

The Effect of Non-pharmacological Modalities for Pain, Anxiety and Length of Stay in PACU

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Introduction: Pain and anxiety are common post-operative complications in the Post-Anesthesia Care Unit (PACU) that can have negative implications on both short-term and long-term recovery including increased morbidity, prolonged hospitalization, and prolonged use of opioids¹. Studies have demonstrated beneficial effects of nonpharmacologic therapies, like soothing music, on post-operative pain and anxiety. The use of perioperative music seems to be safe and patient-friendly^{2,3,4}.

Identification of the problem: In line with current literature, increased pain and anxiety in the post-operative period is a commonly encountered issue in this Midwest teaching hospital's PACU. While pharmacological and non-pharmacological interventions are available for RNs to use to manage patients' pain and anxiety, non-pharmacologic interventions are inconsistently utilized. Additionally, patient-specific music has not been available for use within the PACU.

EBP Question/Purpose: PICO question. Databases utilized. The purpose of this project was to evaluate the effect(s) of relaxation and music on post-operative pain, anxiety, and length of stay (LOS). The following PICO question was investigated: Do patients undergoing vaginal/abdominal hysterectomies and/or urogynecology complex procedures, who use iPads with alternative pain and anxiety management applications, have decreased pain, and/or LOS compared to a control group? Databases CINAHL, Ovid, and Pubmed were searched using the following terms: nonpharmacological interventions and surgical patients and music. Search was limited to articles available online, in English, and published between years 2020-2022. The search yielded 36 articles; 4 were selected as best-evidence to guide this project.

Methods/Evidence: Through grant funding, the study team procured iPads with music, game, and relaxation applications. Between March and August 2021, RNs identified appropriate patients and educated them on iPad use, pre-operatively. Patients' anxiety and pain levels were assessed prior to surgery using a verbal Likert scale.

In the PACU, enrolled patients used the iPad in conjunction with current standards of care. Patients' pain and anxiety were assessed upon admission to the PACU and at discharge. LOS was also collected.

Significance of Findings/Outcomes: Pain and anxiety levels were collected and PACU LOS was documented on enrolled patients. Data was compared to a control group matched for surgery type. Control group included retrospective chart audit of similar surgical patients from March-August 2020. Patients enrolled in the iPad group reported lower severity of pain between PACU arrival and PACU discharge compared to the control group (iPad = 38.5% improvement v. control = 19.0 % improvement), suggesting that adjunct nonpharmacological management may impact the severity of pain experienced. No differences were noted in anxiety levels and PACU LOS between the two groups.

Implications for perianesthesia nurses and future research: Findings suggest that music and relaxation applications during the peri-operative period has positive effect on patients' pain. Further investigation into the effects of nonpharmacological modalities on anxiety is needed.

References

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