Subanesthetic Ketamine for Postoperative Analgesia: An Evidenced-Based Project

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Abstract
Roughly 100 million surgical procedures are performed in the United States (U.S.) each year and more than 80% of these patients experience acute postoperative pain. Pain costs the U.S. an estimated $560 to $635 billion annually and is a significant contributor to national rates of mortality, morbidity, and disability. Despite these findings, patients continue to receive suboptimal postoperative pain relief.

The adjunct administration of subanesthetic ketamine is opioid-sparing and can improve the effectiveness of a multimodal pain management approach. This project used an exploratory descriptive design to examine how an evidence-based presentation impacted the clinical practice of certified registered nurse anesthetists (CRNAs). A questionnaire describing individual pain management practices before and after an evidence-based presentation on multimodal pain management using subanesthetic ketamine was included. Participants completed a pre-intervention questionnaire. The student registered nurse anesthetist (SRNA) then presented an evidence-based teaching intervention on subanesthetic ketamine based on a synthesis of current research. Consistent with current literature, a subanesthetic ketamine dose of 0.5 mg/kg was suggested to participants. As recommended in the literature, subanesthetic ketamine could be administered during the preoperative or intraoperative periods with effective control of pain on emergence. Two weeks later, a post-intervention questionnaire was mailed to the SRNA using provided self-addressed envelopes. All four participants reported the evidence-based intervention influenced their consideration of subanesthetic ketamine administration. Increases in subanesthetic administration frequencies were also noted.