

Efficacy of Live Versus Recorded Harp Music in Reducing Preoperative Stress and Fear Related to Minor Surgery: A Pilot Study

Fabrizia Gelatti et al. *Altern Ther Health Med*. 2020 May.

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Altern Ther Health Med

. 2020 May;26(3):10-15.

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- PMID: **32088668**

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Abstract

Context: Before surgery, people can become concerned about risks that may arise, experiencing fear and stress. It is possible to implement nonpharmacological interventions to reduce fear and preoperative stress using expressive arts, including music therapy.

Objective: The aim of this study was to assess the effectiveness of live harp music and compare it with that of recorded harp music in reducing preoperative stress and fear and changes in blood pressure (BP) and heart rate (HR).

Design: The study was a pilot study, with a quasi-experimental design.

Setting: The study took place in a surgery unit's clinic, held weekly, in a teaching hospital in Milan, Italy.

Participants: Participants were 46 people undergoing day surgery, divided into 2 groups: 24 in the intervention group and 22 in the control group. No one dropped out of the study.

Intervention: The intervention group listened to live harp music and the control group listened to recorded harp music, immediately before a surgical intervention. The research team had defined a musical protocol based on the theoretical principles of harp therapy.

Outcome measures: Before and after the musical intervention, the research team investigated each patient's level of fear and stress, using the same self-evaluation questionnaire (HR) and blood pressure (BP).

Results: Of the 46 participants, 46% were male, and 54% were female. Fear values were reduced significantly and in equal measure in the intervention ($P = .001$) and control ($P = .0001$) groups. The live harp music was more effective in reducing HR ($P = .001$) and diastolic BP ($P = .007$), than was recorded harp music, with $P = .151$ and $P = .164$, respectively. Based on the results, the research team determined that a randomized controlled trial (RCT) would require 90 patients for both the intervention and control groups.

Conclusions: Harp therapy brought benefits by significantly reducing fear and stress and HR and BP. It would be useful to perform a multicenter RCT to confirm these results.

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