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ORIGINAL ARTICLE / ORİJİNAL MAKALE

# Investigation of the Use of Complementary and Alternative Medicine by Patients Underwent Oncological Surgery

## Onkolojik Cerrahi Uygulanan Hastaların Tamamlayıcı ve Alternatif Tıp Kullanımının Araştırılması

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## Abstract

**Background:** Cancer patients use Complementary and Alternative Medicine (CAM) to cope with the side effects of cancer treatments, provide nutritional support, strengthen the immune system, and speed recovery.

**Objectives:** This study aimed on the utilization of complementary and alternative medicine in post-oncological surgery patients.

**Methods:** This descriptive and cross-sectional study was conducted between April 1 and October 1, 2021, involving 322 patients who underwent surgical intervention due to a cancer diagnosis in the oncology unit of a university hospital in western Turkey. The data were collected using the "Patient Identification Form" and "Form for Determining the Use of CAM". Descriptive statistical methods were used in the analysis of the data.

**Results:** It was determined that approximately half of the patients who underwent oncological surgery utilized CAM, with 87.5 % of CAM users employing biological-based methods, 90.6 % utilizing mind-body interventions, and 78 % using both methods concurrently. Moreover, it was found that 3.1 % of patients experienced side effects related to the method they employed.

**Conclusion**: Patients were found to frequently utilize CAM both prior to surgery and in the postoperative period. It was determined that patients were influenced by their experiences and aimed to strengthen their immunity, support treatment, and protect themselves from side effects when choosing CAM. It is recommended that healthcare professionals identify and document the reasons for patients' use of CAM and the methods they apply.

**Keywords:** Complementary Therapies, Surgical Oncology, Surgery.

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## Öz

**Giriş:** Kanser hastaları, kanser tedavilerinin yan etkileriyle baş etmek, beslenme desteği sağlamak, bağışıklık sistemini güçlendirmek ve iyileşmeyi hızlandırmak için Tamamlayıcı ve Alternatif Tıp (TAT) kullanmaktadır.

**Amaç:** Bu çalışmada onkolojik cerrahi geçiren hastaların tamamlayıcı ve alternatif tıp kullanımının araştırılması amaçlanmıştır.

**Yöntem:** Tanımlayıcı ve kesitsel olan bu çalışma, 1 Nisan - 1 Ekim 2021 tarihleri arasında Türkiye'nin batısındaki bir üniversite hastanesinin onkoloji ünitesinde kanser tanısı nedeniyle cerrahi müdahale uygulanan 322 hasta ile gerçekleştirildi. Veriler "Hasta Kimlik Formu" ve "TAT Kullanımını Belirleme Formu" kullanılarak toplandı. Verilerin analizinde tanımlayıcı istatistiksel yöntemler kullanılmıştır.

**Bulgular:** Onkolojik cerrahi girişim uygulanan hastaların yaklaşık yarısının TAT kullandığı, TAT kullananların % 87,5'inin biyolojik temelli yöntemleri, % 90,6'sının zihin-beden müdahaleleri ve % 78'inin her iki yöntemi bir arada kullandığı belirlendi. TAT kullanan hastaların % 3,1'inde uyguladığı yönteme bağlı yan etki yaşadığı belirlendi.

**Sonuç:** Hastaların sıklıkla ameliyat öncesinde TAT'a başvurdukları ve sonrasında devam ettikleri bulundu. Ayrıca, hastaların yaşadıkları deneyimlerden etkilenerek TAT seçerken bağışıklıklarını güçlendirmeyi, tedaviyi desteklemeyi ve aynı zamanda kendilerini yan etkilerden korumayı amaçladıkları belirlendi. Sağlık çalışanları tarafından, hastaların TAT kullanma nedenlerinin ve uygulanan yöntemlerin belirlenerek kaydedilmesi önerilmektedir.


**Anahtar Kelimeler:** Tamamlayıcı Tedaviler, Cerrahi Onkoloji, Cerrahi.

## INTRODUCTION

The term Complementary and Alternative Medicine (CAM) is an umbrella term that covers both "complementary therapies" and "alternative therapies." Complementary medicine refers to the use of CAM alongside modern medical practices, while alternative medicine involves using CAM instead of modern medicine (National Center for Complementary and Integrative Health [NIH], 2021a). Research indicates that cancer patients frequently resort to these practices (Lopez et al., 2019; Rasheed et al., 2020; Wode, Henriksson, Sharp, Stoltenberg & Hök, 2019). The rates of CAM use among cancer patients in the literature range from 30% to 84% (Chui, Abdullah, Wong & Taib, 2018; Hill et al., 2022; Karakoç, 2020; Kasprzycka et al., 2022; Puskulluoglu et al., 2021; Wolf et al., 2022). Cancer patients utilize CAM to cope with the side effects of cancer treatments, provide nutritional support, bolster the immune system, and hasten healing (Lederer, Samstag, Simmet, Syrovets & Huber,2022; Firkins et al., 2018; Kanak, Öztür, Özdemir, Kübra & Yılmaz, 2021; National Cancer Institute, 2023; Savlak, Çağındı, Dedeoğlu, İnce, & Köse, 2022).

Currently used CAM practices include herbal supplements, dietary supplements, meditation, yoga, massage, manipulation, acupuncture, and various other products and applications (NIH, 2021b; National Cancer Institute, 2023; Savlak et. al., 2022). The most used products both worldwide and in Turkey are multivitamins/minerals (MVM), omega-3 fatty acids, and fish oils. In addition, animal products and religious rituals are also among the preferred CAM practices in Turkey (Alay et al., 2018; Karakoç, 2020;

Ulusoy & Keskin, 2021). The implementation of CAM varies according to individuals' religions, lifestyles, cultures, and traditions (Savlak et al., 2022; Wode et al., 2019). Although CAM provide health benefits when used consciously, reports suggest that they can also lead to negative outcomes (Alowais & Selim, 2019; Atalay & Erge, 2018). For example, many herbal products contain biologically-potent active ingredients, and their effectiveness and safe use can be influenced by factors such as drying, storage conditions, pesticide residues, heavy metals, and toxins used in the products (Atalay & Erge, 2018; Kanak et al., 2021; Savlak et al., 2022). Moreover, CAM use in oncology patients may alter the effects of chemotherapeutic drugs. This may lead to a greater risk of complications in patients and negatively impact treatment. For instance, the antiplatelet effect of fish oil may increase the risk of bleeding in patients (Simpson, Forster, McMillan, & Anoopkumar-Dukie, 2021). Therefore, the use of such CAM should be taken into consideration, especially in patients undergoing surgical intervention. This is crucial in terms of preventing potential complications while planning care for patients in risky situations, ensuring patient safety, and improving the overall quality of care.

There are studies on the use of CAM in patients with breast cancer (Chui et al. 2018), kidney, prostate or bladder cancer (Mani et al. 2015), and those undergoing cardiac or thoracic surgery (Dalmayrac Quignon & Baufreton, 2016; Lederer et al. 2022), and radiation oncology (Kessel, Klein, Hack & Combs, 2018). In the studies, it was determined that each culture preferred different CAM applications and that they wanted to receive professional counseling on this subject. One of the common points of the studies was that patients often did not share their CAM use with the doctor. In these studies conducted in different cultures, it was emphasized that the use of CAM should definitely be taken into consideration in the perioperative process and that healthcare professionals should have more awareness and understanding of CAM use (Dalmayrac et al. 2016; Chui et al. 2018; Güvelï, Uzsoy, Özlü, Kenger & Ergün, 2021; Kasprzycka et al. 2022). In our country, the studies are more general and limited (Alay et al. 2018; Güvelï et al. 2021; Karakoç 2020; Ulusoy & Keskin, 2021). No study has been found that includes patients who have only undergone oncological surgery. This study aimed on the utilization of complementary and alternative medicine in post-oncological surgery patients.

### *Research questions*

What is the complementary and alternative medicine use status in patients undergoing oncological surgery?

What are the most common CAM methods used by patients undergoing oncological surgery?

## METHODS

### *Study design*

This is a descriptive and cross-sectional study.

### *Sample selection and patient characteristics*

The study data were collected in a university hospital in western Turkey between April 1 and October 1, 2021. The sample consisted of 322 patients over 18 years of age who underwent surgical intervention due to a cancer diagnosis. Patients with neurological and psychological problems were not included in the study. In this study, the sample size was determined by G*Power software, version 3.1. Using the data

from the study of Hill et al. (2022) and assuming 0.2 of the standard deviation as the lowest effect, the sample size was calculated as 280 patients with a margin of error of 0.05 at 80% power and 95% confidence interval. No specific sampling method was employed, as the study aimed to include the entire target population. The study was completed with 322 patients.

### *Data collection*

The data of the study were collected via face-to-face interviews with patients who underwent surgical intervention due to a cancer diagnosis. The data were collected using the "Patient Identification Form" and "Form for Determining the Use of Complementary and Alternative Treatment Methods".

***Patient Identification Form:*** The form included 13 questions prepared by using the literature knowledge on the demographic characteristics (age, gender, marital status, education level, place of residence, diagnosis, cancer stage, previous surgery, chronic disease, chemotherapy and radiotherapy status, regularly used medications) (Rasheed et al., 2020; Chui et al., 2018; Mani et al., 2015).

***Form for Determining the Use of Complementary and Alternative Treatment Methods:*** The form was created by the researchers as a result of the literature review (Rasheed et al., 2020; Chui et al., 2018). This form consists of items on CAM usage status, the reasons for using CAM, the timing of CAM use, the rationale for CAM use, the decision-making process regarding the use of CAM, obtaining healthcare professionals' opinions on the CAM method used and the status of continuing medical treatment while using CAM. The data collection form was read to the patients by the researcher, and it was filled out based on the patients' responses.

### *Ethics approval and consent to participate*

The study was approved by the Non-Interventional Clinical Research Ethics Committee of a university to conduct the study (08.03.2021/E-60116787-020-28761). Informed consent was obtained from all individual participants included in the study. The research was conducted in accordance with the Declaration of Helsinki. Permission was obtained from the institution of a university hospital (29.01.2021/E-65124556-600-13706). The participants were informed before the study data were collected, and and their informed consent was obtained within the scope of the principle of volunteering

### *Statistical analysis*

The Statistical Package for The Social Science version 25.0 (SPSS) program was used for statistical analysis. Number, percentage, minimum, maximum, mean and standard deviation were used in data analysis.

## RESULTS

The average age of the participants was 57.41 ± 13.44 (Min:18 - Max:89), and it was determined that 55.9% (n = 180) were male, 87 % (n = 280) were married, 40.7 % (n = 131) were primary school graduates, and 42.2 % (n = 136) had chronic illnesses and were continually on medication. The most common cancer types were lung cancer in 19.9 % (n = 64), breast cancer in 17.7 % (n = 57) and colon cancer in 17.7 % (n = 57). (Table 1).

Of the patient who participated in the study, 49.47 % (n = 160) used some form of CAM, with 87.5 % (n = 140) of CAM users turning to biological-based methods, 90.6 % (n = 145) participating in mind-body interventions, and 78 % (n = 125) using both methods together (Table 2).

**Table 1. Sociodemographic Data of Patients (n = 322)**

| Sociodemographic & Clinical features | X ± SD | Min-max |
|---|---|---|
| **Age** | 57.41 ± 13.44 | 18-89 |
| | **n** | **%** |
| **Gender** | | |
| Woman | 142 | 44.1 |
| Male | 180 | 55.9 |
| **Marital status** | | |
| Married | 280 | 87.0 |
| Single | 42 | 13.0 |
| **Educational status** | | |
| Illiterate | 18 | 5.6 |
| Literate | 94 | 29.2 |
| Primary school | 131 | 40.7 |
| High school | 49 | 15.2 |
| University | 30 | 9.3 |
| **Family type** | | |
| Lives alone | 25 | 7.8 |
| Nuclear family | 259 | 80.4 |
| Big family | 38 | 11.8 |
| **Diagnostic category** | | |
| Lung | 64 | 19.9 |
| Breast | 57 | 17.7 |
| Colon, rectum | 57 | 17.7 |
| Uterus, ovary | 32 | 9.9 |
| Stomach, esophagus | 24 | 7.5 |
| Bladder, kidney | 21 | 6.5 |
| Pancreas, liver | 20 | 6.2 |
| Prostate, testis | 17 | 5.3 |
| Lymph, brain, skin, bone etc. | 17 | 5.3 |
| Larynx, thyroid, mouth etc. | 13 | 4.3 |
| **Cancer stage** | | |
| 1 | 7 | 2.2 |
| 2 | 52 | 16.1 |
| 3 | 179 | 55.6 |
| 4 | 84 | 26.1 |
| **Chemotherapy** | | |
| Yes | 206 | 64.0 |
| No | 116 | 36.0 |
| **Radiotherapy** | | |
| Yes | 145 | 45.0 |
| No | 177 | 55.0 |
| **Chronic disease** | | |
| Yes | 136 | 42.2 |
| No | 186 | 57.8 |
| **Continuous drug use** | | |
| Yes | 136 | 42.2 |
| No | 186 | 57.8 |

A total of 70% (n = 112) of CAM method users reported hearing from other patients with the same illness that the treatment was helpful, 53.8 % (n = 86) believed that medical treatment alone was insufficient, and 41.3 % (n = 66) used CAM to strengthen their immune system and improve their quality of life. It was found that 20.6 % (n = 33) of CAM users decided to use it themselves, 38.1 % (n = 61) were influenced by their family, and 55.0 % (n = 88) were influenced by their friends. Half of all CAM users began utilizing it before surgery, 40.0 % (n = 64) consulted with a health professional about the method they used, 95.6 % (n = 153) continued with the medical treatment recommended for their illness while using CAM methods, 54.3 % (n = 87) found the method they used to be helpful, 3.1 % (n = 5) experienced side effects from the method they used, and 76.2% (n = 122) recommended the method they used to others (Table 3).

## DISCUSSION

The negative impacts upon quality of life resulting from complex and lengthy treatment in oncology patients often lead them to seek alternative remedies (Meyskens et al., 2016). Approximately half (49.7 % ) of the patients in the study who underwent oncological surgery resorted to CAM. The literature reports that the usage rate of CAM among cancer patients ranges from 30 % to 84 %. This rate is around 42.1 % in America, 48.2 % in Australia, 49.3 % in France, 70 % in China, and around 80 % in African countries (Firkins et al., 2018; Hill et al., 2022; Karakoç, 2020; Puskulluoglu et al., 2021; Wolf et al., 2022). Similar rates have also been reported in studies conducted in Turkey (Karakoç, 2020; Puskulluoglu et al., 2021; Ulusoy &

**Table 2. Patients' CAM Use Status and Methods Used**

| Variables | n | % |
|---|---|---|
| **Have you used any CAM methods other than medical treatment? (n=322)** | | |
| I used | 160 | 49.7 |
| I didn't use | 162 | 50.3 |
| **Biological-based therapies (Herbal and animal products (n=160)** | | |
| I used* | 140 | 87.5 |
| I didn't use | 20 | 12.5 |
| **Body-Mind interventions (Prayer, music therapy, massage, etc.) (n=160)** | | |
| I used | 145 | 90.6 |
| I didn't use | 15 | 9.4 |

Keskin, 2021). Individuals can be influenced to use CAM by many factors and they can vary by season (Savlak et al., 2022). Age, gender, education, place of residence, and beliefs are some of the more prominent factors affecting CAM usage. It has been reported that women, young people, and those with higher education levels have significantly higher rates of CAM usage (Keene, Heslop, Sabesan & Glass, 2019; Savlak et al., 2022; Wode et al., 2019). The study found that lung cancer (24.4%) and breast cancer (23.2%) patients used CAM the most. Other studies have also reported high usage rates of CAM among breast cancer patients (Kessel et al., 2018; Wode et al., 2019). One possible reason for cancer patients' preference towards CAM is that despite the increasing number of cancer cases and advancements in modern treatments, survival rates and quality of life are still low. Cancer patients and their families do not hesitate, therefore, to try the recommended methods (Yilmaz, 2020). The study found that around half of the patients started using CAM before the surgery, and about one-third started using them after the surgery, with approximately 12% using CAM both before and after the surgery. In a study of cardiac surgery patients, 14% of patients used CAM between consultation and surgery (Dalmayrac et al., 2016). In a study by Mani et al (2015), it was found that half of the patients who underwent urologic cancer surgery used CAM before the surgery, and 95% used CAM after the surgery. Wode et al. (2019) reported that 26% of patients started using CAM after being diagnosed with cancer. The fact that patients preferred to use CAM more before surgery may suggest that they wanted to receive treatment without undergoing surgery. Although the success rates and improvements in quality of life achieved through surgical interventions have reduced patients' fear of surgery, it has not eliminated it completely. Despite advances, uncertainties surrounding surgical procedures remain a source of concern for individuals due to the possibility of losing body control and becoming dependent on others (Celik & Edipoglu, 2018; Çullu & Ülker, 2020). In addition, it is believed that patients use CAM to reduce postoperative symptoms, prevent relapses, and maintain or improve their current health status.

The study found that the patients who used CAM mostly implemented methods related to body and mind interventions (such as prayer, music therapy) with a rate of 90.6 %, followed by biological-based methods (involving herbal or animal products) with a rate of 87.5 %. The most frequently used body and mind intervention method was found to be prayer. In a study conducted by Yalcin et al (2017), it was found that prayer was the most used CAM treatment in cancer patients

**Table 3. Usage Characteristics of Patients Using CAM (n=160)**

| Variables | n | % |
|---|---|---|
| **Reasons to use CAM methods *** | | |
| Because I have heard from patients with the same illness that it was helpful | 112 | 70.0 |
| As I think medical treatment alone is insufficient | 86 | 53.8 |
| To improve the quality of life by strengthening the immune system | 66 | 41.3 |
| To reduce the side effects of the drugs I use | 61 | 38.1 |
| For relieving my pain | 3 | 1.9 |
| For seeing it as a last resort for my chronic illness | 2 | 1.3 |
| **How did you decide to use CAM? *** | | |
| By myself | 33 | 20.6 |
| At the request of my family | 61 | 38.1 |
| Upon the recommendation of a friend | 88 | 55.0 |
| TV/ Radio/ Newspaper | 20 | 12.5 |
| Internet | 8 | 5.0 |
| **When did you use it?** | | |
| Before surgery | 81 | 50.6 |
| After surgery | 60 | 37.5 |
| Before and after surgery | 19 | 11.9 |
| **Have you consulted with a health professional about the method you use?** | | |
| Yes | 64 | 40.0 |
| No | 96 | 60.0 |
| **Did you continue the recommended medical treatment for your disease while using CAM methods?** | | |
| Yes | 153 | 95.6 |
| No | 7 | 4.4 |
| **Did you find the method you used helpful?** | | |
| Yes | 87 | 54.3 |
| No | 30 | 18.8 |
| I don't know | 43 | 26.9 |
| **Did you experience any side effects with the method you used?** | | |
| Yes | 5 | 3.1 |
| No | 155 | 96.9 |
| **Would you recommend your method to others?** | | |
| Yes | 122 | 76.2 |
| No | 38 | 23.8 |

*More than one option ticked

receiving chemotherapy and radiation therapy (Yalcin, Hurmuz, Mcquinn &Naing, 2017). A study conducted by Abiri et al (2024) found that 14.7% of cancer patients used prayer among complementary and alternative medicine practices. Oncology patients must cope with many vital problems such as anxiety, depression, fear of death, loss of personal control, social isolation, inability to perform daily activities, fatigue, and insomnia (Kökcü & Kutlu, 2020). Patients with spiritual values can benefit from their beliefs in coping with problems such as their illness, illness-related pain, and other stressors (Asadzandi, 2018; Imeni, Sabouhi, Abazari & Iraj, 2018). Additionally, people may accept that both illness and health come from God through the "belief in fate" in Islam. Treating certain illnesses by reciting verses from the Quran is a practice that is consistent with the teachings of Islam and is expressed in the literature as "Rukye". Rukye means prayer for healing and protection from illness (Aydın, 2019). Praying to God, who will give healing, can give them hope and comfort. Additionally, prayer can be practiced by anyone in any environment. In other studies, it has been reported that prayer, herbal supplements, and vitamin-mineral use are commonly used methods (Chui et al., 2018; Güveli̇ et al., 2021; Hill et al., 2022; Luo & Asher, 2017). The high use of herbal products may be due to their affordability, accessibility, and applicability. The increase in the use of vitamin-mineral supplements is thought to be because many products are advertised in the media in recent years. However, these products tend to be expensive and are mostly used unconsciously upon recommendation (Odegard, Ferguson, Naja, Ayoub & Banna, 2022). In the study, it was found that the most used herbal products by patients were pinecone syrup, nettle, and inula viscosa, while the most used animal product was donkey milk. In addition, participants have used biologically-based CAM methods such as "turmeric, thistle, walnut milk, licorice root, centaury oil, pine gum, black sesame, hemp oil, mulberry molasses, walnut milk, reishi mushroom, onion cure, olive leaf tea , thyme tea, fennel tea, onion juice, thistle, wheatgrass, phytotherapy, propolis, hedgehog meat, turtle meat, shark meat, pollen and breast milk". Karakoç (2020) discovered in their study that the most preferred herbal product was black sesame (Nigella sativa L.), and in the study conducted by Rasheed et al. (2020) it was reported that green tea and black sesame were the most used products. İndividuals may tend to prefer products suggested to them by their families and those that are easily accessible in their local region.

The most common reasons for using CAM are "hearing that it has benefitted other patients with the same condition", "thinking that medical treatment alone is insufficient", "strengthening the immune system to improve quality of life", and "reducing the side effects of medications". The reasons for using CAM in studies have also been reported as fighting cancer, strengthening the immune system, increasing energy, improving physical, general, and emotional well-being, and managing symptoms (Hill et al., 2022; Karakoç, 2020; National Cancer Institute, 2023; Savlak et al., 2022; Simpson et al., 2021; Wode et al., 2019). These results suggest that patients using CAM during cancer treatment may not only hope to treat cancer but also aim to reduce complications and symptoms and improve their quality of life. In the study conducted by Schiff et al. (2019) on the use of CAM (acupuncture, reflexology, or guided imagery) in patients undergoing non-oncological surgical interventions, it was stated that the use of CAM reduced nausea, pain, and anxiety in patients. No significant adverse events were reported with any of the CAM ther-

apies in the same study. In other studies where music therapy and aromatherapy were applied, it was reported that the quality of life of oncology patients was positively affected. (Khamis et al. 2023). In the study, it was found that 3.1% of patients who used CAM experienced side effects related to the method, while 54.3 % of patients reported being satisfied with the method they used, and 76.2 % recommended the method to others. CAM usage, which can be found in every society, is also quite common in Turkey, and individuals recommend the methods they use to others. This behavior is quite common and is believed to affect CAM usage preferences. Studies have also reported high patient satisfaction with CAM use (Karakoç, 2020; Rasheed et al., 2020; Wode et al., 2019). Wode et al. (2019) shared that 5.6 % of CAM users experienced side effects related to the method they used. In a study conducted by Karakoç (2020), it was reported that the reported side effects were mild and minimal. Any product can be toxic when not used with an appropriate dosage. Additionally, it can interact with drugs or other products. Therefore, it is always important to have a professional evaluation. In the study, it was determined that 40 % of CAM users consulted with healthcare professionals. Wode et al. (2019) noted that approximately 30 % of patients consulted with healthcare professionals in their study. The reason for the low consultation rates with healthcare professionals may be due to the belief that the method used is not harmful. Moreover, in some cultures, the recommendations of individuals accepted as "healers" are unconditionally accepted (Yilmaz, 2020). On the other hand, the physiological activity of many CAM products can alter the metabolism of some chemotherapeutic agents, and negate their effectiveness. If the effect of the treatment increases, a condition called chemotherapy toxicity may occur. This table can cause myelosuppression that leads to anemia, thrombocytopenia, and neutropenia and can be fatal (Simpson et al., 2021). Therefore, healthcare professionals need to question CAM usage in patients during the treatment phase and inform them about it in order to ensure the effectiveness of the treatment.

### *Limitations*

The literature on CAM use in oncologic surgery patients is limited. The strength of this study is that it provides rich data on the status and methods of CAM use in different oncologic surgery patients. It highlights the importance of CAM practices being supervised by professional providers.

A limitation of the study may be the difficulty participants had in recalling information while answering the questions. The fact that the data were collected from one hospital was also a limitation of the study.

## IMPLICATIONS FOR PRACTICE

It was determined that approximately half of the patients who underwent oncological surgical procedures, mostly lung and breast cancer patients, use CAM applications. It was identified that patients often turn to CAM before the surgery and continue on with it afterwards. Patients were influenced by their experiences and aimed to strengthen their immunity, support treatment, and also protect themselves from side effects when choosing CAM. For this purpose,interventions related to the body and mind (such as prayer, music therapy) and biological-based methods (involving herbal or animal products) were quite common. The most frequently used body and mind intervention method was found to be prayer. In addition, the majority of patients reported that they were satisfied with the method they chose and recommended it to others. On the

other hand, fewer than half of the patients using CAM had consulted a healthcare professional beforehand, and it was found that 3.1% experienced side effects related to the method they implemented.

Healthcare professionals should identify the reasons for patients' use of CAM and direct them to professional and valid methods. It is recommended that clinical research on commonly used CAM practices be increased. In addition, it is very important that CAM practices are supervised and implemented by professional providers. The effects of spiritual practices such as prayer on individuals should be taken into consideration, and spiritual care support can be provided in clinics to patients who request it. It is recommended that individuals undergoing oncological surgery be informed about potential side effects of their treatments and provided with coping strategies. They should also receive continuous care and counseling after discharge. Furthermore, it is recommended to record CAM supplements in patient records and to monitor interactions.

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### *Ethics approval*

The study was approved by the Non-Interventional Clinical Research Ethics Committee of a university to conduct the study (08.03.2021/E-60116787-020-28761).

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