

# The Effects of Music Intervention on Quality of Life, Anxiety, and Fatigue Among Patients With Breast Cancer: A Randomized Controlled Trial

Ching-Hui Chuang, RN, PhD, and Chung-Hey Chen, RN, PhD

**OBJECTIVES:** To determine the effects of music intervention on quality of life, anxiety, and fatigue among patients with breast cancer.

**SAMPLE & SETTING:** 170 individuals from the general surgery unit of Kaohsiung Chang Gung Memorial Hospital in Taiwan.

**METHODS & VARIABLES:** Individuals who had received a mastectomy were randomly assigned to a treatment group or control group. In the treatment group, participants received music intervention for an hour each week, totaling 12 hours during 12 consecutive weeks. The primary variable was quality of life, and secondary variables were anxiety and fatigue.

**RESULTS:** Greater quality of life was seen in the treatment group at 12 weeks. In the treatment group, participants showed significant improvement in State-Trait Anxiety Inventory (trait), which was most significant at eight weeks. No statistically significant difference was observed in fatigue levels after 4, 8, and 12 weeks of music intervention.

**IMPLICATIONS FOR NURSING:** Music intervention may improve anxiety and quality of life of patients with breast cancer. Music intervention could be established following mastectomy and continued throughout recovery.

---

**KEYWORDS** quality of life; anxiety; fatigue; breast cancer; mastectomy; music intervention

**ONF, 51(5), 467–482.**

**DOI** 10.1188/24.ONF.467-482

**B**reast cancer is the most commonly diagnosed cancer in women (Co et al., 2022) and affects 1.38 million people worldwide (12.5%) per year (Wu et al., 2022). In addition, the worldwide annual total of breast cancer cases increased each year between 2012 and 2019 (Siegel et al., 2023). With an average of 685,000 deaths and about 2.3 million new occurrences of breast cancer per year worldwide (Arnold et al., 2022), breast cancer is a common disease and the second highest cause of cancer deaths worldwide (Giaquinto et al., 2022).

Numerous studies have explored the impact of music intervention on pain management in individuals with breast cancer. However, the results regarding improvements in quality of life, anxiety, and fatigue among these patients remain inconsistent. Therefore, the current study investigated the effects of music intervention on quality of life, anxiety, and fatigue in patients with breast cancer.

## Quality of Life

Breast cancer events can significantly affect a person's quality of life (Ulrich et al., 2022). Patients often experience a decline in quality of life during the breast cancer period (Hanson et al., 2022). If not properly managed, breast cancer can result in prolonged hospital stays and reduced quality of life (Smail et al., 2022).

A study by Lima et al. (2020) indicated that being diagnosed with cancer can decrease quality of life and affect a patient's mental health; therefore, a goal of therapy for breast cancer is to maintain quality of life (Heidary et al., 2023). Another study found lower quality of life in postmastectomy patients with breast cancer (Silverstein et al., 2023). The study indicated