

EXPLORING THE MULTIMODAL THEORY OF PAIN MANAGEMENT: RESULTS OF A RANDOMIZED CONTROLLED TRIAL

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Background & Significance: This study was a test of Good's middle range theory of multimodal pain management. This theory posits that a multimodal approach to pain management that includes pharmacologic management (opioids and adjuncts) as well as patient preparation through education and the use of complementary interventions, such as music will result in better management of pain than any one modality used alone.

Purpose/Design: The purpose of this four-group (control group, instruction group, music group, and instruction + music group) randomized controlled trial (RCT) was to examine the impact of music, pain management focused preoperative instruction, and a combination of music and pain management focused preoperative instruction on postoperative pain in breast augmentation patients.

Sample/Setting: The sample for this study, recruited from a single outpatient surgical center, included healthy adult females (from 20 to 58 years old) who were having elective breast augmentation surgery (N = 96).

Procedures/Measures: All groups received usual and customary care that includes, usual preoperative teaching and pharmacological management. Patients assigned to music groups listened to their preferred music during the PACU stay. Patients assigned to receive pain management focused preoperative instruction viewed instruction on a DVD player to minimize variation in instruction. Pain and helpfulness were both measured with a 10-point verbal rating scale.

Findings: There were no differences between groups at baseline based upon age, race, marital status, income, or education and there were no differences between groups in opioid dosing. In this sample, pain at discharge and average PACU pain was lower in the experimental groups (teaching, music, and combined) compared to the control group, but this difference was not statistically significant. Low levels of power due in part to a small effect size because of low levels of postoperative pain ($x = 3.5$) may have resulted in a type II error.

Implications: When patients receive adequate opioid pain management post-operatively, multimodal (teaching and music) interventions add only a small incremental improvement in reports of pain management. However, as patients rated the experimental interventions as very helpful, their usefulness should be considered. Additional research with larger samples is still needed.