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## PREOPERATIVE ANXIETY REDUCTION WITH CLASSICAL MUSIC THERAPY

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#### Preoperative Anxiety Reduction with Classical Music Therapy

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Surgery is a traumatic experience that threatens everyone who will undergo surgery. This anxiety is usually motivated by the threat of death, pain, bleeding.

Purpose. This research was quasi-experiment with post-test only control group design approach.

Methods. This research is cross sectional, using quasi experimental methods with one group pre-test and post-test without control group. The sample in this study patients who will undergo surgery in the preparation room of the Fatmawati General Hospital is 20 respondents. Data collection using the HARS (Hamilton Anxiety Ratting Scale) questionnaire.

Results. It was concluded that there was a significant influence of patient anxiety before and after the administration of classical music therapy. The results of the study before being given an intervention have anxiety categories of mild (10%), severe (70%) value of p=0.014. After being given an intervention they have mild (80%), severe (5%) anxiety value of p=0.021.

Conclusion. It is expected that the results of this study can be applied as an SOP for the application of classical music therapy while the patient is in the preparation room of the Fatmawati General Hospital.

Keywords: music, surgery, anxiety.

#### Классикалық музыкалық терапия көмегімен операция алдындағы мазасыздықты төмендету

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Хирургия - бұл операция жасайтындардың барлығына қауіп төндіретін травматикалық тәжірибе. Бұл алаңдаушылық, әдетте, өлім, ауырсыну, қан кету қаупінен туындайды.

Мақсаты: Бұл тек тесттен кейін бақылау тобын жоспарлау тәсілімен квазиэксперименттік зерттеу болды.

Әдістер. Бұл зерттеу квази-эксперименталды әдістерді қолданып, бір топты алдын-ала тестілеуден өткізіп, кейін бақылау тобынсыз тестілеуден өткен зерттеу болып табылады. Фатмавати жалпы ауруханасының дайындық бөлмесінде операция жасайтын науқастарды осы зерттеуде іріктеу 20 респондентті құрайды. Hars сауалнамасын (Hamilton Anxiety Ratting Scale) пайдаланып деректерді жинау.

Нәтижелер. Классикалық музыкалық терапияға дейін және одан кейін пациенттің мазасыздығының айтарлықтай әсері туралы қорытынды жасалды. Араласқанға дейін жүргізілген зерттеу нәтижелері жеңіл (10%), ауыр (70%) р = 0,014 дабыл санатына ие. Араласудан кейін олар жеңіл (80%), ауыр (5%) мазасыздықты р = 0,021 көрсетеді.



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**Қорытынды.** Осы зерттеудің нәтижелерін пациент Фатмавати жалпы ауруханасының дайындық бөлмесінде болған кезде классикалық музыкалық терапияны қолдану үшін SOP (стандартты операциялық процедура) ретінде қолдануға болады деп күтілуде.

Негізгі сөздер: музыка, хирургия, мазасыздық.

# Предоперационное снижение тревожности с помощью классической музыкальной терапии

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Хирургия - это травмирующий опыт, который угрожает каждому, кто перенесет операцию. Это беспокойство обычно мотивируется угрозой смерти, боли, кровотечения.

**Цель:** это исследование было квазиэкспериментальным с подходом к планированию контрольной группы только после тестирования.

**Методы.** Это исследование является перекрестным с использованием квазиэкспериментальных методов с предварительным тестированием одной группы и последующим тестом без контрольной группы. Выборка в этом исследовании пациентов, которым предстоит операция в подготовительной комнате больницы общего профиля Фатмавати, составляет 20 респондентов. Сбор данных с использованием опросника HARS (Hamilton Anxiety Ratting Scale).

**Результаты.** Был сделан вывод о значительном влиянии тревожности пациента до и после проведения классической музыкальной терапии. Результаты исследования, проведенного до вмешательства, имеют категории тревоги легкой (10%), тяжелой (70%) величины (p = 0.014). После вмешательства у них наблюдается легкая (80%), тяжелая (5%) тревожность (p = 0.021).

**Выводы.** Ожидается, что результаты этого исследования могут быть применены в качестве СОП ( стандартная операционная процедура ) для применения классической музыкальной терапии, когда пациент находится в подготовительной комнате больницы общего профиля Фатмавати.

Ключевые слова: музыка, хирургия, тревога.

#### Introduction

Surgery is a traumatic experience harboring every patient prior to surgical procedure. Many reasons for this anxiety including fear of death, pain and symptoms related to the primary pathology subjected to surgery. Nursing interventions are necessary to alleviate the preoperative anxiety, including health education, relaxation exercise and encouragement of spiritual practices. Music therapy are among many relaxation exercises which thought to have effect on alpha wave in the brain to stimulate relaxation and decrease stress response, with end result of muscle relaxation and reduce emotional stress. This study aims to know the effect of classical music therapy on the reduction of anxiety among patients in preo-operation room prior to surgery.

## Methods

A cross sectional quasi-experimental study with one group pre-post-test without control group was performed in pre-operative room Fatmawati Central General Hospital. Twenty patient were subjected to Classical music therapy. Pre and post intervention anxiety were measured using HARS (Hamilton Anxiety Ratting Scale). Univariate analysis were performed for level of anxiety, age and sex.

#### Result

There were 6 (30%) male and 14 (70%) female in this study. All were subjected for major surgery including liver resection, colorectal cancer surgery, esophagus and gastric surgery. Before intervention, 70% respondents had a severe anxiety, while only 5% had severe anxiety in the post intervention.

#### Discussion

Increase anxiety prior to surgery usually corresponds to several symptoms including easy to wake up during the night, increase pulse rate, shivering, fear of operating room, and fear of a failed surgery. [1] All of this may harbor the commencement of surgical procedure since patient might in the end refuse to have surgery.

Table 1. Patient anxiety scale (n=20)

	PRE		POST	
	f	%	f	%
Mild	2	10	16	80
Moderate	3	15	2	10
Severe	14	70	1	5
Panic	1	5	1	5

Our study has shown the effect of music intervention in overcoming anxiety prior to surgical intervention.

Listening to music is naturally a type of entertainment for the soul, thus utilization of this activity as and nursing intervention is ideal due to its cost effectiveness in nature and absence of side effects.[2] Music may also serve as sedative to distract and inhibit the perception of anxiety. [3]

There are three type of music for therapeutic purpose according to Mok, namely classical music, contemporary pop music and Chinese music.[4] In order to induce the relaxing effect, the particular music should have a low pitch, slow rhythm and low volume.[5]

Classical music may increase the release of endogenous opioid, endorphin and encephalin with morphin like activity to reduce anxiety, [6] through Gama Amino

Butyric Acid (GABA) from the midbrain. This substance inhibit electrical impulses between neurons and eliminate anxiety substance neurotransmitter at the perception center and somatic sensoric interpretation in the brain, which in turn reducing anxiety level. We feel that the introduction of classical music therapy before surgical procedure may induce a peace of mind and soul, by which endogenous opioid is produce and reduce the anxiety.[7]

In summary, classical music therapy prior to surgical procedure is beneficial to reduce the level of anxiety in surgical patients. This practice should be the standard nursing care in pre-operative room, be it cost effective and side effect free.

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AUTHOR CONTRIBUTIONS

All the authors read and approved the fnal manuscript.

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**CONFLICT OF INTEREST** 

We have no conflicts of interest to declare.

ETHIC STATEMENT

Informed consent was obtained for publication of this report. Ethics committee approval was not required for this report.