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## The Arts in Psychotherapy



# Immediate effects of single-session music therapy on affective state in patients on a post-surgical oncology unit: A randomized effectiveness study



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#### A R T I C L E I N F O

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#### ABSTRACT

After initial diagnosis, surgery is often the first component of cancer treatment. Engaging post-operative inpatients in music therapy may distract them from negative symptoms and immediately elevate affective states. The purpose of this randomized effectiveness study was to determine the immediate effects of a single music therapy session on affective states in patients on a post-surgical oncology unit. The researchers investigated the following research question: What are the effects of 20 to 30-min of patient preferred live music and therapeutic interaction on the mood of patients on a surgical oncology unit? Participants (N=22) were randomly assigned to experimental or control conditions in a single-session wait-list control design. As autonomy has been linked with coping and hospitalized patients tend to prefer receptive music therapy over active music therapy especially during initial sessions, participants were able to choose live music based on their preferences. Affective states were measured at pre- and posttest using the quick mood scale. Results indicated no between-group differences at pretest. There were significant posttest between-group differences in relaxation/anxiety with experimental participants having more favorable posttest scores than control participants. From the results of this randomized controlled effectiveness study, it seems that a single music therapy session can be an effective psychosocial intervention to immediately affect relaxation and anxiety for patients on a post-surgical oncology unit. Limitations of the study, suggestions for future research, and implications for clinical practice are provided.

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#### Introduction

Music therapy can be an effective treatment for patients with cancer as it may improve quality of life and mood and decrease anxiety (Bradt, Dileo, Grocke, & Magill, 2011). Although researchers have studied the effects of music therapy on pain and relaxation, there is a need for additional research concerning affective states and fatigue in cancer patients (Bradt et al., 2011). Surgery is a common early treatment physicians utilize in an attempt to initially remove as much of the cancer possible (American Cancer Society, 2011). Researchers have found music therapy to have positive effects on patients recovering from other surgeries while hospitalized (Cassileth, Vickers, & Magill, 2003; Ghetti, 2011; Madson & Silverman, 2010; Walworth, Rumana, Nguyen, & Jarred, 2008). Although Chaput-McGovern and Silverman (2012) found patients on a post-surgical oncology unit benefited from music therapy,

there were a number of methodological limitations in their study. Thus, the purpose of the current effectiveness study was to evaluate the effects of a single music therapy session on affective states in patients on a surgical oncology unit utilizing a randomized design and an established psychometric instrument.

#### Literature review

The American Cancer Society (2013a) estimated there will be over 1660,000 new cancer diagnoses in 2015. In the United States, cancer is the second leading cause of death and is responsible for one in four deaths. Cancer treatment is also incredibly expensive as the National Institute of Health estimated the cost of cancer was 201.5 billion dollars in 2008. Seventy-seven percent of cancer cases occur in adults aged 55 and older (American Cancer Society, 2013b). Due to the high costs associated with cancer, the millions of people already affected by the disease, and an aging population wherein more people are likely to be diagnosed with cancer, researchers have attempted to find ways to improve care, treatment, and prognosis for cancer patients.

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Although treatment varies according to specific diagnosis and patient circumstances, the three most common forms of treatment are surgery, radiation, and chemotherapy (American Cancer Society, 2013b). Surgery is often the first treatment option to remove as much of the cancerous tumor as possible from the body. Side effects of surgery may include pain, anxiety, fatigue, and risk of infection (American Cancer Society, 2011). After surgery, chemotherapy or radiation may be used in an attempt to eradicate any remaining cancerous cells.

In a study of 243 patients with various cancers, 73.7% of patients indicated lack of energy as a prevalent symptom of their cancer (Portenoy et al., 1994). Additionally, researchers found 75% of cancer patients with a solid tumor had significantly higher levels of reported fatigue compared to a matched control group (Ahlberg, Ekman, Gaston-Johansson, & Mock, 2003). Mock et al. (2000) described cancer-related fatigue (CRF) as a distressing and persistent feeling of tiredness related to cancer or its treatments that can interfere with normal activities. Symptoms related to CRF may include pain, emotional distress, and sleep disturbance. Mitchell, Beck, Hood, Moore, and Tanner (2007) reviewed research relating to CRF and rated the evidence for recommended treatments. They found that exercise was the only intervention supported by extensive research. However, exercise may be difficult and exhausting because patients often have limited mobility and motor restrictions after surgery. Utilizing the Profile of Mood States (POMS), Greenwald (1992) found that markers of low confusion, high vigor, and low fatigue were associated with long-term survival. If treatments or therapies are able to decrease levels of confusion and promote high vigor and low fatigue, cancer patients may have energy allowing them to exercise that may result in a longer and higher quality of life.

Mitchell et al. (2007) noted that music may be effective for decreasing fatigue levels because it can function as a pleasant distraction. In a review of 18 recorded music interventions facilitated by nurses on postoperative pain, Engwall and Duppils (2009) found music to be a valid treatment to achieve psychological and physiological improvements in postoperative pain. Although a music therapist did not facilitate the music in these studies, the recorded music was beneficial to patients' recovery. While music may be effective, qualified clinicians can utilize music therapy in a variety of surgical settings, including brain surgery and organ transplants (Cassileth et al., 2003; Madson & Silverman, 2010; Walworth et al., 2008).

Researchers have found hospitalized patients often prefer receptive music therapy interventions such as patient preferred live music (PPLM) compared to active interventions including music making (Chaput-McGovern & Silverman, 2012; Crawford, Hogan, & Silverman, 2013). Crawford et al. (2013) offered patients the choice of PPLM or a harmonica lesson followed by a blues performance with the researcher accompanying on guitar. Only one participant of the 38 selected the harmonica lesson. Chaput-McGovern and Silverman offered patients the choice of patient preferred live music or a guided relaxation with recorded music intervention. Only one participant out of the eighteen chose guided relaxation with recorded music, indicating patients on a surgical oncology unit preferred patient preferred live music. Moreover, Standley (2000) conducted a meta-analysis and found patient preferred live music increased effectiveness concerning quality of life and was more effective than prerecorded music. Thus, PPLM as a receptive music therapy intervention can be a preferred and effective intervention adults in medical settings.

Walworth et al. (2008) investigated the effects of music therapy on patients undergoing surgical brain procedures using a visual analog scale. Participants received 20 to 30-min of live preferred music from a music therapist prior to surgery and one session daily during their recoveries. There was a significant between-group difference in measures of anxiety, perception of hospital stay, relaxation, and stress with experimental participants having more favorable ratings. However, there was no significant difference in mood and future research concerning the effects of music therapy on affective states is warranted.

Cassileth et al. (2003) investigated the effect of a single music therapy session on mood of patients undergoing an autologous stem cell transplant for a hematologic malignance. According to POMS scores, the researchers found that music therapy immediately improved mood in patients and that the positive effects lasted at least two weeks. The researchers also found live music was more effective in reducing anxiety than prerecorded music. Madson and Silverman (2010) studied the effects of 15 to 35-min of patient preferred live music and therapeutic social interaction with 58 solid organ transplant patients. Using a pretest-posttest design with four Likert-type scales, the researchers found significant decreases in anxiety, nausea, and pain and an increase in relaxation. Expanding on the research of Madson and Silverman (2010), Ghetti (2011) researched the effects of active music engagement (AME) and emotional-approach coping on postoperative kidney and liver transplant patients using psychometric scales and randomization. The researcher encouraged participants to play percussive instruments while listening to preferred music. Ghetti used the Positive and Negative Affect Schedule, a Numeric Pain Rating Scale, and the Coping Self-Efficacy Visual Analog Scale to study the effects of a single music therapy session. Ghetti found music therapy can increase positive affect, decrease negative affect, and reduce pain levels in postoperative transplant patients.

Mahon and Mahon (2011) described music therapy to be a beneficial complementary care for cancer patients. Music therapy may decrease patient stress and anxiety, relieve pain, provide distraction, and promote communication. O'Callaghan and McDermott (2004) evaluated the relevance of music therapy in a cancer hospital setting. One hundred and twenty-eight cancer patients received live music therapy sessions consisting of relaxation and music listening with opportunities for reminiscence and storytelling. Music therapy was considered relevant to the cancer treatment process because it "affirmed and heightened many people's sense of aliveness within a context providing constant evidence of life's fragility" (p. 178). The music therapy session provided patients an opportunity to reflect and relax in a safe and comfortable setting. In a Cochrane review of music therapy with cancer patients, Bradt et al. (2011) found music therapy to be beneficial in improving quality of life, decreasing anxiety, and improving mood. However, the authors recommended that future researchers should investigate the effects of music therapy on fatigue as there was a lack of evidence concerning this consequential dependent measure.

In a survey concerning cancer patients' interest in receiving music therapy while undergoing chemotherapy treatment, 85% of respondents who agreed to receive music therapy preferred music listening (Burns, Sledge, Fuller, Daggy, & Monahan, 2005). Of those approached for consent, 68% agreed to participate. Of those who did not agree to participate, 42.5% were overwhelmed by treatments and 50% were uninterested. More cancer patients were interested in receiving music therapy than not receiving music therapy. In addition to studying the cancer patients' interests, the participants also completed the Assessment of Chronic Illness Therapy-Fatigue scale. The researchers did not find a change in levels of fatigue and suggested this may have been due to participants being in the early stages of cancer treatment and that patients had likely not experienced CRF yet.

In a randomized controlled study using The Bonny Method of Guided Imagery and Music (BMGIM), Burns (2001) utilized the POMS to evaluate mood in cancer patients. Using BMGIM with recorded music, each music therapy session lasted one and a half to 2 h. Participants received 15-min of relaxation and imagery Download English Version:

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