

Effectiveness Of Music Therapy On Post Operative Pain And Sleep Among Patients Who Undergone Abdominal Surgery

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ABSTRACT

Music therapy as a non pharmacological therapy can have multiple benefits including reduction of anxiety and pain, decreased heart rate, respiratory rate, myocardialoxygen demand, and systolic blood pressure and thus promote relaxation amonghospitalized patients. It is used widely all over the world as a painless, safe, inexpensive and practical nonpharmacologic therapeutic modality to reduce post operative pain. The present study aimed to evaluate the effectiveness of music therapy on post operative pain among patients who undergone abdominal surgery. The study setting was VMMC, Karaikal. Purposive sampling technique was used to select 100 patients who undergone abdominal surgeries for the study. The tool used for the data collection was self structured demographic profile and Visual Analogue Scale for assessing pain intensity. The result of the study revealed that the music therapy was effective in reducing the post operative pain among abdominal surgery patients from day 1 (t value 11.36) to day 2 (t value 8.61) and there was significant association found between level of pain and selected demographic variables such as age, type of surgery and duration of pain. The study concluded that Music therapy may help reduce pain and anxiety during painful procedures and thus increases patient satisfaction and overall procedure experience. Nurses must integrate non pharmacological therapies in management of pain.

INTRODUCTION

Abdominal surgery covers the surgical procedures that involve opening of the abdomen. It includes surgeries on various organs such as liver, kidney, stomach, intestines, pancreas, etc.¹ Globally every year there are estimated more than 234 million major surgeries performed². Among these the abdominal surgeries are most common surgeries either done as elective or emergency. Pain during post operative period is inevitable both in open and laparoscopy surgeries³. Conventionally, pain management lays emphasis on the use of pharmacological agents to get rid of pain perception. On the other hand, pain is a subjective phenomenon and is an unpleasant feeling and emotional experience related to tissue damage or potential tissue damage.⁴ Moreover patients differ in their response to pain and to analgesics. The prevalence of post-operative pain ranges from 84 % to 96 % among inpatient abdominal surgery for the first three post operative days⁷. Uncontrolled pain or inadequate pain management contribute to increased suffering, additional complications, delayed recovery, less patient satisfaction and higher health care costs⁸. Presently many non-pharmacological and complementary therapies are available to manage post operative pain effectively which included hot and cold therapy, massage therapy, music therapy, progressive muscle relaxation, guided imagery, cognitive behavior therapy, acupuncture etc.⁵ These Non- pharmacological pain therapies alleviate pain by altering pain perception of the patient. Music therapy as a non pharmacological therapy can have multiple benefits including reduction of anxiety and pain, decreased heart rate, respiratory rate, myocardial oxygen demand, and systolic blood pressure and thus promote relaxation among hospitalized patients.⁶ It is used widely all over the world as a painless, safe, inexpensive and practical nonpharmacologic therapeutic modality to reduce post operative pain.

Statement of the problem

A study to evaluate the effectiveness of music therapy on post operative pain among patients who undergone abdominal surgery, VMHC, Karaikal.

Objectives

1. To assess the level of post operative pain among patients who undergone abdominal surgery before intervention
2. To Plan & implement the intervention - music therapy to selected patients who undergone abdominal surgery
3. To evaluate the effectiveness of music therapy on post operative pain among patients who undergone abdominal surgery after the intervention
4. To associate the level of post operative pain with selected demographic variables of patients who undergone abdominal surgery.

Methodology

A Pre experimental one group pretest – post test design was adopted for the present study. A total of 100 post operative abdominal surgery patients were selected by purposive

sampling technique from both Male and Female Surgical Ward admitted in Vinayaka Mission's Medical College Hospital, Karaikal for the study. The tool used for the data collection was self structured demographic profile consisting of name, age, sex, educational level, employment status, religion, marital status, residence, recreation and type of surgery. Visual Analogue Scale encompassing 10 divisions at equal distance namely 0,1,2,3,4,5,6,7,8,9,10 for assessing pain intensity. After getting written consent from patients, the baseline data were collected using demographic profile and pretest pain intensity was assessed by using VAS before music therapy. Music therapy was administered for the duration of 30 minutes both in morning and evening time for the first two days of post operative period. Post test was conducted by using the same scale. The collected data were analyzed by using both descriptive and inferential statistics.

Results

The analysis of demographic data of the study participants revealed that the majority 60% of study participants were belonged to 20-40 years and maximum 53% of the participants were females. The greater 56% of the patients had upto secondary education and 47% of the subjects were employed. The greatest 83% were belonged to Hindu religion and 73% of the participants got married. The maximum 80% of the study participants were residing in rural area. The majority 63% of the sample had listening to music as their recreation. The majority of study participants 53.3% had undergone Laparoscopic abdominal surgery.

The result of the study revealed that the music therapy was effective in reducing the post operative pain among abdominal surgery patients from day 1 (t value 11.36) to day 2 (t value 8.61). Thus the present study showed that the music therapy was significant in reducing the post operative pain level.

Table 1 Distribution of study participants based on pain intensity

N=100

Time of the day	Category of Pain intensity	Day 1				Day 2			
		Pretest		Post test		Pretest		Post test	
		F	%	F	%	F	%	F	%
Morning	Mild	35	35	20	20	25	25	38	38
	Moderate	45	45	46	46	30	30	42	42
	Severe	20	20	34	34	45	45	20	20
Evening	Mild	30	30	35	35	32	32	35	35
	Moderate	45	45	55	55	38	38	45	45
	Severe	25	25	10	10	30	30	20	20

Table 2 Effectiveness of music therapy on post operative pain among patients undergone abdominal surgery

Day	Time of the day	Assessment	Mean	SD	SE	't' value	P value
Day 1	Morning	Pretest	12.3	3.19	0.45	11.36*	0.05
		Post test	8.03	2.01			
	Evening	Pretest	15.4	4.30	0.59	10.68*	0.05
		Post Test	9.15	2.81			
Day 2	Morning	Pretest	14.5	5.92	0.32	10.34*	0.05
		Post test	7.31	3.97			
	Evening	Pretest	14.21	3.05	0.47	8.61*	0.05
		Post Test	8.88	1.99			

*significant at 5% level

Table: 3 Association between the pretest level of pain with selected demographic variables of study participants

Demographic variables	X ² Value	P Value
Age	9.563	0.010*
Type of surgery	10.063	0.030*
Duration of pain	13.543	0.001*

*Significant at 5% p <0.05 level

DISCUSSION

The result of the study revealed that the music therapy was effective in reducing the post operative pain among abdominal surgery patients from day 1 (t value 11.36) to day 2 (t value 8.61). Thus the present study showed that the music therapy was significant in reducing the post operative pain level. This was supported by the study conducted **Gogoularadja Avinash and Satvinder Singh Bakshi**⁹ (2020) which showed that there was reduced postoperative pain starting from day 0 ($p < 0.001$), which continued until postoperative day 2 ($p < 0.001$) among patient underwent music therapy.

The result of the present study revealed that there was significant association between level of pain and selected demographic variables such as age, type of surgery and duration of pain. This was contradictory to the study findings conducted by **Bareh Samrika, Fatima D'silva**¹⁰ (2017) that revealed there was no significant association between baseline pain with selected demographic variables of study participants such as age, gender, education, occupational

status and monthly income at $p > 0.05$ level. The reason for non similar result may be due to that the pain is the subjective phenomenon and influenced by multiple factors like physical, physiological, psychological, social factors and based on the personal believes and previous experiences.

CONCLUSION

The results of the present study contribute to the growing body of knowledge that supports listening to music therapy give rise to more pain control among patients undergone abdominal surgery and improve their care in the postoperative period. Nurses must learn about nonpharmacological therapy to reduce pain and thereby can reduce the dose and complications of pharmacological therapy.

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