

# Foot Reflexology

## An intervention for pain and nausea among inpatients with cancer

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**BACKGROUND:** Pain and nausea affect a significant number of patients with cancer. Applying foot reflexology to this population has had some positive effects, but more studies are needed to confirm its efficacy.

**OBJECTIVES:** The purpose of this study was to conduct a randomized controlled trial to evaluate the effects of foot reflexology on pain and nausea among inpatients with cancer as compared to traditional nursing care alone.

**METHODS:** A pilot study was conducted with adult patients with cancer hospitalized on a 24-bed inpatient oncology unit. Using convenience sampling, 40 patients provided consent and were randomized into either the intervention or control group. Each group had a treatment session of 20–25 minutes in which pre- and postsession surveys were completed, with reflexology performed in the intervention group only.

**FINDINGS:** Results show that foot reflexology significantly decreases pain for inpatients with cancer as compared to traditional nursing care alone. Although the effects on nausea are not statistically significant, they may be clinically relevant; the mean changes in pre- and postsession nausea ratings indicate at least some decreased nausea among patients in the intervention group.

### KEYWORDS

reflexology; integrative therapies; nausea; pain; symptom management; side effects

### DIGITAL OBJECT IDENTIFIER

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**HOSPITALIZED PATIENTS WITH CANCER EXPERIENCE DEBILITATING SIDE EFFECTS** from the treatment they are receiving for their disease and from the cancer itself. Unintended side effects of cancer treatment include nausea, vomiting, and fatigue (Özdelikara & Tan, 2017). Traditionally, options for addressing side effects have included a variety of medications. Patients with cancer may experience specific types of pain, including spasms, mucositis, bone pain, neuropathy, joint pain, and dermatitis (National Cancer Institute, 2021). However, nausea is another frequent symptom among patients with cancer, with chemotherapy-induced nausea and vomiting impairing emotional, cognitive, and social functioning. Chemotherapy-induced nausea and vomiting can lead to a decline in a patient's quality of life; nausea affects 40%–70% of patients during the course of their disease (Moradian & Howell, 2015; Özdelikara & Tan, 2017).

Integrative therapies have been shown to significantly decrease treatment-related cancer pain and associated anxiety in patients with cancer (Lee et al., 2015; Robison & Smith, 2016). For example, patients with breast cancer frequently use integrative therapies to relieve cancer-related symptoms in conjunction with conventional cancer care. Patients with cancer may use different integrative therapies (e.g., meditation, music, yoga, acupressure, acupuncture) to enhance wellness, quality of life, and symptom relief (Greenlee et al., 2017).

Reflexology, a less-studied integrative therapy, uses manual techniques to the feet or hands; manipulation corresponds to specific areas of the feet and stimulates neural pathways while supporting optional functioning of the body as a whole (Ball, 2016). There are two main types of reflexology: the Ingham method and the Rwo Shur method. Although the Ingham method uses only the hands for manipulation, the Rwo Shur method also uses tools (Embond et al., 2015).

### Background

The American Reflexology Certification Board describes the difference between massage and reflexology as the intent of massage being a manipulation of the tissues used to relax muscles, whereas reflexology uses various techniques to support the overall health of the body's systems to function optimally (Ball, 2016). Robison and Smith (2016) found that patients with cancer receiving chemotherapy or biotherapy had decreased pain, fatigue, nausea, and anxiety following massage treatment on their hands and/or feet, supporting the effectiveness of massage. However, in a meta-analysis by Lee et al. (2015), reflexology on the feet appeared to be more effective than traditional massage for cancer pain.