

Therapeutic Massage During Chemotherapy and/or Biotherapy Infusions:

Patient Perceptions of Pain, Fatigue, Nausea, Anxiety, and Satisfaction

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Background: Patients with cancer commonly experience disease or treatment side effects, including pain, fatigue, nausea, and anxiety. An expanding body of literature supports the use of therapeutic massage (TM) as an adjunct to conventional therapies to manage these side effects.

Objectives: This article describes patients' perceptions of pain, fatigue, nausea, and anxiety and their overall satisfaction with TM provided concurrently with chemotherapy and/or biotherapy.

Methods: In an academic outpatient comprehensive cancer center, consenting patients were asked to identify massage site preference (hands and/or feet). The licensed massage therapist delivered TM for 20 minutes to patients concurrently receiving chemotherapy and/or biotherapy. Patients rated their pain, fatigue, nausea, and anxiety pre- and post-TM using a Likert-type scale. Qualitative and quantitative data related to patients' perceived value of TM were obtained postintervention.

Findings: Participants (N = 58) reported a statistically significant reduction in each of the following variables: pain, fatigue, nausea, and anxiety. Results demonstrated a high level of satisfaction with the TM received as part of their care. TM could be an effective strategy for nurses to use in holistic management of patients with cancer receiving chemotherapy and/or biotherapy, and it could help to minimize side effects related to disease and treatment.

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Patients with cancer commonly receive a variety of treatments, including chemotherapy and biotherapy drugs administered as single or multiple agents. Chemotherapy drugs frequently cause side effects, such as fatigue and nausea (Polovich, Olsen, & LeFebvre, 2014). Chemotherapy is a systemic therapy used to stop or slow the growth of rapidly dividing cancer cells (Polovich, Whitford, & Olsen, 2009). Side effects of chemotherapy include neutropenia, anemia, fatigue, thrombocytopenia, nausea and vomiting, alopecia, and reproductive dysfunction (Polovich et al., 2014).

Biotherapy is another type of systemic therapy used in treating certain cancers (Polovich et al., 2014). Using substances from living organisms to treat disease or attack specific cancer cells, biotherapy can "stimulate or suppress the immune system to help the body fight cancer, infection, and other diseases"

(National Cancer Institute [NCI], n.d., para. 1). Biotherapy can cause side effects and toxicities that are different than those caused by chemotherapy, and they include fever, chills, rigors, malaise, and capillary leak syndrome (Polovich et al., 2014). Managing side effects caused by systemic therapies is an important nursing intervention to help improve quality of life (King & Hinds, 2012).

Complementary treatments, such as therapeutic massage (TM), are safe, noninvasive methods that hold promise for decreasing adverse side effects from cancer treatment (Cassileth & Keefe, 2010). The National Center for Complementary and Integrative Health (NCCIH) generally employs the term *complementary health approaches* when discussing natural products and mind-body practices used for various health conditions. The use of complementary and alternative medicine