Music Therapy Effects on Pain and Anxiety Throughout the Perioperative Period

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Problem Statement

Music Therapy (MT) is defined as clinical and evidence-based interventions that are used to achieve individualized goals within a therapeutic relationship by a credentialed professional (Matsota et al., 2013). Despite the evidence that MT reduces perioperative anxiety and pain, it has not been routinely used in the perioperative period (Hole et al., 2013).

Although AdventHealth provides MT services, it is only available at one campus and is not routinely used in the perioperative period. Therefore, this project reviewed the literature to determine if MT is effective in reducing anxiety and pain in the perioperative period.

Literature Review

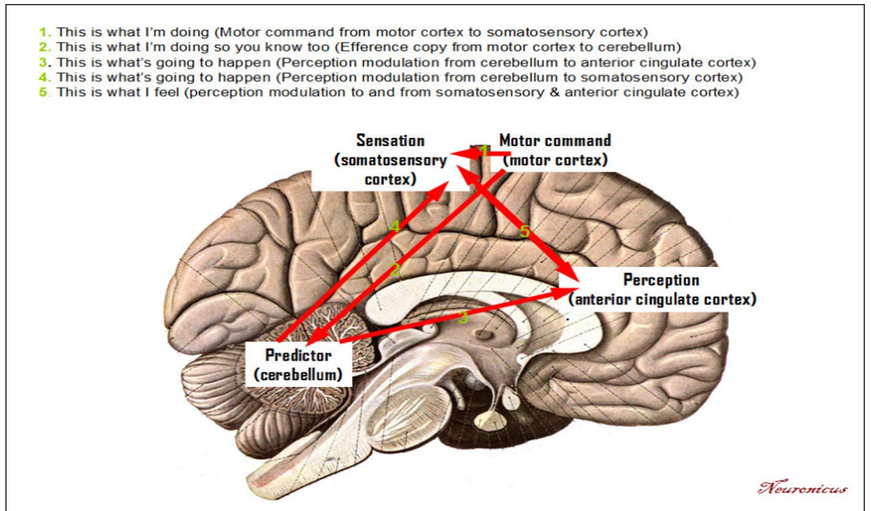
A systematic review of the literature was guided by two research questions. PICOT: In adult patients undergoing surgery (P), how does MT (I) affect anxiety and pain (O) throughout the perioperative period (T)?

PICOT: In the 2019 Student Registered Nurse Anesthetist (SRNA) cohort at AdventHealth University (AHU) (P), will a PowerPoint presentation regarding MT and its effects on anxiety and pain (I) increase the SRNAs' knowledge base (O) during one class period (T)?

A literature review found that inadequate perioperative pain control has resulted from a multitude of issues including lack of existing effective treatment modalities, drug shortages, and the implications of the opioid epidemic (Pogatzki-Zhan et al., 2017; Morris & Mir, 2015; Ross, 2018). The effects of the nationwide narcotic shortage have particularly been experienced by anesthesia providers, including AHU SRNAs in their clinical rotations at various AdventHealth affiliations. Anesthesia providers, including SRNAs, are faced with finding alternative therapies for pain control daily in their clinical practice.

Project Methods

An educational PowerPoint was conducted, with the objective of helping AHU SRNAs understand the effects of perioperative MT on pain and anxiety. A pre-test and a post-test were administered before and after the presentation to evaluate for increased knowledge base.



MT works by activating the anterior cingulate cortex of the brain.

Analysis & Conclusions

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	PreTest	3.9048	21	1.84132	.40181
	PostTest	8.1429	21	1.01419	.22131

Paired sample tests from the pre-test and post-test showed percentage scores significantly increased by 42%.

Paired Samples Test

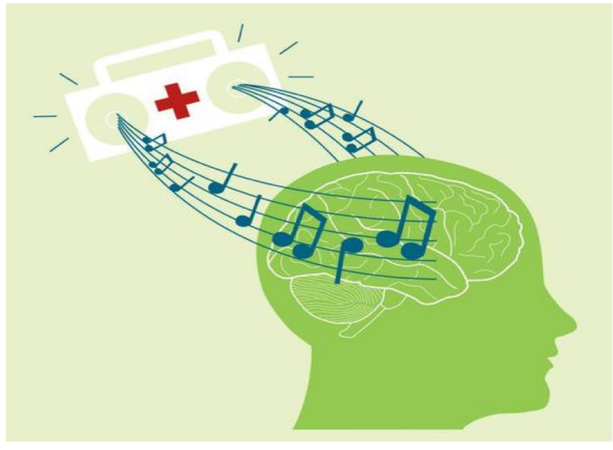
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	PreTest - PostTest	-4.23810	2.11907	.46242	-5.20269	-3.27350	-9.165	20	.000

Findings

These results suggest that the educational PowerPoint presentation helped the AHU SRNAs expand their knowledge base regarding MT's effects on perioperative pain and anxiety.

Potential Implications:

1. Applied = improve patient outcomes
2. Cost effective
3. Improved patient satisfaction
4. Educate healthcare professionals



Acknowledgments

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References: Available upon request