities of nurses have undergone an important change. Nurses, who are important members of the health-care team, can communicate with patients easily and observe their social, physiological, and physiological problems better. To improve the caring quality of oncology nurses, it is necessary to know the varieties, reasons of CAM methods the patients use and to listen to them unbiased to understand the attitudes and beliefs that patients employ toward these methods that ultimately inform them. As they are knowledgeable about CAM usage, nurses should also provide communication between patients, their acquaintances, and health-care personnel, as well as improving nursery practices on CAM usage and directing healthy/unhealthy people accurately about the topic.

LIMITATIONS

This study had several limitations that need to be considered when the findings are interpreted. The study included only the patients in the oncology clinic excluding those in other clinics. The sample was small, and findings were limited to a single inpatient setting of a single region in Turkey. These drawbacks limit the generalizability of the findings to patients to colorectal and lung cancer in Turkey.

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