

## Covid-19 and music therapy: the impact of the pandemic on anxiety, pain and sedation in pediatric oncology patients undergoing invasive procedure. A descriptive observational study

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## Abstract

### Background

During COVID-19 pandemic, Italian pediatric oncology departments were obliged to adopt restrictive measures to minimize the risk of in-hospital infections in patients and staff members. Music therapy (MT) activities preparing children to invasive procedure (IP) were suspended. The aim of this study was to compare the level of anxiety, pain and sedation in pediatric patients undergoing IP before (T1), during (T2) and after (T3) the pandemic breakthrough, with and without the presence of MT.

### Methods

From January to September 2020, 20 children (age 2-15) with leukemia undergoing to invasive procedure were enrolled. During T1 and T3 children received preoperative preparation with MT by a certified music-therapist. In T2 they received music or video by clinical staff. Preoperative anxiety scores were measured with the m-YPAS scale. The average consumption of drugs used was analyzed.

### Results

Significant differences in preoperative anxiety levels between scores in T1, T2 (p.value = 0,0000014) and in T2, T3 (p.value = 0,0000031) were observed. No difference between T1-T3 (p.value = 0,96). Higher dosage of midazolam in T2 (1,14 mg 0,189) compared to T1 (0,71 mg 0,399) and T2 (1,14 mg 0,189) were observed

### Conclusion

This descriptive observational study suggest the absence of MT due to the pandemic, resulted in higher levels of pre-operative anxiety in pediatric patients undergoing IP and increased use of anxiolytic drugs for analgesia and sedation.

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### Abstract

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