

## **The Analgesic Properties of a Music Intervention in the Post Anesthesia Care Unit**

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**Introduction:** Twenty to 85% of surgical patients develop persistent postsurgical pain (PPP) following surgery. Listening to music has been shown to decrease pain scores and increase patient satisfaction in postoperative adult patients.

**Identification of the problem:** Under management of the severity and duration of acute postoperative pain in the post anesthesia care unit (PACU) is a significant risk factor for PPP and causes delays in discharge from the PACU. Evidence of the analgesic effects of music interventions suggest that listening to music has a positive effect on decreasing pain scores and increasing patient satisfaction in postoperative adult patients.

**The purpose of this study was to:** 1) determine whether a combined music pharmacological intervention was an effective multimodal approach to mitigate adult pain for patients undergoing joint replacement surgery in the PACU; and 2) measure the effect of music intervention on reducing PACU length of stay (LOS).

**Methodology:** A prospective, randomized control trial study design is proposed to determine whether a combined music pharmacologic intervention decreases discharge pain scores and decreases pain level delays to discharge from the PACU compared to pharmacological interventions alone.

**Results:** The study was completed December 2020. Dissemination of findings will occur by the end of 2021 months by submitting results to the Journal of Perianesthesia Nursing (JOPAN) for publication and presentation of findings at the national conference.

**Discussion:** Multiple lines of evidence demonstrate that music interventions are effective in decreasing a patient's perception of pain.

**Conclusion:** The lack of improvement in pain scores in the intervention group may be due, in part, to the low average pain scores participants in the study reported both upon admission and at discharge from the PACU.

**Implications for perianesthesia nurses and future research:** Further opportunities exist to test the effects of music intervention on patient and clinical outcomes immediately after surgery. Our results provide estimates for pain and PACU LOS to determine sample sizes for future randomized controlled trials. Future studies should also measure the benefits of music interventions with different surgical and anesthetic populations.