

EFFECT OF AL-QURAN MUROTTAL THERAPY ON SLEEP QUALITY OF NON-HEMORRHAGIC STROKE PATIENTS

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ABSTRACT

This study was aimed to identify the effect of Al-Quran Murottal therapy on sleep quality of non-hemorrhagic stroke patients. This was a quasi design experiment with a control group, involving 18 respondents as the result of simple randomization. Samples were divided into two groups: intervention and control, who met the inclusion and exclusion criteria. Sleep quality was measured by the Pittsburg Sleep Quality Index (PSQI). This study showed that there was a significant difference in sleep quality before and after Al-Quran Murottal therapy (p-value 0,018) even though the result was not significant in the control group (p-value 1,000). There was a significant effect of Al-Quran Murottal therapy for the sleep quality of non-hemorrhagic stroke patients.

Keywords: *Sleep Quality, Non-Hemorrhagic Stroke, Al-Quran Murottal Therapy*

Introduction

Worldwide, stroke is a significant problem for public health. Until now, stroke is categorized into three major causes of death globally. World Health Organization (WHO) reports that stroke causes 5.7 million deaths or 9.9% of total deaths in various parts of the world. Besides the problem of mortality, stroke also has an impact on the high morbidity, disability, economic impact, and social impact on patients and families (WHO, 2006)

Stroke patients can experience sleep disorders and problems. These sleep disorders can manifest in several forms depending on the specific neurological deficits that they cause. Sleep-disorder breathing (SDB), especially those of obstructive sleep apnea syndrome (OSAS) and nocturnal oxygen

desaturation, are the most common sleep disorders in acute stroke (> 50%). OSAS itself has been categorized as a risk factor for stroke, and togetherness with a stroke will increase the risk of subsequent strokes. Increased degree of severity of sleep apnea is known to be associated with an increased risk of stroke and death. Some comorbidities that coincide with sleep disorders before stroke are obesity, diabetes, coronary heart disease, and hypertension (WHO, 2006).

There have been previous studies, including Rahmawati, Sasongko P et al., who observed the effectiveness of Murottal Al Quran Therapy on sleep quality in patients with diverse health problems, but researchers have not found research that looks at the effect of Murottal Al Quran therapy on sleep quality of stroke patients, so researchers are interested to analyze the effect of Al Quran therapy on sleep quality disorders of non-hemorrhagic stroke patients at Wahidin Sudirohusodo hospital and the satellite in Makassar .

Methods

Research design

The research design used was an experimental analytic study with an open clinical trial approach. This type of research is an interventional study.

Research location

Data were collected at the outpatient unit of Wahidin Sudirohusodo Hospital Makassar and the satellite from April to June 2019.

Types and sources of data

The study population was all post-ischemic stroke patients registered at the outpatient unit of Wahidin Sudirohusodo Hospital and the satellite in April-June 2019.

Data collection techniques

Samples were obtained based on "Consecutive Sampling," ie, by taking non-hemorrhagic stroke patients who met the inclusion and exclusion criteria until the sample size was collected. Large sample of 9 people. Control group 9 people. A total sample of 18 people. The independent variable Murottal Al Qur'an. Dependent variable sleep disturbance in patients with non-hemorrhagic stroke.

Statistic Analysis

Data analysis was conducted using the help of a statistical program. Univariate data were analyzed to present each of the variables and characteristics of respondents through a frequency distribution, and central tendency. Bivariate data were analyzed to determine the relationship of

independent variables with dependent variables using the paired t-test if the data were normally distributed and the Wilcoxon test if the data were not normally distributed, as evidenced by the p-value. If the value of $p < 0.05$, then there is a significant effect, but if the value of $p > 0.05$, then there is no significant effect between the two variables.

Result

The data collection of Al Qur'an Murottal therapy research on sleep quality was carried out at Wahidin Sudirohusodo hospital and network. The sample of this study was non-hemorrhagic stroke sufferers who met the inclusion criteria. The research sample of 18 people, namely nine samples, were given Murottal Al Qur'an as an intervention group, and nine samples were observed as a control group. Murottal Al Qur'an Surah Ar Rahman, delivered by reciter Mishari Rasyid, which was given for seven consecutive days.

The study sample was non-hemorrhagic stroke sufferers who met the study inclusion and exclusion criteria. The overall data of respondents by sex and age can be seen in Table 1

Table 1. Characteristics of the sample based on gender and age in groups intervention and control group. n = 18

Characteristics		groups		Total	P-value
		Intervention	control		
Gender	Male	n	4	4	1.000
		%	44.4%	44.4%	
	Female	n	5	5	
		%	55.6%	55.6%	
Age (years)	Mean	54.11	55.22	54.67	0.655
	SD	4.62	4.24	4.34	
Total	n	9	9	18	
	%	100.0%	100.0%	100.0%	

The results showed that respondents in both groups had homogeneous sample characteristics. The average difference in sleep quality before and after treatment can be seen in Table 2.

Table 2. Differences in the quality of sleep before and after the intervention group and control (n = 18)

group		Pretest	Post-test	p-value	Deviation	p-value
Intervention	Mean	10.00	7.33	0.018	-2.67	0.009*
	DS	2.00	1.73		2.69	
Control	Mean	7.78	7.78	1.000	0.00	
	DS	4.94	4.89		0.50	

* significant (p<0.01)

Table 2 shows that there were significant differences in the average quality of sleep before and after treatment in the intervention group. It is indicated by p-value <0.05 (0.018). Whereas the control group showed no significant difference in mean before and after observation. It is indicated by the value of p> 0.05 (1.00). The statistical data shows that there is an effect of Murottal therapy on sleep quality in the form of sleep quality improvement.

Discussion

The results showed that there was an effect of Murottal Al Qur'an therapy on the sleep quality of non-hemorrhagic stroke patients, which was significant in the intervention group. It was seen at the time of the study, a decrease in PSQI scores in the intervention group, whereas PSQI scores were relatively the same in the control group. It is reinforced by the research of Sasongko et al. who looked at the effect of Murottal Al Qur 'an therapy on elderly sleep quality (Oktora, S., Purnawan, I., Achiriyati. D., 2016), and Rahmawati with the effectiveness study of Murottal QS Ar Rahman on sleep quality and hemodynamic status in chronic kidney disease patients undergoing hemodialysis (Nurani, R. D., 2018). In the results of the study, there were improvements in sleep quality in the intervention group.

Murottal is a recorded voice of the Qur'an, which is chanted by a qori (Qur'an Reader). Physically the chant contains elements of the human voice. In contrast, the human voice is an amazing healing instrument, and the most accessible tool can reduce stress hormones, activate natural endorphin hormones, increase feelings of relaxation and divert attention from fear, anxiety, tension, and improve the system the body. Thereby decreases blood pressure and slows down breathing, heart rate, pulse, and brain wave activity. A deeper or slower rate of breathing is perfect cause calm, emotional control, deeper thinking, and better metabolism (Siswantinah, 2011).

Fabien argued that "The human voice contains a special spiritual resonance and that makes this sound the most powerful healing method" (Al Kaheel, A., 2015). The sound affects the human cells,

which then transfer throughout the human body through the circulatory system. When someone listens to music, sound waves are transmitted through the outer and middle ears and then forwarded to the inner ear (cartilage, stapes to the cochlea). Basal membrane vibrations cause hair cells, and sensory receptors produce electrical signals to the auditory nerve that transmits to the brain. The resulting waves will be delivered to the auditory cortex, the primary auditory cortex which receives input from the ear and the lower auditory system through the thalamus, suppressed in the early stages of musical perception such as pitch (a frequency tone) and contour (pitch change pattern) based on melody (Weinberger, M. N., 2004).

Murottal sound that is heard in a slow tempo will vibrate the tympanic membrane, and then vibrations are transmitted until the cortical organs are changed from the conduction system to the nervous system through the acoustic nerve (N.VIII) as an electrical impulse. The electrical impulses are continued into the auditory cortex, whose hearing pathway continues to the limbic system through the limbic cortex (Ganong, W., 2012). The hearing needle in the limbic cortex continues into the hippocampus, which borders the amygdala where it is a subconscious level, then activates and controls the autonomic nerve (Guyton, A. C., Hall, J. E., 2014). The autonomic nerve has two nervous systems, namely the sympathetic and parasympathetic nerves. The sympathetic nervous system, which functions to supply the heart and slow the heart rate, while the parasympathetic nervous, vice versa. Both of these nervous systems affect relaxation or calm. Ejectors of relaxation of peace of mind, midbrain will release serotonin, enkephalin, beta-endorphin, and other substances into the circulation (Aini, D. N., Wulandari, P., Astuti, S., 2018). Serotonin functions as a neurotransmitter of pain and movement in the lower nucleus, while the movement of the upper nuclei functions as a wake-up, mood, and emotional cycle (Silverthorn, D. U., 2013).

Conclusions

The average sleep quality of the control group was better than the intervention group, and there is a significant difference in the quality of sleep before and after the Qur'an Murottal therapy in the form of improved sleep quality. Also, there are significant differences in the improvement of sleep quality between the intervention group and the control group but no significant difference in the quality of sleep before and after observation in the control group.

References

- WHO (2006). The WHO stepwise approach to stroke surveillance. Geneva.
- Okora, S., Purnawan. I., Achiriyati, D., (2016). Pengaruh Terapi Murottal Al Qur'an Terhadap Kualitas Tidur Lansia Di Unit Rehabilitasi Sosial Dewanata Cilacap. *J Keperawatan Soedirman (The Soedirman J Nursing)*.
- Nurani, R. D., (2018). Efektifitas Murottal Q.S Ar Rahman Terhadap Kualitas Tidur Dan Status Hemodinamika Pada Pasien Penyakit Ginjal Kronik Yang Menjalani Hemodialisa. *Magister Keperawatan Univ Muhammadiyah Yogyakarta*.
- Siswantinah, (2011). Pengaruh Terapi Murottal Terhadap Kecemasan Pasien Gagal Ginjal Kronik yang Dilakukan Tindakan Hemodialisa Di RSUD Kraton Kabupaten Pekalongan. *J Keperawatan*.
- Al-Kaheel, A., (2015). Pengobatan Qur'ani ; Manjurnya Berobat dengan Al-Qur'an. 1st ed. Jakarta: AMZAH.
- Weinberger, M. N., (2004). Music and the Brain. Scientific American, INC.
- Ganong, W., (2012). Buku Ajar Fisiologi Kedokteran. 22nd ed. EGC, editor. Jakarta.
- Guyton, A. C., Hall, J. E., (2014). Buku Ajar Fisiologi Kedokteran. 12th ed. Jakarta: EGC.
- Aini, D. N., Wulandari, P., Astuti, S., (2018). Pengaruh Terapi Murottal Al-Qur'an Terhadap Tekanan Darah Pada Pasien Hipertensi di Ruang Cempaka RSUD Dr. H. Soewondo Kendal. *J Ners Widya Husada Semarang*.
- Silverthorn, D. U., (2013). Fisiologi Manusia. Jakarta: EGC.