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# A Melody for Anxiety Relief in ICU Patients

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## Question

In patients in the ICU, does exposure to music therapy compared to no music therapy improve anxiety levels?



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## Background

- About 45% of patients in the ICU will experience documentable anxiety (May et al., 2019).
- Approximately 28% of patients in the hospital in general will experience symptoms of anxiety (Walker et al., 2021).
- Almost 4 million patients are admitted to the ICU each year which equates to 1.8 million experiencing some form of anxiety (Philip R. Lee Institute of Health Policy Studies, 2022).
- Music therapy provides a personalized route of relaxation for each patient.
- Pharmacologic treatments for anxiety often have undesirable side effects.
- Music therapy is a nonpharmacological treatment without side effects.

Study	Description	Results
Effect of music therapy on ICU induced anxiety and physiological parameters among ICU patients: An experimental study in a tertiary care hospital in India by Chahal et al. (2021).	<b>Level II randomized control trial</b> that used pre and post tests to determine the effectiveness of music therapy in ICU patients. The study had 70 participants and used a pre-selected playlist for all patients in the experimental group.	Chahal et al. found that self-reported anxiety levels and physiological responses to anxiety were improved after the implementation of music therapy.
Effect of music therapy on anxiety and pain in critical polytraumatized patient by Conteras-Molina et al. (2020).	<b>Level II randomized control trial</b> that had 46 participants with 21 of these in the experimental group. The study focused on pain and anxiety ratings in response to music therapy in an ICU setting.	The study showed statistically significant results with a p value of 0.01. This showed that music therapy would reduce anxiety even if very few sessions of music therapy were utilized. The study also reported that a majority of participants had very little interest in music.
Effect of music intervention on state anxiety and physiological indices in patients undergoing mechanical ventilation in the intensive care unit: a randomized controlled trial by Lee et al. (2017).	<b>Level II randomized control trial</b> that focused on mechanically ventilated patients that were in an ICU. They utilized a nurse that was unaware of the studies aims to gather unbiased data. The study included 85 patients that had been in the ICU for longer than 24 hours. The study measured serum cortisol levels and utilized self-reported anxiety levels before and after the music therapy intervention.	The researchers report that anxiety levels and cortisol levels were decreased after a single music therapy session. The study showed that a single 30-minute session of music therapy would decrease anxiety for patients in the ICU.
The effect of music on comfort, anxiety and pain in the intensive care unit: a case in Turkey by Çiftçi and Öztunç. (2015).	<b>Level III quasi experimental</b> study that had 72 patients from an ICU in Turkey. Participants could not be in the ICU more than 48 hours. Rast, soft instrumental music, was used as the music therapy intervention. Anxiety was assessed initially, 30 minutes later with no intervention, and again after 30 minutes of music intervention.	The study reported a significant decrease in the systolic blood pressure of the participants after the music therapy was implemented. They also reported a decrease in anxiety levels based on two different scales.
Impact of an active music therapy intervention on intensive care patients by Golino et al. (2019).	<b>Level IV cohort study</b> that utilized pre and post tests with 52 patients. Participants experienced a relaxation intervention or a song choice intervention. Anxiety levels were self-assessed by the participants. All music therapy interventions were supervised by a licensed music therapist.	The researchers reported that a single session of music therapy would decrease anxiety in patients in the ICU. Family members were often present which could have skewed results.
Music listening among postoperative patients in the intensive care unit: a randomized controlled trial with mixed-methods analysis by Ames et al. (2017).	<b>Level II randomized control trial</b> that had 41 surgical patients that received music therapy after surgery while in the ICU. They received 50 minutes music therapy sessions four times per day or spaced out every four to six hours. Patients that scored 15 or greater on the General Anxiety Disorder-7, which indicated severe anxiety, were excluded from this study.	The study examined pain, opioid intake distress, and anxiety scores. The researchers reported no significant difference in any of these values after the implementation of music therapy.

## Conclusions

- Approximately 5 of the 6 articles supported the conclusion that music therapy would reduce anxiety levels in ICU patients.
- Due to limited sample sizes and localized studies, further research is indicated to ensure that music therapy is an effective intervention in the reduction of anxiety.



<https://www.houstonmethodist.org/blog/articles/2020/dec/what-anxiety-feels-like-and-why-it-happens/>

## Application

- Nurses will be able to utilize music therapy in conjunction with pharmacological interventions to reduce anxiety levels in ICU patients.
- Nurses can provide education to other staff about the availability and effectiveness of music therapy in reducing anxiety.
- Nurses will participate in continuing education about the implementation of music therapy.