

# Complementary and integrative care practices in symptom management in breast cancer patients

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## Abstract

**Objective:** The aim of this study is to discuss the results of complementary and integrative care practice in symptom management in patients with breast cancer in nursing postgraduate theses conducted in our country.

**Materials and methods:** In the study, among the postgraduate theses conducted in the field of nursing from the website of the National Thesis Center, 74 studies conducted on patients with breast cancer were reached by browsing with “breast” as the key word. A total of 15 postgraduate nursing studies having complementary and integrative care applications, including 5 master’s theses and 10 doctoral theses, were examined. The year, thesis type and department of all the thesis were recorded.

**Results:** It was determined that 5 of the postgraduate nursing these studies related to complementary and integrative care practice were master’s theses and 10 were doctoral theses. Symptoms of the study were determined to be pain, nausea / vomiting, fatigue, lymphedema, anxiety, depression, sleep and alopecia. Complementary and integrative maintenance applications were determined to be relaxation exercise, aromatherapy, lymph drainage massage, reflexology, scalp cooling, acupressure and ginger use. In the studies examined, complementary and integrative care practices were found to be effective in symptom management.

**Conclusion:** Postgraduate nursing thesis studies demonstrate the effectiveness of complementary and integrative care practices in symptom management in patients with breast cancer. The increased involvement of nursing care practices for symptom management will contribute to the development of evidence-based practices in this field.

## Introduction

Among the health problems in the world and in our country, cancer is the second most common cause of death in developed countries after heart diseases [1]. As a result of the developments that take place in medicine, while there is a chance to treat some cancer cases, cancer has acquired a chronic course in others by extension of the length of life [2]. In this process, as much as the symptoms caused by the disease, patients also experience many physical and emotional problems such as pain, anorexia, cachexia, taste changes, alopecia, nausea, vomiting, dehydration, mucositis, xerostomia, fatigue, dyspnea, bone marrow depression, depression, anxiety etc. due to side effects of chemotherapy and radiotherapy [3].

It is known that patients use complementary and integrative care (CIC) practices along with medical treatments to cope with the symptoms of the disease, increase the quality of life and prolong the life span [4,5]. Recent studies indicate that on average 50% of cancer patients use CIC and that the number of patients using these treatments is increasing [6]. The usage of complementary and integrative treatment is higher in North America than in Europe. The usage of CIC in Europe is minimum in Italy and maximum in Denmark and Germany. In general CIC users are reported to be younger and educated and have a higher socioeconomic status [7].

There are many studies about the usage of CIC in our country. In the literature study conducted in our country, it is stated that the frequency of CIC use of cancer patients varies between 22.1% and

84.1% [8]. It is reported that 41% of cancer patients in the east of our country and 42% of them in the west use CIC [9]. In a study conducted by Malak *et al.* [10], it was reported that 87.2% of cancer patients use CIC, and that 23.6% of these patients are breast cancer patients. It is also known that, in patients with breast cancer, unwanted physical and emotional symptoms due to disease process and treatments affect patients’ quality of life negatively [11]. Postgraduate studies are being conducted by nurses to develop evidence-based practices in the management of symptoms. The aim of this study is to discuss the results of complementary and integrative care practice in symptom management in patients with breast cancer in nursing postgraduate thesis studies conducted in our country.

## Materials and methods

In the study, among the postgraduate theses conducted in the field of nursing on the official web page of the National Thesis Center, 74 studies on patients with breast cancer were reached by browsing with the keyword “breast”. It was determined that nursing theses related

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to breast cancer were done between 1998-2016 and the maximum number of studies was in 2008. Of the studies, 45 were determined to be master's theses and 29 were determined to be doctorate theses. The theses were found to be mostly in the departments of surgical nursing, public health nursing and internal medicine nursing. A total of 15 nursing studies having complementary and integrative care practices, including 5 master's theses, were examined from these theses. The year of all theses, the type of thesis, the department, the number of samples, the symptom studied, the complementary and integrative care application and the result of the application were recorded.

## Results

The departments in which nursing thesis studies that use complementary and integrative care practices are used were determined to be internal medicine nursing, surgical diseases nursing, psychiatric nursing and nursing principles respectively (Table 1). The most commonly studied symptoms were determined to be anxiety/depression, quality of life, nausea/vomiting, fatigue, lymphedema respectively. Complementary and integrative care practices were determined to be relaxation exercise, aromatherapy, lymph drainage massage, reflexology, scalp cooling, acupressure and ginger use.

## Discussion

The purposes of cancer treatment are reduction/control of symptoms and a better quality of life for the patient [12]. In a study conducted by Hwang *et al.* [13], the rate of CIC use in patients with breast cancer was 67% while the reasons for use were determined as stopping the progression of the disease (39.4%) and relieving the symptoms (32.1%). As it can be understood from the results of this research, the reasons for using CIC methods of patients and the targets

of medical treatment are the same. When patients do not reach the expected treatment goals, they begin to look for alternative methods. In a study conducted in patients with breast cancer undergoing chemotherapy, it was determined that 87% of the patients were using CIC; these practices were patient-applied practices such as dietary supplements (70%), vitamin and mineral supplements (36%), herbal products (42%), other natural products (41%), mind-body based applications (71%), yoga and meditation (24%) and specialist applications such as massage, acupuncture and reiki [14]. When the high usage rate and the distribution of the methods used is considered; it is seen that patients apply methods that may not be safe (such as herbal products) after deciding on their own. It is believed that health professionals' work on CIC methods' effectiveness is very important. Only as a result of these studies, it will be possible for patients to be informed about the use of safe and effective methods.

Nurses are working on an increasing number of complementary and integrative care practices for symptom management. In the study that they have done, Witt and Cardoso (2016) reviewed the results of studies investigating the effectiveness of complementary and integrative care practices in patients with breast cancer. Symptoms in the studies were determined as nausea/vomiting, pain, fatigue, anxiety, depressive symptoms, sleep disturbance and quality of life. The complementary and integrative care practices used were determined as acupuncture, acupressure, hypnosis, meditation, relaxation, yoga, music therapy, massage and use of ginger. In symptom management; it has been shown that the strongest evidence is in applying yoga, hypnosis, meditation, relaxation [15]. It is seen that the symptoms studied in our country are similar, but there are some differences in complementary and integrative care practices applied. The fact that mind-body based practices with strong evidence are never used in our

**Table 1.** Postgraduate theses with complementary and integrative care practices in symptom management of patients with breast cancer.

Author	Department / Thesis type	Sample	Practices	Symptom	Results
Türk G. 2002	Surgical Nursing Master's	28 patient mastectomy	Arm exercises	Lymphedema	Positive effect
Taş Gül A. 2005	Surgical Nursing Doctorate	2 groups – 64 patient	Aromatik lenf drenajı masajı	Lymphedema	Positive effect
Demiralp M. 2006	Psychiatry Nursing Doctorate	27 patient Self-controlled	Relaxation training	Anxiety, depression, sleep quality, fatigue	Positive effect
Lafçı D. 2009	Fundamentals Nursing Master's	2 groups –60 patient	Music	Sleep quality	Positive effect
Ucuza M. 2009	Surgical Nursing Doctorate	2 groups – 70 patient mastectomy	Foot massage	Pain	Positive effect
Genç F. 2010	Internal Medicine Nursing Doctorate	2 groups – 64 patient	Acupressure	Nausea, vomiting and anxiety	Positive effect
Ovayolu Ö. 2011	Internal Medicine Nursing Doctorate	4 groups - 280 patient chemotherapy	Aromatherapy	Symptoms Quality of life	Positive effect
Arıkan Dönmez A. 2012	Fundamentals Nursing Master's	2 groups – 50 patient chemotherapy	Scalp cooling	Alopesi	Positive effect
Doğan S. 2012	Psychiatry Nursing Doctorate	2 groups – 70 patient	Relaxation exercise	Fatigue, depression, quality of life	Positive effect
Özdelikara A. 2013	Internal Medicine Nursing Doctorate	2 groups – 60 patient chemotherapy	Reflexology	Fatigue, nausea, vomiting	Positive effect
GürdilYılmaz S. 2014	Surgical Nursing Master's	2 groups – 60 patient mastectomy	Progressive relaxing exercises	Anxiety, comfort	Positive effect
Şengün İnan F. 2014	Psychiatry Nursing Doctorate	32 patient Self-controlled	Psychoeducation	Distress, anxiety, depression, quality of life	Positive effect
Arslan M. 2014	Internal Medicine Nursing Doctorate	2 groups – 60 patient chemotherapy	Ginger	Nausea-vomiting, retching	Positive effect
Nemli P.A. 2015	Internal Medicine Nursing Master's	2 groups – 62 patient mastectomy	Exercise	Physical activity, quality of life	Positive effect
Arıkan Dönmez A. 2016	Internal Medicine Nursing Doctorate	2 groups - 52 patient	Physical activity programme and simple lymphatic drainage massage	Lymphedema	Positive effect

country can be explained by the lack of educated practitioners in this respect. Moreover, the fact that it is not culturally applicable and the lack of awareness of these practices by our society can be listed among reasons as to why it is not applied.

Studies have shown that exercise reduces fatigue which is among the most common symptoms in cancer patients and increases quality of life [16]. In a study that they have done, Schmidt *et al.* found that, after giving exercise training and 12 weeks of group training to patients with breast cancer, there was a positive change in the fatigue, quality of life, depression, cognitive capacity, muscle strength and inflammatory parameters of the patients [17]. In her thesis study, Nemli found that regular exercise and follow-up in patients with breast cancer who had undergone mastectomy increased the level of physical activity and quality of life of patients [18]. In two different thesis studies investigating the effect of relaxation exercises in patients with breast cancer receiving chemotherapy, it has been determined that it has a curative effect on sleep quality, fatigue and depression [19,20]. In another thesis study, it has been shown that progressive relaxation exercises have a positive effect on anxiety and comfort levels in patients with breast cancer who had undergone mastectomy [21-25]. In patients with breast cancer, exercise can be said to be an effective complementary and integrative care practice for controlling symptoms such as fatigue and depression.

Chemotherapy-induced nausea/vomiting is considered the most common, unpleasant, and worrying side effect [26]. Chemotherapy-induced nausea/vomiting has been reported in 55-94% of breast cancer patients [27]. In three different thesis studies, acupressure [28] reflexology [29] and ginger use [30] applied in patients with breast cancer have been shown to reduce chemotherapy-induced nausea/vomiting. Control of this symptom, which is commonly encountered during chemotherapy and adversely affects the treatment process of the patient, is thought to be very important.

Lymphedema is one of the most troublesome complications that occur in about 24% of patients after mastectomy. Decongestive lymphatic therapy (DLT) with skin care, manual lymphatic drainage (MLD), exercise and compression therapy (with a multilayer bandage or garment) is widely used and considered the best practice in lymph therapy management [22]. Stone found that aromatic lymph drainage massage and simple lymph drainage massage prevented the development of lymphedema in his thesis study with 64 patients who underwent mastectomy [23]. Türk [24] in her study showed that arm exercises and Arıkan-Dönmez [25] showed that early-phase physical activity and simple lymph drainage massage were effective in preventing lymphedema after breast cancer surgery. It is thought that, in prevention of lymphedema, it is necessary to give information to the nurses that provide care to the patients with mastectomy about arm exercise, early physical activity, and simple lymph drainage massage.

Other symptoms that may occur due to chemotherapy and cancer treatments in patients with breast cancer include pain, sleep disturbance, anorexia, anxiety, depression, constipation/diarrhea, hair loss, etc. [26]. Studies have indicated that reflexology is an effective treatment for the control of side effects of pain, anxiety, depression and chemotherapy in cancer patients [31]. In the thesis study investigating the effect of aromatherapy massage [32] applied to patients with breast cancer receiving chemotherapy treatment, it has been shown to have a positive effect on symptoms and quality of life. In his thesis study, Şengün İnan found that psychoeducation applied to patients with breast cancer reduced distress, anxiety, depression and improved quality of life [33]. Ucuzal reported that foot massage applied after breast surgery reduced

post-operative pain in patients with breast cancer [34]. In the thesis study conducted with patients with breast cancer who are hospitalized, it has been found that music improved sleep quality and increased satisfaction [35]. In the Arıkan Dönmez thesis study, it was found that cooling applied to the scalp reduced the hair loss [36]. It is thought that in patients with breast cancer, more randomized controlled trials are needed in large populations where complementary and integrative care practices can be implemented by nurses.

## Conclusion

Postgraduate nursing thesis studies show that complementary and integrative care practices are effective in symptom management of patients with breast cancer. The increase in randomized controlled trials involving nursing care practices for symptom management will contribute to the development of evidence-based practices in this field. It is also thought that it is important to give information on this subject to the nurses who give care to patients with breast cancer so that the results of the study can be reflected to practice.

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