



## Consciousness Recovery Time of Postoperative Patients with General Anesthesia After Listening Murotal Al-qur'an and Music Therapy

Efa Trisna<sup>1</sup>, Musiana<sup>2\*)</sup>

<sup>1,2\*)</sup> Politeknik Kesehatan Tanjungkarang

### ARTICLE INFO

#### Article history:

Received 11 April 2022  
Accepted 21 July 2022  
Published 10 September 2022

#### Keyword:

Murotal Al-Qur'an  
Music  
Recovering

### ABSTRACT

After the operation, the patient will experience a process where there is a decrease in the level of consciousness which is called consciousness recovery. This condition will be experienced by patients after surgery with general anesthesia. This condition must be ended immediately for hemodynamic stability. The aim of the study was to see the effect of Al-Qur'an murotal therapy and music on recovery time in postoperative patients. This type of quantitative research uses a quasi-experimental design with dependent sample t-test. Population and samples were postoperative laparotomy patients under general anesthesia. The result is that there is a difference in the time for consciousness recovery of patients who undergo al-qur'an murotal therapy through audio media with music listening therapy in postoperative laparotomy patients with general anesthesia. In conclusion, between music therapy and murotal speed the time to recover a fast awake is the murotal of Al-Qur'an. The suggestion is that the murotal therapy is chosen to speed up the time to recover consciousness so that the patient's haemodynamics are stable quickly.

This open access article is under the [CC-BY-SA](#) license.



### Kata kunci:

Murotal  
Al-qur'an  
Musik  
Pulih sadar

#### \*) corresponding author

Musiana

Keperawatan Medikal Bedah, Politeknik  
Kesehatan Tanjungkarang  
Jl. Soekarno Hatta No. 1 Hajimena Bandar  
Lampung, Lampung – Indonesia 35145

Email: musiana@poltekkes-tjk.ac.id

DOI: 10.30604/jika.v7i3.1279

Copyright @author(s)

### ABSTRAK

Setelah dilakukan operasi pasien akan mengalami proses dimana terjadi penurunan tingkat kesadaran yang disebut pulih sadar. Kondisi ini akan dialami oleh pasien pasca operasi dengan general anaestesi. Kondisi ini harus segera berakhir untuk kestabilan hemodinamik. Tujuan penelitian untuk melihat pengaruh therapy Murotal Alquran dan musik terhadap waktu pulih sadar pada pasien pasca operasi. Jenis penelitian kuantitatif dengan menggunakan rancangan quasi eksperiment dengan uji dependent sample t-test. Populasi dan sampel adalah pasien pasca operasi laparotomi dengan general anaestesi. Hasilnya adalah bahwa ada perbedaan waktu pulih sadar pasien yang dilakukan terapi murotal Al-qur'an melalui media audio dengan terapi mendengarkan musik pada pasien post operasi laparotomi dengan general anestesi. Kesimpulannya, diantara terapi music dan murotal kecepatan waktu pulih sadar yang cepat adalah murotal Al-qur'an. Saran, terapi murrotal Al-qur'an dapat menjadi alternatif terapi yang di pilih untuk untuk mempercepat waktu pulih sadar sehingga haemodinamik pasien kenbali stabil.

This open access article is under the [CC-BY-SA](#) license.



## INTRODUCTION

Surgery is a unique experience of planned changes in the body and consists of three phases, namely preoperative, intraoperative and postoperative. These three phases are simultaneously called the perioperative period (Smeltzer, S.C., & Bare, 2011). One of the surgeries performed on patients based on indications is laparotomy, in 2016 in Indonesia, there were 1.2 million surgeries and an estimated 32% of them were laparotomy

There are five indications laparotomy (blunt abdominal trauma or sharp)/ruptur abdomen peritonitis internal bleeding the digestive tract (bleeding) heaviness in intestines of smooth and the colon mass on the abdomen. Complications that might happen to do surgery patients postoperative complications that can occur not adequat pulmonary ventilation, a cardiovascular diseases, hypertension, cardiac arrhythmia, a balance of fluids and electrolytes, a sense of comfort and accidents (Jitowiyono, S., & Cristiyanasari, 2010).

Post-laparotomy care is a form of care services provided to patients who have undergone abdominal surgery. The goal of post-laparotomy care is to reduce complications due to surgery, accelerate healing, restore patient function to the maximum extent possible as before surgery and maintain the patient's self-concept.

The recovery room is a room that is used after the patient has completed surgery and an observation of the patient's condition is carried out, so that it is possible to move to the room because the patient's condition is considered stable. The assessment carried out is to provide care until the patient recovers from the effects of anesthesia (return to motor and sensory function), is oriented, has stable vital signs and shows no signs of hemorrhage (Smeltzer, S.C., & Bare, 2011).

In carrying out surgery, anesthesia must be carried out without prior anesthesia, it is impossible to perform surgery (Anik, 2015). Recovery from general anesthesia is a major physiological stress in most patients. The return of patient consciousness from general anesthesia should ideally be smooth and also gradual under controlled conditions (Dinata et al., 2015). Factors causing delayed conscious recovery are caused by various factors, namely pharmacology such as the use of anesthetic drugs, pharmacodynamics, the amount of drugs given, drug interactions, non-pharmacological factors such as hypothermia, the type of anesthesia given and the length of surgery causing the time needed to recover consciousness can be different (Permatasari et al., 2017).

Completely recovered from anesthesia, the patient has a stable blood pressure, adequate respiratory function, a minimum oxygen saturation of 95% and a good level of consciousness. Patient readiness to be transferred to the recovery room is assessed every 15 minutes or 30 minutes and totaled on the assessment with a score below 7 should remain in the Recovery Room until condition improves or is transferred to the Intensive Care Unit. Policy of patient discharge from the recovery room depends on the policy of each recovery unit room unit (usually about 30 minutes), meets the criteria for discharge, >30 minutes the patient is very vulnerable to respond to stimuli (Gwinnutt, 2011). Post

Anesthesia's level of conscious recovery is done by calculating the Alderete Skore. Patient scores were measured at defined intervals, every 5 minutes, 15 minutes, or 30 minutes and totaled on the assessment notes. Patients with a total score less than 8 should remain in the recovery room until their condition improves or they are transferred to an intensive care area (Smeltzer, S.C., & Bare, 2011).

## METHOD

Type of research, quantitative research uses a quasi-experimental design with dependent sample t-test. Population and samples were postoperative laparotomy patients under general anesthesia at Abdul Moeloek Hospital. The number of samples was 60 respondents. The selection of responden used a purposive sampling technique using inclusion criteria, responden no impaired hearing function.

Patient data collection is introduced and asked whether the patient likes classical music and for those who are Muslim, they are introduced to the murotal Al-Qur'an, the letter Ar-Rahman and conveyed to the patient that after the operation, one of these therapies will be heard. Researchers explain the procedure of action to prospective respondents. If the prospective respondent is willing to participate in this research, the prospective respondent signs the informed consent. Researchers explain the procedure for giving Murotal Al-Quran therapy and music.

## RESULTS AND DISCUSSION

The results of research is showed in this table. Table 1 shows that the gender of respondents from the music group was male compared to female, namely 53.3%, while in the murotal group it was 66.7%. Table 2 describes the mean age of classical music group respondents (mean) 48.50 years, median 50.50 with a standard deviation of 18.85. The lowest age is 17 years and the oldest is 77 years. The mean age of respondents in the murrotal group (mean) was 40.80 years, the median was 40.00 with a standard deviation of 14.24. The lowest age is 23 years and the oldest is 80 years.

**Table 1**  
*Characteristics of respondents based on gender*

Characteristics of Respondents	f	%
Gender		
Classical Music Group		
Male	16	53,3
Female	14	46,7
Amount	30	100
Murotal Group		
Male	20	66,7
Female	10	33,3
Amount	30	100

**Table 2**  
*Average age of respondents*

Types of Therapy	Mean	Median	Standard Deviation	Min-Max
Classical music	48.50	50.50	18.85	17-77
Murrotal	40.80	40.00	14.24	23-80

Table 3 depicts the mean time of conscious recovery of postoperative classical music group respondents, namely a mean of 10.87, a median of 10.00 with a standard deviation of 3.794. The lowest time to recover to consciousness was 5 and the highest was 21. The mean time to wake up to the

post-operative respondents in the murrotal group was a mean of 6.00, a median of 5.00 with a standard deviation of 2.754. The lowest conscious recovery time is 2 minutes and the highest is 13 minutes

**Table 3**  
**Time to recover conscious of music therapy and murtal respondents**

Conscious Recovery Time	Mean	Median	Standard Deviation	Min-Max
Classical Music Group	10.87	10.00	3,794	5-21
Murrotal's group	6.00	5.00	2,754	2-13

**Table 4**  
**Results of Bivariate Analysis**

Group	Mean	T-test independent		P Value	95% CI
		SD	SE		
Classical music	10.87	3,794	0.693	0,000	9.45-12.28
Murrotal	6.00	2,754	0.503	0.000	4.97-7.03

Table 4 illustrates the mean time to conscious recovery of classical music group respondents 10.87 with a standard deviation of 3,794. The results of statistical tests with t-test obtained p value = 0.000. The time to recover to consciousness of the respondents in the group was a total of 6.00 with a standard deviation of 2.754. The results of statistical tests with t-test obtained p value = 0.000, it can be concluded that there is a time difference between music therapy and murtal.

The recovery period is very dependent on the speed of induction of the anesthetic drugs. Accelerating the speed of induction of anesthesia will speed up the process of uptake, spread and elimination of anesthesia, so that the speed of induction will affect the speed of patient recovery (Gwinnutt, 2011). Elimination of anesthesia can be carried out by gas (rebreathing), metabolism by the liver, metabolism by the kidneys. Elimination of anesthetics with gas (rebreathing) is influenced by lung ventilation, blood flow and gas solubility (Paula J. Christensen, 2009). Accelerating elimination can be achieved by: high inspiration to the lungs, increased ventilation, increased cardiac output, and high cerebral blood flow.

Given the effects of anesthetic drugs, where inhalation and intravenous anesthetics cause changes in blood pressure, heart rate, intracranial pressure, cerebral blood flow and suppress ventilation (breathing), causing depression of the cardiovascular and respiratory systems (Gwinnutt, 2011), hence elimination of anesthetic drugs through gas (rebreathing) is difficult to work optimally so that management is needed that can speed up recovery. Management that can be done to speed up conscious recovery from the effects of anesthesia is by sound stimulation, namely the Murotal Al-qur'an.

Murotal Al-qur'an therapy is a religious therapy in which a person will be heard to the verses of the Al-qur'an for a few minutes (Al Kahil, 2018). Murotal Al-Quran via Audio can help ventilation by reaching the left area of the cerebral cortex, hypothalamus, sympathetic and parasympathetic nerves where the sympathetic nerves control the work of the heart (Elizabeth, 2009). Murotal Al-qur'an is able to control the heart muscle, it will make a person relax, a relaxed condition far from psychological pressure and stress will

help the performance of anesthetics, the drug will work well so that recovery will take faster time (Nurzallah, 2015).

The effect of giving murotal Al-Quran on recover time also can be find on some research. The effect of giving murotal Al-Quran on recover time of breast cancer patients with general anesthesia at the regional general hospital Dr. Moewardi Surakarta. The results of the Mann Whitney test analysis showed a significant P-value of 0.001 used in the study, namely <0.05. These results state that there is an effect of the Murotal Al-qur'an on the awareness time of breast cancer patients with general anesthesia (Billah, 2015). The effect of mozart classical music therapy on breast cancer patients' awareness time with general anesthesia at Moewardi Surakarta obtained a P-Value of 0.001 <0.05 so that there is an effect of mozart classical music therapy on the conscious recovery time of breast cancer aatients with general anesthesia (Nurzallah, 2015).

The effect of giving murotal Al-Quran not only about recovery time but also can effect to blood pressure and heart rate of post operative patients with general anesthesia, results of the systolic blood pressure T-test obtained p-value 0.044, diastolic blood pressure p-value 0.049 (Rubai, 2018). The effect of murotal Al-Qur'an therapy on hemodynamics and GCS of head injury patients, results of the GCS variable are 2.484 with a p-value of 0.04 so that there is an effect of Murotal Al-qur'an therapy on hemodynamics and GCS of head injury patients (Widaryati, 2018).

Effect giving murotal surah Al-Fatihah can become therapy on anxiety in pre-operative patients, the result of the T-test is 2,586 with a p-value of 0.001 with the characteristics of blood pressure, respiration, pulse so that there is an effect of Murotal Surah Al-Fatihah Therapy on Anxiety in Preoperative Patients (Fitriani et al., 2021).

The results of the study showed that there were differences in the effectiveness of murottal therapy and classical music therapy to decrease the anxiety of patients pre heart catheterization in the Elang Installation of Dr. Kariadi Hospital Semarang (p-value 0.028). Murottal therapy is more effective in reducing anxiety. Music therapy and murottal therapy given with a duration of 30 minutes creates a calm and comfortable atmosphere so that the body becomes more relaxed, blood circulation more smoothly, blood pressure and other vital signs (Darmadi & Armiyati,

2019). Safri's research (2013) Murotal Al-qur'an can increase the awareness of hemorrhagic stroke patients. The results of the study are p-value 0.046 so that Murotal Al-qur'an can increase the awareness of hemorrhagic stroke patients.

The results obtained pain post sectio caesarea before the music therapy mozart average 7,47, pain post sectio caesarea after the music therapy mozart average 5,13. Pain post sectio caesarea before therapy murottal al-qur'an average is 6,60. Pain post sectio caesarea after therapy murottal al-qur'an average is 3.27. No difference pain post sectio caesarea before and after music therapy mozart (P-value = 0.000). No difference pain post sectio caesarea before and after therapy murottal al-qur'an (P-value = 0,000) Eny Purwati (2019)

According to the researchers, the significant difference in time to conscious recovery may be due to the characteristics of respondents based on age, a mean of 48.50, standard deviation 18.85, where with age a person's physiological condition will decline such as a decrease in kidney and liver function so that it will interfere with the process of eliminating anesthetic drugs from a person's vital organs. In addition, the elderly tend to have chronic diseases such as cardiovascular disease and diabetes which affect the process of recovering consciousness, so that the elderly category respondents in the intervention group are greatly helped by the existence of a murotal al-qur'an to eliminate anesthetics and cause differences in the average time to recover consciousness between the intervention group and the control group. Then the characteristics of respondents with status. Furthermore, the duration of inhalation anesthetics and the type of surgery showed that the highest number of respondents was moderate surgery with 25 people (83%), which means that the duration of inhalation anesthesia is 60-120 minutes.

## CONCLUSIONS AND SUGGESTIONS

The conclusion of this study is that there is an effect of giving Murotal Al-qur'an Therapy on Awareness Time for Post Op *Laparotomy* General anesthesia in the Recovery Room. This is because the murotal al-qur'an can increase the feeling of relaxation, and can create calm for the listener, so that the heartbeat will follow the rhythm of the Ar Rahman letter which has the characteristics of having a tone of 44 Hz, regular and consistent harmony, and a steady rhythm (melting-dayu), volume 60 decibels, medium intensity amplitude, there are 31 verses that are repeated and the qiroati in the surah ar-rahman song nahawand where the nahawand song has a decreasing elevation tone movement followed by straight movements 2 to 4 times in the movement reasonable so that it will affect the elimination of anesthetics with gas (rebreathing) and accelerate elimination.

As for music therapy, the time to recover consciousness is longer than the murotal time to regain consciousness, in music therapy there is a significant difference between the time to recover to consciousness between Murotal Al-qur'an and classical music where the time needed to recover quickly to consciousness is the Murotal Al-qur'an, which is 6 minutes, while in 10 minutes of music this may be due to the average age. respondents who received Murotal Al-qur'an therapy were 40.80 when compared with the average age of 48.50 music. In the Murotal Al-Quran is much younger, so the elimination of anesthetic drugs will also be faster. Meanwhile, music therapy will take longer. Murotal therapy should be used in the management of postoperative patients to speed up the time to recover to consciousness, but it must

be prepared to prepare a standard operating procedure that is appropriate.

## Acknowledgment

Acknowledgements are conveyed to Director of Tanjungkarang Health Polytechnic, Chair of surgery room, and all participant who cannot be named one by one who has provided support both morally and materially.

## ETHICAL CONSIDERATIONS

Data collection was carried out after obtaining permission from the study site, with the following stages: the pre-interaction phase, the intervention phase, and the post-intervention phase. In the pre-interaction phase, the activities carried out are identifying prospective respondents who meet the inclusion criteria, providing an explanation of the objectives, benefits, procedures to be carried out and asking prospective respondents to sign informed consent if they are willing to become respondents

## Funding Statement.

This study was funded by Poltekkes Tanjungkarang

## Conflict of Interest Statement

All authors declare no conflict of interest.

## REFERENCES

- Al-Kahil, Abdul (2018). *Heal Without Doctor Health Miracles with Al-qur'an & As-sunnah*. East Java: Ruqiah Learning Center.
- Bruner & suddarth (2002). *Textbook of Medical-Surgical Nursing*. Jakarta: EGC.
- Billah (2015). The Effect of Murottal Al-Qur'an Therapy on the Conscious Recovery Time of Breast Cancer Patients with General Anesthesia at the Regional General Hospital Dr. Moewardi Surakarta. <http://eprints.ums.ac.id/36798/>
- Dinata, Defri (2015). Time to Consciousness Recovery in Pediatric Patients Underwent General Anesthesia at Dr. Hospital Hasan Sadikin Bandung.
- Al Kahil, A. (2018). *Heal Without Doctor, Health Miracles with Al-Qur'an & As-sunnah*. Ruqiah Learningf Center.
- Anik, M. (2015). *Intraoperative Nursing Care in the Surgical Room (Surgical Surgery Perioperative Care Serie)*. CV Trans Info Media.
- Billah, A. khoif. (2015). Pengaruh Pemberian Terapi Murottal Al-Qur'an Terhadap Waktu Pulih Sadar Pasien Kanker Payudara dengan Anastesi General di RSUD Dr. Moewardi Surakarta. *Surakarta: Fakultas Ilmu Kesehatan Universitas Muhammadiyah Surakarta*.
- Darmadi, S., & Armiyati, Y. (2019). Murottal and Clasical Music Therapy Reducing Pra Cardiac Chateterization Anxiety. *South East Asia Nursing Research*, 1(2), 52. <https://doi.org/10.26714/seanr.1.2.2019.52-60>
- Dinata, D. A., Fuadi, I., & Redjeki, I. S. (2015). Waktu Pulih Sadar pada Pasien Pediatrik yang Menjalani Anestesi Umum di Rumah Sakit Dr. Hasan Sadikin Bandung. *Jurnal Anestesi*

- Perioperatif*, 3(2), 100–109.  
<https://doi.org/10.15851/jap.v3n2.576>
- Elizabeth, C. (2009). *Pathophysiology*. EGC.
- Fitriani, A., Ismayanti, I., Jayantika, G. P., & Nurwahidah, S. (2021). Murottal Qur'an to Lower Anxiety Rate on Pre- Operative Patients. *International Journal of Nursing and Health Services (IJNHS)*, 4(4), 447–457.
- Gwinnutt, C. L. (2011). *Catatan Kuliah Anestesi Klinis*. EGC.
- Jitowiyono, S., & Cristiyanasari, W. (2010). *Post Operations Nursing Care*. Graha Science.
- Nurzallah, A. P. (2015). *Pengaruh pemberian Terapi Musik Klasik Mozart Terhadap Waktu Pulih Sadar Pasien Kanker Payudara dengan Anestesi General*.
- Paula J. Christensen, J. W. K. (2009). *Proses Keperawatan: Aplikasi Model Konseptual*. EGC.
- Permatasari, C. Lalenoh, D., & Rahardjo. (2017). Pulih Sadar Pascaanestesi yang Tertunda. In *Jurnal Neuroanestesi Indonesia* (Vol. 6, Issue 3).  
<https://doi.org/10.24244/jni.vol6i3.48>
- Rubai, A. (2018). Pengaruh Pemberian Murottal Al-Quran Terhadap Tekanan Darah dan Frekuensi Denyut Jantung Pasien Pre Operasi di Ruang Tunggu Klien (Holding Room) Rumah Sakit Islam Sultan Agung Semarang. *Jurnal Keperawatan Universitas Muhammadiyah Semarang*, 53(9), 1–18.
- Smeltzer, S.C., & Bare, B. G. (2011). *Keperawatan Medikal Bedah*. EGC.
- Widaryati, W. (2018). Pengaruh terapi murottal Al Qur'an terhadap hemodinamik dan GCS pasien cedera kepala. *Jurnal Kebidanan Dan Keperawatan Aisyiyah*, 12(1), 77–83.  
<https://doi.org/10.31101/jkk.128>
- Elizabet, Corwin (2009). *Pathophysiology Pocket Book*. Jakarta: EGC.
- Elzaky. (2011). *The Miracle of Health*. Jakarta: Period.
- Eny Purwati (2019). Murottal Al-Qur'an Therapy Reduces Pain Intensity of Post Sectio Caesarea at Roemani Muhammadiyah Semarang Hospital. *Journal of Maternity Science Nursing*
- Jitowiyono, S., & Cristiyanasari, W. (2010). *Post Operations Nursing Care*. Yogyakarta: Graha Science.
- Kardiatun, Tuter (2015). The Effect of Murottal Al-qur'an Surat Al-fatihah Therapy on Anxiety of Preoperative Patients in Dr. Soedarso Pontianak, West Kalimantan.  
<http://litbang.stikmuhptk.ac.id/2015/08/pentuk-terapi-murottal-surah-al-fatihah-terhadap-kecemas-pasien-pre-operasi-di-rsud-dr-soedarso-pontianak-kalimantan-west>
- Maryunani, Anik (2015). *Intraoperative Nursing Care in the Surgical Room (Surgical Surgery Perioperative Care Series)*. East Jakarta: CV. Trans Info Media
- Permatasari, Endahn (2017). Delayed Conscious Recovery Post Anesthesia. <http://docplayer.info/69881823-Pulih-sadar-pascaanestesi-yang-tertunda.html>
- Stringer, Janet I. (2009). *Basic Pharmacology Concepts*. Jakarta: EGC.
- Sodikin, S. (2014). Effect of Al-Quran Reading Therapy through Audio Media on Pain Response of Post Hernia Surgery Patients in Cilacap Regional Hospital. *Al-Ershad Journal of Health*, 5 (1), 35–41. Retrieved from <http://stikesalirsyadclp.ac.id/jka/index.php/jka/article/view/8>
- Widaryati (2016). Effect of Murottal Al-Qur'an Therapy on Hemodynamics and GCS of Head Injury Patients.  
<https://ejournal.unisayogya.ac.id/ejournal/index.php/jkk/article/view/128>



