

The Effects of Non-pharmacologic Modalities for Pain, Anxiety, and Length of Stay in PACU

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Introduction

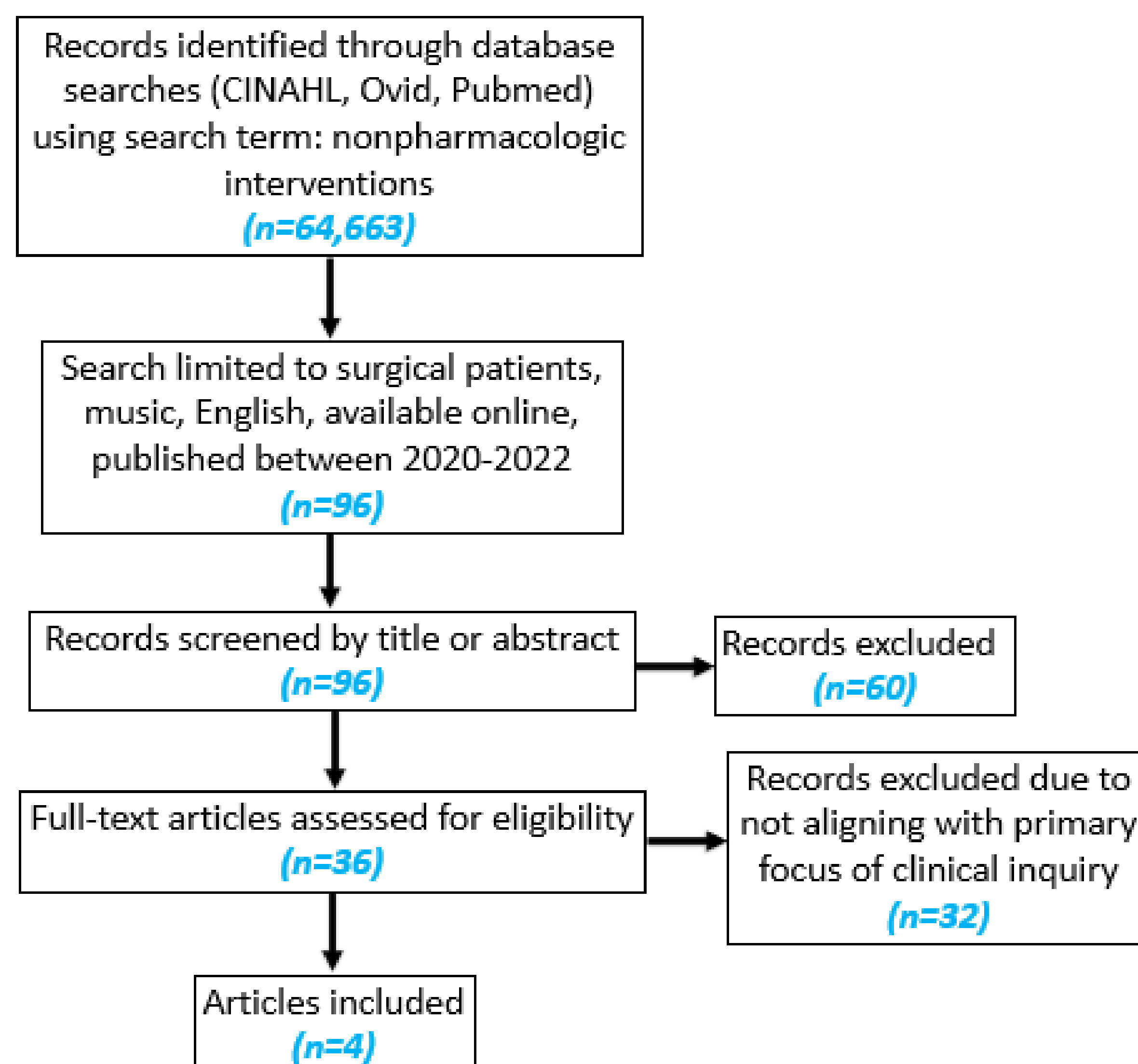
Inadequate pain control and increased anxiety are common issues encountered in the Post Anesthesia Care Unit (PACU). Non-pharmacologic interventions such as soothing music have been shown to decrease anxiety, improve relaxation, comfort and improve emotional status^{1,2,3,4}.

Increased pain and anxiety in the post-operative period is a commonly encountered issue in this 448-bed Midwest community teaching hospital's PACU. While non-pharmacologic interventions are available to manage patients' pain and anxiety, these interventions are inconsistently utilized. Additionally, patient-specific music has not been available for use within the PACU.

Purpose

The purpose of this project was to evaluate the question: Do patients undergoing vaginal/abdominal hysterectomies and/or urogynecology complex procedures who use iPads with alternative pain and anxiety management applications have decreased pain, anxiety, and/or PACU length of stay (LOS)?

Literature Review



Methods

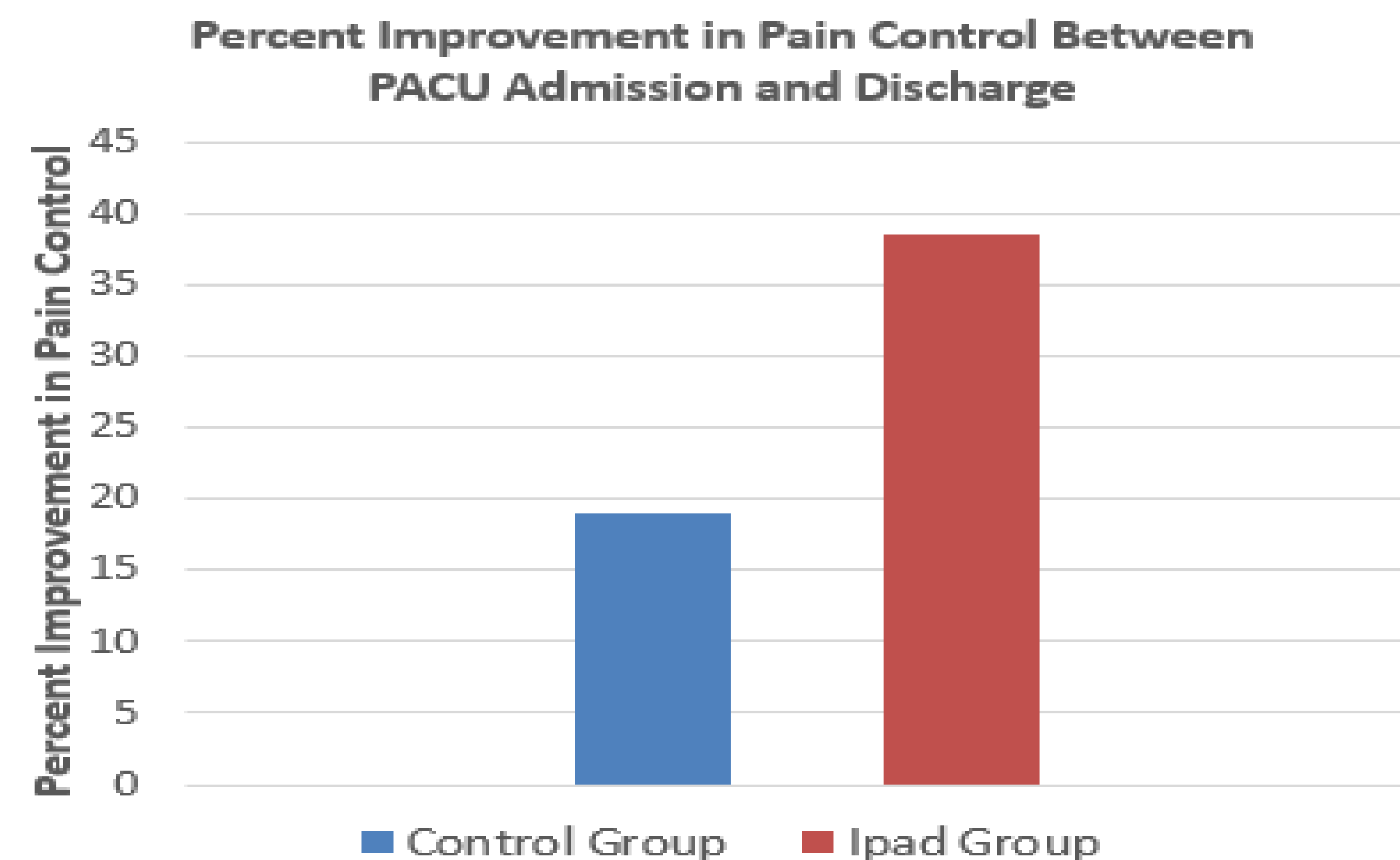
Through grant funding, the study team procured iPads with music, game, and relaxation applications. Between March and August 2021, Registered Nurses identified appropriate patients ($n=134$) and educated them on iPad use, pre-operatively. Patients' anxiety and pain levels were assessed prior to surgery 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 from PACU. PACU LOS was also collected.

Pain and anxiety ratings as well as PACU LOS data collected from the iPad group were compared to like data obtained through retrospective chart review from a control group matched for surgery type ($n=175$). Duration of the project was 6 months.

Results

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 in pain v. control group = 19.0% improvement in pain).



No differences were noted in anxiety levels and PACU LOS between the control group and iPad group.

Significance of Findings

Improvement in pain control in the iPad group suggests that adjunct nonpharmacologic management through use of music, games, and relaxation applications may positively impact the severity of pain experienced in the post-operative period.

Inferential statistical analysis was not completed for this project, so statistical significance cannot be determined. However, the improvement in pain control in the iPad group can be considered clinically significant as it was considerable enough to warrant inclusion of iPads in future patients' plans of care. of the iPads with future patients.

Implications

Findings suggest that music and relaxation applications during the peri-operative period have positive effects on patients' pain control. Further investigation into the effects of these nonpharmacologic modalities on anxiety and PACU LOS is warranted.

Use of the iPads for adjunct pain management in additional surgical patient populations at the study site is planned for the near future. Effects on anxiety and PACU LOS in the additional surgical patient populations will also be studied.

References



Contact Information

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