

Using Massage Therapy to Address Side Effects in Pediatric Oncology Patients

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PICOT Question

In pediatric oncology patients (P), how does massage therapy (I) alleviate treatment side effects (O) compared to those who did not receive therapy (C)?

Background

Cancer treatments like chemotherapy, radiation, and surgery have devastating side effects on the body, physically and emotionally. Pediatric oncology patients experience troubling side effects and discomforts from these treatments, including pain, fatigue, disturbed sleep, stress, and anxiety. Massage therapy (MT) is an effective non-pharmacological intervention that patients can utilize to alleviate their symptoms. MT allows for relaxing of the muscles, which aids in soothing pain and discomfort caused by curative procedures.

Literature Search

1. Databases used
 - a. MEDLINE (EBSCOhost)
 - b. MEDLINE (PubMed)
 - c. CINAHL
2. Key search terms used and # of articles per terms
 - a. "massage therapy", "oncology", "pediatric" "cancer"
 - b. Resulted in 20 articles exact
3. Inclusion criteria
 - a. Published between January 2016- September 2021
 - b. Patients must be younger than 18 years old
 - c. Articles must be peer reviewed
4. Number of studies excluded
 - a. Published prior January of 2016 (n= 11)
 - b. Not peer reviewed sources (n= 2)

Synthesis of Findings

- Massage therapy is a type of integrative medicine (IM) that is an acceptable intervention for children with cancer in palliative care and their families.^{2,9}
- The effects of therapeutic massage in children with cancer receiving chemotherapy and other treatments show a decrease in pain intensity and severity.^{1,2, 5-8}
- Clinical massage therapy (CMT) has a high rate of acceptance for symptom management among cancer patients. There are different styles of CMT, such as, Chinese massage, Swedish massage, deep tissue massage, etc. All of which involve manipulating muscles and rubbing or stroking soft tissues of the body.^{5, 7, 8}
- Massage therapy is associated with reduced levels of anxiety and fatigue and improved sleep patterns in cancer patients who received treatments.^{1, 3, 4,5}
- Studies that utilized questionnaires and self-reports showed effectiveness and feasibility of massage therapy in both adult and pediatric cancer survivor populations.^{6, 7, 8}

Decision to Change Practice

Problem: Pediatric oncology patients face decreased quality of life due to the chronic nature of their disease, and may develop secondary symptoms from cancer treatment such chemotherapy. Patients often present with chronic pain, cancer-related fatigue, decreased sleep quality, anxiety and behavioral changes during the process of treatment and recovery.^{1, 3-6,8}

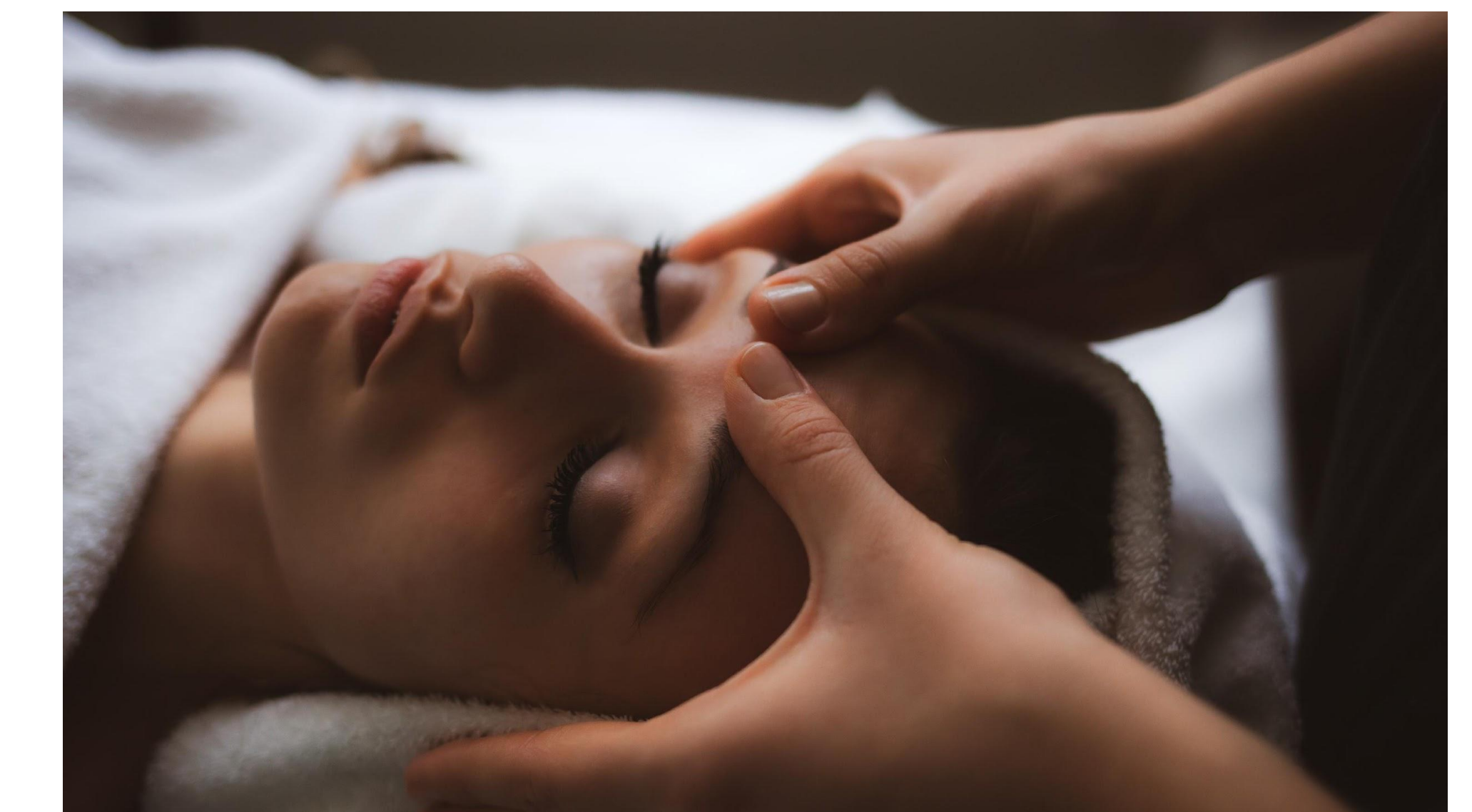
Changes:

- Discuss the use of clinical massage therapy with the patient and their parent(s)/guardian(s) about enrolling in in-hospital CMT and educate on potential benefits from palliative care.^{1, 5, 7, 8}
- Formulate an integrative therapy questionnaire that combines the Child and Adolescent Fatigue Scales, the Child and Adolescent State Trait Anxiety Scale, BASES (Behavioral, Affective, Somatic and Experiences Scale Revised), Children's and Adolescent's Fear Scale, and FACES Pain Scale tools to obtain baseline patient data and to evaluate the effectiveness of each CMT session.^{2, 4, 6}
- Include parent(s)/guardian(s) in the process of treatment by encouraging them to write in a sleep diary regarding the quality of sleep the patient is getting during treatment.⁴ Additionally, hand them a parental/guardian version of the integrative therapy questionnaire to evaluate subjective changes in the patient during the treatment process.^{2, 4, 6}
- Promote incentivization for nurses working in pediatric and/or oncologic floors/hospitals to become trained in clinical massage therapy as part of obtaining continuous education credits; this helps to provide immediate care and reduce the need for referral to massage therapist and/or physical therapists.^{1, 3, 6-8}
- Collaborate with case management, social workers, and child life specialists to refer to outpatient massage therapy and assess for financial ability to afford continuous treatment for managing chronic symptomatology.⁹

Evaluation

In a 3-6 month period we want to evaluate for:

- An increase of patient enrollment in inpatient CMT and outpatient massage therapy programs.
- A consistent decline in patients' reported pain level, anxiety, depression, fear, fatigue, and sleep disturbances using the integrative therapy questionnaires and the sleep diary data.
- An increase in the rates of pediatric/oncology nurses obtaining CMT certifications.



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