

# Efficacy of Inhaled Essential Oil Use on Selected Symptoms Affecting Quality of Life in Patients With Cancer Receiving Infusion Therapies

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**OBJECTIVES:** To evaluate the effects of inhaled ginger, German chamomile, and bergamot essential oil (EO) versus an odorless control oil on appetite, anxiety, fatigue, and nausea in individuals with cancer receiving IV therapy.

**SAMPLE & SETTING:** 248 adults with gastrointestinal, neuroendocrine, or skin cancer receiving IV therapy from an academic cancer center.

**METHODS & VARIABLES:** Participants were randomized to EO or control oil groups. Participants rated their symptoms during a seven-day period using a Likert-type scale ranging from 0 (no symptoms) to 10 (worst symptoms ever).

**RESULTS:** Symptom burden was low. More men than women completed the study. The majority of participants had gastrointestinal cancer, followed by skin and neuroendocrine cancer. Ginger EO produced statistically significant results for anxiety and fatigue.

**IMPLICATIONS FOR NURSING:** Most participants were men and had gastrointestinal cancer. The high number of zero scores for symptoms may indicate the success of current symptom management regimens. Improvements in anxiety and fatigue using ginger EO warrant further study for validation.

**KEYWORDS** cancer; aromatherapy; essential oil; fatigue; nausea; anxiety

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Cancer treatment can cause distressing symptoms, including decreased appetite, anxiety, fatigue, and nausea. In many patients, these symptoms adversely affect quality of life (QOL) and contribute to decreased adherence to treatment regimens. Infusion therapies, such as chemotherapy and biologic agents, are administered on a dosing schedule to optimize their anticancer effect. Managing symptoms ensures patient adherence to the dosing schedule. Pharmacologic management of symptoms can potentially lead to additional side effects such as sedation, constipation, and nausea. Going to the infusion clinic may even cause anticipatory symptoms for some patients.

Complementary therapies have become more popular and are requested by patients who seek nonpharmacologic interventions to improve their QOL (Robison & Smith, 2016). Aromatherapy may be a low-risk treatment that oncology nurses can introduce to patients with cancer for self-management of symptoms. Further exploration is warranted into the effects of inhaled essential oil (EO) on symptom relief for patients undergoing infusion therapies for gastrointestinal, neuroendocrine, and skin cancers.

## Background and Significance

Many studies that have evaluated the use of inhaled EO in patients with cancer focus on breast cancer, and fewer studies have examined the use of EO in patients with gastrointestinal, neuroendocrine, and skin cancers. Of the digestive organs involved in gastrointestinal cancer, colon and rectal cancer have the highest incidence (National Cancer Institute, 2021). The incidence of neuroendocrine tumors was