

4-19-2023

## The Effects of Music Therapy on Physical and Psychological Symptoms Among Patients Undergoing Chemotherapy

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<https://doi.org/10.33015/dominican.edu/2023.NURS.RP.11>

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### Recommended Citation

Saldana, Guadalupe, "The Effects of Music Therapy on Physical and Psychological Symptoms Among Patients Undergoing Chemotherapy" (2023). *Nursing | Student Research Posters*. 26. <https://doi.org/10.33015/dominican.edu/2023.NURS.RP.11>

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## BACKGROUND

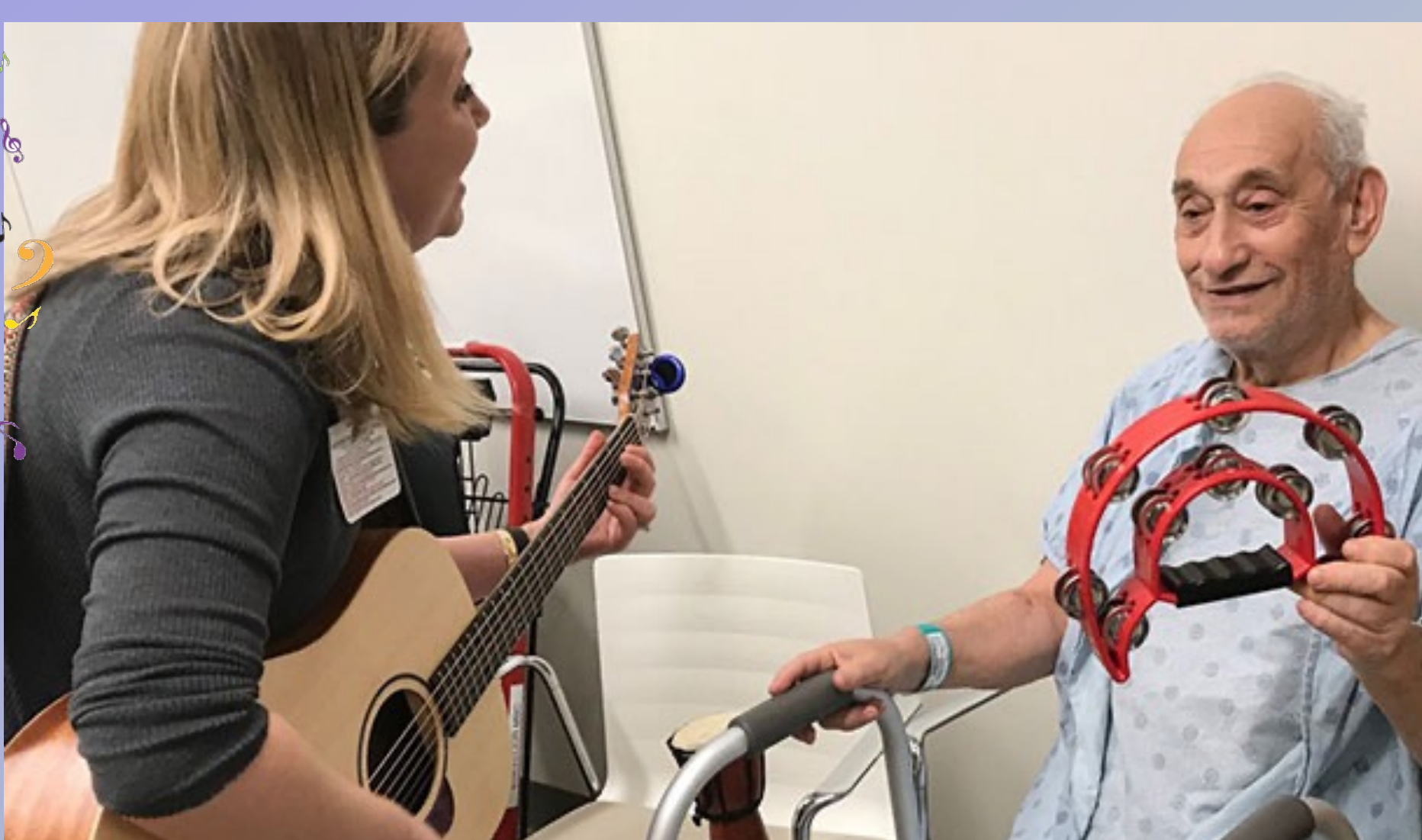
- Patients undergoing chemotherapy experience undesirable physical and psychological effects in which medications are the preferred method of management. However, standard medications are often insufficient for patients.
- About 60%-70% of patients receiving chemotherapy are at risk for chemotherapy induced physiological and psychological symptoms (Tang, 2021).
- The importance of managing chemotherapy symptoms creates an urgent need to implement an approach that is noninvasive, non-pharmacological, and one that still meets the physical and psychological needs of patients receiving chemotherapy.

## RESEARCH QUESTION

Among cancer patients undergoing chemotherapy, does implementing music therapy help aid in the management of chemotherapy induced physical and psychological symptoms?

## LITERATURE CONNECTION

- Music interventions allowed patients to escape from general stress and worries related to their cancer diagnosis and treatment and offered “hope for the future and inspiration to move forward” (Bradt, 2015).
- Music therapy significantly reduced the severity, duration, and incidence of chemotherapy induced nausea/vomiting (Karagozoglu, 2013).
- Music therapy minimized tiredness and fatigue levels (Lima, 2020).
- Patients who received music therapy reported decreased anxiety and pain levels one day and five days after chemotherapy (Tang, 2021).



## PROPOSED NEW RESEARCH QUESTION

Will music therapy compared to music medicine be more effective in managing chemotherapy induced nausea/vomiting, fatigue, pain, and anxiety among inpatients?

### PROPOSAL FOR FUTURE STUDY: METHODS

- **Research design:** Mixed-methods design including RCT to examine the effectiveness of music therapy versus music medicine and a semi-structured, open-ended interview to understand the experiences patients feel when they receive either music intervention.
- **Participants:** 30 adult cancer patients admitted to an adult oncology unit in a hospital located in the San Francisco Bay to receive intravenous chemotherapy.
- **Recruitment:** Utilizing social media posts and posting flyers in Oncology Departments with a music therapy program.
- **Procedure:**
  - Obtain patient demographics (age, gender, ethnicity, marital status, education level, and type of cancer) and music preferences.
  - Patients will be randomly assigned to one of three groups using a computer randomization program:

| Music Therapy   | Music Medicine   | Control Group   |
|---|--|---|
| Ten participants will partner with a music therapist who will offer live music, will encourage the patient to play an instrument, sing, and/or create their own music within a 30-minute session before receiving chemotherapy. | Ten participants will listen to 30 minutes of soft pre-recorded songs before receiving chemotherapy. | Ten participants will receive neither music intervention. |

- **Measures:** The Chemotherapy Toxicity Scale will be used to assess nausea/vomiting & fatigue, the Visual Analogue Scale (VAS) to assess pain, and the State-Trait Anxiety Inventory (STAI) to assess anxiety levels before and after chemotherapy.
- **Interviews:** A 30-min semi-structured, open-ended interview will take place in a private room within 24 hours of the chemotherapy session.

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## DATA ANALYSIS

- Quantitative analysis: Statistical analysis will be used to analyze the results and see if there lies a relationship between music interventions and management of chemotherapy induced symptoms.
- Qualitative analysis: A theoretical thematic analysis approach will be used to analyze patient responses and find common themes.

## CONCLUSION

- There is lack of research that examines the effects of different music interventions on physical and psychological symptoms among patients undergoing inpatient chemotherapy.
- This research proposal will bridge the gap by examining the effectiveness of music interventions on physical and psychological symptoms among inpatients receiving chemotherapy.
- We anticipate that the results of this study will show a reduction in nausea/vomiting, fatigue, pain, and anxiety levels among patients who received either music intervention compared to the control group.
- The proposed study will provide further understanding of how applying a non-pharmacological approach can potentially manage symptoms induced by chemotherapy and perhaps other cancer-related treatments.
- For further discussion, long-term music therapy sessions can be implemented to provide further understanding on how music therapy might affect cancer patients over time.

## SELECTED REFERENCES

- Bradt, J., Potvin, N., Kesslick, A., Shim, M., Radl, D., Schriver, E., Gracely, E. J., & Komarnicky-Kocher, L. T. (2015). The impact of music therapy versus music medicine on psychological outcomes and pain in cancer patients: a mixed methods study. *Supportive Care in Cancer*, 23(5), 1261–1271.
- Karagozoglu, S., Tekyasar, F., & Yilmaz, F. A. (2013). Effects of music therapy and guided visual imagery on chemotherapy-induced anxiety and nausea-vomiting. *Journal of Clinical Nursing (John Wiley & Sons, Inc.)*, 22(1–2), 39–50.
- Lima, T. U., Moura, E. C. R., Oliveira, C. M. B. de, Leal, R. J. D. C., Nogueira Neto, J., Pereira, E. C., Nascimento, R. V. B., Oliveira, E. J. S. G. de, & Leal, P. da C. (2020). Impact of a Music Intervention on Quality of Life in Breast Cancer Patients Undergoing Chemotherapy: A Randomized Clinical Trial. *Integrative Cancer Therapies*, 19, 1–9.
- Tang, H., Chen, L., Wang, Y., Zhang, Y., Yang, N., & Yang, N. (2021). The efficacy of music therapy to relieve pain, anxiety, and promote sleep quality, in patients with small cell lung cancer receiving platinum-based chemotherapy. *Supportive Care in Cancer*, 29(12), 7299–7306.