

Reflexology

Summary

There are relatively few studies on reflexology and breast cancer, although they do indicate that reflexology can be beneficial for both cancer patients in general and breast cancer patients specifically, in reducing the frequency or severity and the impact of side-effects associated with a cancer diagnosis and treatment.

In particular, reflexology is beneficial in reducing anxiety among cancer patients, and had similarly beneficial effects on patient perceptions of pain. A paper published in 2007 (*Oncology Nursing Forum*) which investigated the effects of partner-delivered reflexology found that the treatment resulted “in an immediate decrease in pain intensity and anxiety.” These findings confirmed earlier studies, the results of which were published in 2006 (*Journal of Nursing Management*) and 2000 (*Oncology Nursing Forum*).

Two studies have also found reflexology to reduce the nausea and vomiting associated with chemotherapy. A Korean study published in 2005 found in a controlled trial that among the breast cancer patients who received reflexology treatments there was a statistically significant decrease in nausea, and vomiting compared with the control group. In addition, there was a statistically significant decrease in fatigue. In a study published in 2000 (*Cancer Nursing*) among 87 patients, a ten-minute foot massage was found to have a significant immediate effect on the perceptions of pain and nausea.

Literature Review: Abstracts

Partner-delivered reflexology: effects on cancer pain and anxiety.

Stephenson NL, Swanson M, Dalton J, Keefe FJ, Engelke M.

Oncology Nursing Forum. 2007 Jan;34(1):127-32.

PURPOSE/OBJECTIVES: To compare the effects of partner-delivered foot reflexology and usual care plus attention on patients' perceived pain and anxiety. **DESIGN:** The experimental pretest/post-test design included patient-partner dyads randomly assigned to an experimental or control group. **SETTING:** Four hospitals in the southeastern United States. **SAMPLE:** 42 experimental and 44 control subjects comprised 86 dyads of patients with metastatic cancer and their partners, representing 16 different types of cancer; 23% of patients had lung cancer, followed by breast, colorectal, and head and neck cancer and lymphoma. The subjects had a mean age of 58.3 years, 51% were female, 66% had a high school education or less, and 58% were Caucasian, 40% were African American, and 1% were Filipino. **METHODS:** The intervention included a 15- to 30-minute teaching session on foot reflexology to the partner by a certified reflexologist, an optional 15- to 30-minute foot reflexology session for the partner, and a 30-minute, partner-delivered foot reflexology intervention for the patient. The control group received a 30-minute reading session from their partners. **MAIN RESEARCH VARIABLES:** Pain and anxiety. **FINDINGS:** Following the initial partner-delivered foot reflexology, patients experienced a significant decrease in pain intensity and anxiety. **CONCLUSIONS:** A nurse reflexologist taught partners how to perform reflexology on patients with metastatic cancer pain in the hospital, resulting in an immediate decrease in pain intensity and anxiety; minimal changes were seen in the control group, who received usual care plus attention. **IMPLICATIONS FOR NURSING:**

Hospitals could have qualified professionals offer reflexology as a complementary therapy and teach interested partners the modality.

Use of reflexology foot massage to reduce anxiety in hospitalized cancer patients in chemotherapy treatment: methodology and outcomes.

Quattrin R, Zanini A, Buchini S, Turello D, Annunziata MA, Vidotti C, Colombatti A, Brusaferrò S.
Journal of Nursing Management, 2006 Mar;14(2):96-105.

AIM: To examine the effectiveness of reflexology foot massage in hospitalized cancer patients undergoing second or third chemotherapy cycles. BACKGROUND: Since the late-1970s, studies have been conducted to assess the efficacy of behavioural and relaxation approaches in controlling nausea/vomiting, anxiety and other side-effects associated with chemotherapy. METHODS: The study consisted of 30 patients being admitted to the oncology unit at a Scientific Research Hospital in Italy. Only 15 of the 30 participants received therapeutic massage. The subjects' self-reports of anxiety (measured by the Spielberger State-Trait Anxiety Inventory) were recorded before, after and 24 hours after the intervention. RESULTS: There was an average decrease of 7.9 points on the state-anxiety scale in the treatment group and of 0.8 points in the control group ($P < 0.0001$). CONCLUSIONS: Reflexology foot massage can be considered a support treatment used in combination with traditional medical treatments and executed by an expert, qualified person to help cancer patients receiving chemotherapy feel better and also cope better with their disease.

The effects of foot reflexology on nausea, vomiting and fatigue of breast cancer patients undergoing chemotherapy

[Article in Korean]

Yang JH.

Taehan Kanho Hakhoe Chi. 2005 Feb;35(1):177-85.

PURPOSE: The purpose of this study was to identify the effects of foot reflexology on nausea, vomiting and fatigue in breast cancer patients undergoing chemotherapy. METHOD: The research was a quasi-experimental study using a non-equivalent pre-post design and was conducted from Jan. 26, to Mar. 20, 2004. The subjects consisted of 34 patients with 18 in the experimental group and 16 in control group. A pretest and 2 posttests were conducted to measure nausea, vomiting and fatigue. For the experimental group, foot reflexology, which was consisted of 4 phases for 40 minutes, was given by a researcher and 4 research assistants. The collected data were analyzed by repeated measures ANOVA using the SPSS WIN 10.0 program. RESULTS: There was a statistically significant decrease in nausea, and vomiting in the experimental group compared to the control group over two different times. In addition, there was a statistically significant decrease in fatigue in the experimental group compared to the control group over two different times. CONCLUSION: Foot reflexology was effective on nausea, vomiting and fatigue in breast cancer patients receiving chemotherapy in this study. Therefore, foot reflexology can be usefully utilized as a nursing intervention in the field of cancer nursing for breast cancer patients receiving chemotherapy.

The effect of foot reflexology on pain in patients with metastatic cancer.

Stephenson N, Dalton JA, Carlson J.

Applied nursing research 2003 Nov;16(4):284-6.

Thirty-six oncology inpatients participated in this third pilot study investigating the effects of foot reflexology in which equianalgesic dosing was calculated. Foot reflexology was found to have a positive immediate effect for patients with metastatic cancer who report pain, although there was no

statistically significant effect at 3 hours after intervention or at 24 hours after intervention. Further study is suggested for foot reflexology delivered by family in the homes for management of cancer pain.

Reflexology audit: patient satisfaction, impact on quality of life and availability in Scottish hospices.

Milligan M, Fanning M, Hunter S, Tadjali M, Stevens E.

International Journal of Palliative Nursing. 2002 Oct;8(10):489-96

Complementary therapies are being accessed increasingly by cancer patients. The aims of this audit were to investigate the impact of reflexology on the quality of life of 20 cancer patients, to determine their satisfaction with the service provided and to investigate the availability of this therapy within Scottish hospices. The audit findings suggest that the clients were satisfied with the service received. Respondents noted that their quality of life was improved through a reduction in physical and emotional symptoms. It was found that the provision of reflexology within Scottish hospices varied, with less than half providing this service. The results of this audit suggest that reflexology may be a worthwhile treatment for other cancer patients and requires further research to evaluate the benefits.

Foot massage. A nursing intervention to modify the distressing symptoms of pain and nausea in patients hospitalized with cancer.

Grealish L, Lomasney A, Whiteman B.

Cancer Nurse. 2000 Jun;23(3):237-43.

This article describes the findings of an empirical study on the use of foot massage as a nursing intervention in patients hospitalized with cancer. The study was developed from the earlier work of Ferrell-Torry and Glick (1992). In a sample of 87 subjects, a 10-minute foot massage (5 minutes per foot) was found to have a significant immediate effect on the perceptions of pain, nausea, and relaxation when measured with a visual analog scale. The use of foot massage as a complementary method is recommended as a relatively simple nursing intervention for patients experiencing nausea or pain related to the cancer experience. Further research into its effectiveness in the management of these symptoms by the family at home is warranted.

Does reflexology impact on cancer patients' quality of life?

Hodgson H.

Nursing Standard, 2000 Apr 19-25;14(31):33-8

AIM: The objective of this study was to determine whether reflexology has an impact on the quality of life of patients in the palliative stage of cancer. METHOD: Twelve patients in the palliative stage of cancer with various tumour types were randomised into two groups. They were randomly assigned to receive either reflexology or placebo reflexology. All participants completed a linear analogue self-assessment scale relating to quality of life. All participants then received three sessions of either reflexology or placebo reflexology. The same person, a qualified reflexologist, provided the interventions for both groups. The participants were not aware of which intervention they were receiving. All participants then completed a second linear analogue self-assessment scale relating to quality of life. RESULTS: All participants felt that their quality of life had improved, even those who had received the placebo treatment. The reflexology group, however, reported more benefit than the placebo group. There was a significant difference ($p = 0.004$) between the reflexology group and the placebo group. CONCLUSION: This study showed that reflexology does have an impact on the quality of life of patients in the palliative stage of cancer.

The effects of foot reflexology on anxiety and pain in patients with breast and lung cancer.

Stephenson NL, Weinrich SP, Tavakoli AS.

Oncology Nursing Forum. 2000 Jan-Feb;27(1):67-72

PURPOSE/OBJECTIVES: To test the effects of foot reflexology on anxiety and pain in patients with breast and lung cancer. **DESIGN:** Quasi-experimental, pre/post, crossover. **SETTING:** A medical/oncology unit in a 314-bed hospital in the southeastern United States. **SAMPLE:** Twenty-three inpatients with breast or lung cancer. The majority of the sample were female, Caucasian, and 65 years or older; had 12 or fewer years of education and an annual income of \$20,000 or more; and were receiving regularly scheduled opioids and adjuvant medications on the control and intervention day. **METHODS:** Procedures included an intervention condition (foot reflexology to both feet for 30 minutes total by a certified reflexologist) and a control condition for each patient (with at least a two-day break). No changes were made in patients' regular schedule or medications. **MAIN RESEARCH VARIABLES:** Anxiety and pain. **FINDINGS:** Following the foot reflexology intervention, patients with breast and lung cancer experienced a significant decrease in anxiety. One of three pain measures showed that patients with breast cancer experienced a significant decrease in pain. **CONCLUSIONS:** The significant decrease in anxiety observed in this sample of patients with breast and lung cancer following foot reflexology suggests that this may be a self-care approach to decrease anxiety in this patient population. **IMPLICATIONS FOR NURSING PRACTICE:** Professionals and lay people can be taught reflexology. Foot reflexology is an avenue for human touch, can be performed anywhere, requires no special equipment, is noninvasive, and does not interfere with patients' privacy.
