“A cross sectional study to assess the effect of music therapy on anxiety, pain, physiological variables, and subjective well-being of patients subjected to selected major surgery in selected hospitals, Coimbatore, Tamil Nadu”

ABSTRACT

By

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Background of the Study

Anxiety and Pain are the major problem among patients subjected to any surgery and which has the influence on the recovery process. It was observed that Anxiety and Pain were significantly higher among patients subjected to cardiac surgeries. The pharmacological agents are not relieving Anxiety and Pain completely. Adjuvant Therapy like music is required for complete relieving of Anxiety and pain.

Aim of the Study

The aim of the study is to evaluate the effect of music therapy on anxiety, pain, physiological variables, and subjective well-being of the patients subjected to CABG.
Research Statement

A Cross Sectional Study to Assess the Effect of Music Therapy on Anxiety, Pain, Physiological Variables, and Subjective Well-being of Patients Subjected to Selected Major Surgery in Selected Hospitals, Coimbatore, Tamil Nadu.

Objectives

1. To determine the effect of Music Therapy on Preoperative Anxiety and Physiological Variables of the patients subjected to CABG.
2. To determine the effect of Music Therapy on Immediate Postoperative Pain Intensity of the patients subjected to CABG.
3. To determine the effect of Music Therapy on Late Postoperative Anxiety, Pain Intensity, Physiological Variables, and Subjective Well-being of the patients subjected to CABG.
4. To assess the correlation between Postoperative Anxiety, Pain Intensity and Subjective Well-being of the patients subjected to CABG.
5. To assess the association between Anxiety and Selected Personal Informations of the patients subjected to CABG.
6. To assess the association between Pain Intensity and selected Personal Information’s of the patients subjected to CABG.
Hypotheses

(All the Hypotheses are applicable to only **Post-Test** measurement of study variables, tested at 0.05 level of significance)

H₁₁. There will be a significant mean difference in Preoperative Post-test Anxiety Scores between the CABG patients who received Music Therapy and who did not receive Music Therapy.

H₁₂. There will be a significant mean difference in Preoperative Post-test Pulse Rates, Respiratory Rates, Systolic Blood Pressures, and Diastolic Blood Pressures between the CABG patients, who received Music Therapy and who did not receive Music therapy.

H₁₃. There will be a significant mean difference in Immediate Postoperative Post-test Pain Intensity Scores between the CABG patients, who received Music Therapy and who did not receive Music Therapy.

H₁₄. There will be a significant mean difference in Late Postoperative Post-test Anxiety Scores between the CABG patients, who received Music Therapy and who did not receive Music Therapy.

H₁₅. There will be a significant mean difference in Late Postoperative Post-test Pain Intensity Scores between the CABG patients, who received Music Therapy and who did not receive Music Therapy.

H₁₆. There will be a significant mean difference in Late Postoperative Post-test Pulse Rates, Respiratory rates, Systolic Blood Pressures, and Diastolic Blood Pressures
between the CABG patients, who received Music Therapy and who did not receive Music Therapy.

H17. There will be a significant mean difference in Late Postoperative Post-test Subjective Well-being Scores between the CABG patients, who received Music Therapy and who did not receive Music Therapy.

H18. There will be a significant correlation between Postoperative Pre-test Anxiety, Pain Intensity and Subjective Well-being of patients subjected to CABG.

H19. There will be a significant association between Postoperative Pre-test Anxiety and selected Personal Informations of patients subjected to CABG.

H110. There will be a significant association between Postoperative Pre-test Pain Intensity and Selected Personal Informations of patients subjected to CABG.

Conceptual framework

The present study adopted Roy’s Adaptation Model. This model emphasizes the adoptive behaviors in stressful situation. Music Therapy used in this study helps the patients to adopt the stressful perioperative period.

Methodology

**Research Approach:** Quantitative Evaluative Approach

**Research design:** Quasi-experimental Design.

**Population:** All the patients subjected to CABG in Preoperative, Immediate Postoperative, and Late Postoperative period were considered as population for this study.
**Sample Size:** 700, in which, two hundred subjects were selected for Preoperative Phase, and another 200 for Immediate Postoperative Phase, and remaining 300 subjects were chosen for Late Postoperative Phase.

**Sampling Technique:** Convenient sampling technique

**Tools used for data collection:**

1. Personal Informations
2. Spielberger’s State Anxiety Inventory
3. Numerical Pain Intensity Rating Scale
4. Subjective Well-being Scale

**Data collection Procedure:**

Data were collected in Phase wise; Preoperative Phase, Immediate Postoperative Phase and Late Postoperative Phase. A subject participated in one Phase was not included in other two phases. In all the Phases, data was collected among Experimental Group first and then Control Group.

In Preoperative Phase, Pre-test and Post-test assessment of Preoperative Anxiety and Physiological Variables such as Pulse Rate, Respiratory rate, Systolic Blood Pressure, and Diastolic Blood Pressure were measured in Experimental and Control Group, one hour before the scheduled time of pre medication. Experimental Group received 30 minutes of Music Therapy and Control Group was advised to take rest. Six to eight hours after surgical procedure on the day of surgery was considered as Immediate Postoperative period. In Immediate Postoperative Phase, Pre-test and Post-test Pain Intensity was measured in Experimental and Control Group using Numerical
Pain Intensity Rating Scale. In this Phase, Experimental Group received 30 minutes of Music Therapy and Control Group was advised to take rest. First three Postoperative days were considered as Late Postoperative Phase. In Late Postoperative Phase, data was collected in morning and evening sessions for three consecutive days. Pre-test and Post-test assessment of Anxiety and Subjective Well-being were measured in morning session of first Postoperative day and evening session of third Postoperative day. Other variables such as Pain Intensity and Physiological Variables (Pulse Rate, Respiratory Rate, Systolic Blood Pressure, and Diastolic Blood Pressure) were measured as Pre-test and Post-test in morning and evening sessions of three consecutive Postoperative days. Music Therapy was administered for 30 minutes in morning and evening sessions for three consecutive days.

Description about the intervention:

Music Therapy was the intervention in this study. It is a non-lyrical, Veena based instrumental Music Composed in the raga Hamsadvani and Dwijavanti. The Music was played from portable Cassette player and Patients listened to The Music through headphones.

Results

In this study, 567 (81%) males, and 133(19%) females were included for this study. The study findings showed that there was a significant difference between the Preoperative Anxiety Scores in patients who received Music Therapy and who did not receive Music Therapy(p<0.05). The Pulse Rate, Respiratory Rate, Systolic and Diastolic Blood Pressures were significantly reduced (p<0.05) among patients who
received Music Therapy than Control Group during Preoperative Phase. The Immediate Postoperative Pain was significantly reduced in Experimental Group (p<0.05). The Late Postoperative Anxiety was significantly reduced in patients who received Music Therapy than Control Group (p<0.05). The Late Postoperative Pain Intensity in patients who received Music Therapy was significantly lesser than patients who did not receive Music Therapy. The Pulse Rate, Respiratory Rate, Systolic and Diastolic Blood Pressures were significantly reduced among Experimental Group than Control Group (p<0.05) during Late Postoperative Phase. The Subjective Well-being was significantly improved in Experimental Group than Control Group in Late Postoperative Phase (p<0.05).

**Conclusion**

Music Therapy is very use full adjuvant therapy for reducing Preoperative Anxiety, and Postoperative Pain Intensity and Anxiety. It also reduces the Pulse Rate, Respiratory Rate, Systolic, and Diastolic Blood Pressure in Pre and Postoperative period. Music Therapy can be used to enhance the Subjective Well-being of the patients subjected to Major Surgery.