

Music Therapy for Pain Relief in Cancer: An Overview

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Abstract

This short communication was directed to provide an evidence-informed overview on the role of music therapy in cancer pain, through a literature update. There were one systematic review, five original studies on a total 321 patients, and one case report found, all of which reported low to moderate beneficial effect of music therapy. Music therapy offered a feasible and a viable adjunctive treatment option for reducing procedural and post-procedural pain in a range of cancer types, across a range of therapy settings. Although existing evidence is insufficient, definitive directional effect was demonstrated for music therapy in its effects not only on pain, but also on anxiety, depression, and quality of life in people with cancer pain.

Keywords: Music therapy; Alternative medicine; Palliative oncology; Cancer anesthesiology.

This short communication was directed to provide an evidence-informed overview on the role of music therapy in cancer pain, through a literature update. Beck conducted an experimental crossover study to evaluate the therapeutic use of music for decreasing pain in 15 outpatients with cancer who were receiving scheduled analgesics. The subjects were assigned randomly to listen to their preference of seven types of relaxing music or a control (a 60-cycle hum) twice daily for three

days. The effect of the music on pain varied by individual; 75% had at least some response and 47% had a moderate or great response.[1]

Huang *et al* examined the effects of sedative music on 126 hospitalized persons with cancer pain who were randomly assigned to an experimental (n=62) or a control group (n=64), with computerized minimization. The experimental group included choice-based Music- folk songs, Buddhist hymns (Taiwanese music), plus harp, and piano (American), given for 30 min; the control group rested in bed. Thirty minutes of music provided 50% relief in 42% of the music group compared to 8% of the controls.[2]

Igawa-Silva *et al* undertook a comprehensive systematic review on music for cancer pain and concluded; "As an adjunctive form of pain management, music therapy has been shown to address some of these hardships by providing patients with an alternative effective means by which to reduce their subjective experiences of pain. Studies investigating the efficacy of music therapy during invasive cancer procedures and chemotherapy demonstrated the role that attention states play in distracting patients from, and therefore minimizing their

experience of, the pain associated with such treatments. Music therapy has nonetheless been shown to significantly reduce anxiety and, in so doing, indirectly lessen the intensity of pain while improving patient quality of life.”[3]

Kwekkeboom investigated the effects of a music intervention compared to simple distraction at controlling procedural pain and anxiety in 60 people with cancer undergoing noxious medical procedures such as tissue biopsy or port placement or removal. The equivocal effects of music, distraction, and treatment as usual were found which was influenced by individual preferences for use of distraction during painful or anxiety-provoking procedures.[4]

Li *et al* explored the effects of music therapy on pain relief in 120 patients with breast cancer after radical mastectomy, who were randomly allocated to two groups, an intervention group and a control group (60 patients in each group). “The intervention group accepted music therapy from the first day after radical mastectomy to the third admission to hospital for chemotherapy in addition to the routine nursing care, while the control group received only routine nursing care.” Music therapy was found to reduce the Pain rating index (PRI)-total score in the intervention group thus having both short- and long-term positive effects on alleviating pain in breast cancer patients following radical mastectomy.[5]

Magill presented case examples to demonstrate the “lifting”, “transporting”, and “bringing of peace” qualities of music that offer patients moments of release, reflection, and renewal. The author opined, “Music therapy is a treatment modality of great diversity that can offer a range of benefits to patients with advanced cancer pain and symptoms of suffering. Music therapists perform comprehensive assessments that include reviews of social, cultural, and medical history; current medical status; and the ways in which emotions are affecting the pain. A variety of

music therapy techniques may be used, including vocal techniques, listening, and instrumental techniques. These techniques provide opportunities for exploration of the feelings and issues compounding the pain experience.”[6]

Nguyen *et al* evaluated the effects of music medicine on pain and anxiety in 40 children undergoing lumbar punctures who were randomly assigned to a music group (n = 20) or control group (n = 20). “The study found lower pain scores and heart and respiratory rates in the music group during and after the lumbar puncture. The anxiety scores were lower in the music group both before and after the procedure. The findings from the interviews confirmed the quantity results through descriptions of a positive experience by the children, including less pain and fear.”[7]

There were one systematic review, five original studies on a total 321 patients, and one case report found, all of which reported low to moderate beneficial effect of music therapy. Music therapy offered a feasible and a viable adjunctive treatment option for reducing procedural and post-procedural pain in a range of cancer types, across a range of therapy settings. Although existing evidence is insufficient, definitive directional effect was demonstrated for music therapy in its effects not only on pain, but also on anxiety, depression, and quality of life in people with cancer pain.

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