

Original Research Article

COMBINATION BENSON RELAXATION AND *MURROTAL* ALQURAN TO DECREASE ANXIETY, STRESS, AND DEPRESSION HEMODIALYSIS PATIENTS: AN EXPERIMENTAL STUDY

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Abstract

Background: Anxiety, stress and depression in hemodialysis patients often occur due to changes in lifestyle and boredom undergoing therapy. Data from the hospital 63.9% of hemodialysis clients experienced anxiety, 51.7% experienced stress, and 60.5% experienced depression.

Objectives: The purpose of this study was to determine the effect of the combination of Benson relaxation and *Murrotal* Al-Quran in hemodialysis patients at Islamic hospital

Methods: The design of the research was quasi-experiment with pre-posttest control group design. The sample of the research was 180 respondents that divided into three groups: 60 respondents in intervention group with combination of Benson relaxation and *Murrotal* Al-Quran, 60 respondents in intervention group with Benson relaxation, and 60 respondents in control group (no intervention). The intervention groups were given combination of Benson relaxation and *Murrotal* Al-Quran for 15 minutes once daily for 1 month. Research instruments using DASS (Depression Anxiety Stress Scale) to measure the anxiety, stress, and depression.

Results: The t-test analysis found that the decrease in anxiety, stress, and depression was more common in the Benson relaxation and *Murrotal* Al-Quran combination group. While the Manova test showed that there were differences in the intervention group and the control group with the strength of differences in anxiety (68.7%), stress (68.4%), and depression (58.2%).

Conclusion: Benson relaxation combination therapy with *Murrotal* Al-Quran is more effective in reducing anxiety, stress, and depression levels in hemodialysis patients. Nurses can implement this intervention in order to meet the patients' psychological needs.

Keywords: *Anxiety, Benson Relaxation, Depression, Murrotal Al-Quran, Stress*

INTRODUCTION

Patients with End State Renal Disease (ESRD) are required to undergo hemodialysis (HD) therapy or kidney replacement regularly to maintain survival (Poorgholami et al. 2015) Hemodialysis patients frequently experience the following side effects: anxiety, persistent depression, dread of dying, impotence, diminished sex desire, and difficulties retaining employment. (Smeltzer, C. S. & Bare 2014) resulting in modifications to family dynamics, socioeconomic status, psychology, and spirituality (Isroin 2017). The psychological impact caused by hemodialysis is very complex. including anxiety. stress. and depression (Ansori. 2015).

In Surabaya Islamic Hospital, the number of patients with chronic kidney disease (CKD) receiving hemodialysis therapy in 2018 was 2.551 (95.25%). Even Nevertheless, there were 3.556 more cases with CKD receiving HD therapy in 2019 than there were in 2018, an increase of 878 cases (14.1%). preliminary investigation was out at the Islamic Hospital in Surabaya. six (60%) of the ten responders to the survey expressed dissatisfaction with their lack of excitement. worry about their well-being. seem pensive. frequently experience anxiety. fatigued, making them feel unproductive. feel like a burden to the family and spend a lot of time at home, which diminishes their social interactions.

A person's environment can influence stressors, which are a variety of physiological changes that occur as a result of the body reacting to life's demands caused by threats, risks, or other triggers (Sunaryo 2013). Patients that go through a lot of stress do so because of worry brought on by their illness, complications that occur. and economic conditions during illness. In addition. the condition of the illness and continuous dependence on the treatment being undertaken will provide pressure and negative effects in the form of stressors for the patient (Syahrizal, Dendy Kharisna, and Putri 2020). Untreated

stress tends to lead to depression which actually worsens the patient's health condition. This condition is exacerbated by the Covid-19 case which is currently endemic throughout the world. Surabaya is not spared from the COVID-19 pandemic.

Management for hemodialysis patients who experience anxiety, depression, and stress can be done pharmacologically and non-pharmacologically. The combination of Benson relaxation and *Murrotal* Qur'an is one of the non-pharmacologic therapies that can be applied to reduce stress. anxiety. and depression in hemodialysis patients. Benson relaxation is the development of a combined method of relaxation with patient confidence and focuses on certain words or sentences that are repeated repeatedly. Benson relaxation is part of the development of the Self Care Theory proposed by Orem. which explains that nurses help the patient's self-care needs and act as a supportive-educative to overcome the decline in the client's quality of life. (Meawad Elsayed 2019). Benson relaxation is an effective nursing intervention. which can reduce pain and improve the quality of life of hemodialysis clients. Benson relaxation works by balancing the posterior and anterior hypothalamic areas which reduces the activity of the sympathetic nervous system and induces catecholamine secretion which causes reduced muscle tension. physiological regulation of blood pressure. regularity of breathing. pulse rate. stress-induced muscle tension. (Heshmati Far et al. 2020).

Hearing the recitation of the Koran can stimulate the parasympathetic nervous system which has the opposite effect on the sympathetic nervous system. As a result. there is a balance between the two autonomic nervous systems. This is the basic principle of the onset of the relaxation response. namely a balance between the sympathetic nervous system and the parasympathetic nervous system. In addition. in relaxed conditions there is also a super sensitivity reaction at the receptor where there is an increase in

neurotransmitter levels in the synaptic cleft. increasing levels of these neurotransmitters can reduce or decrease depression levels. (Shaaban, Daud, and Bakar 2014). Research conducted by (Abd-alrazaq et al. 2020) states that listening to the *Murrotal Al-Qur'an* is effective in reducing depressive symptoms in hemodialysis clients.

Research on the combination of benson relaxation with *Murrotal Qur'an* on levels of stress, anxiety, and depression in hemodialysis patients has so far not been available. Based on this description, the researcher is interested in examining the effect of the combination of Benson's relaxation combination with *Murrotal Qur'an* on the level of stress, anxiety, and depression in hemodialysis patients. Objectives:

Objective: to determine the effect of the combination of Benson relaxation and *Murrotal Al-Quran* on hemodialysis patients at Islamic hospital.

METHODS

Study Design

This study used a quasi-experimental research design with the untreated control group design with dependent pre-test and post-test samples.

Setting

This research was conducted in June – July 2021 at Surabaya Islamic Hospital.

Research Subject

The population in this study was all ischemic stroke patients at the Surabaya Islamic Hospital who met the inclusion (Undergoing hemodialysis < 2 years, Willing to be a respondent) and exclusion criteria of the study (Using sedative medications, Arteriovenous (AV) fistula issues, a history of hospitalization within the last three months, Previously experiencing mental health issues, having a medical history of unstable heart conditions (such as myocarditis, severe aortic stenosis, angina, congestive heart failure, and

arrhythmias that need to be treated), hearing impairment and a failing health that prevents you from taking part in this study).

Sampling technique: Sampling using a non-probability sampling technique with consecutive sampling. The sample of the research is 180 respondents. 60 respondents in intervention groups combination relaxation benson dan *Murrotal Al-Quran*. intervention groups relaxation benson and control groups.

Instruments

Research instruments using DASS (Depression Anxiety Stress Scale) which consists of questions about stress, anxiety, and depression.

Intervention

The intervention group was given a combination of relaxation benson and *Murrotal Al-Quran* (Surah Ar-Rahman) for 15 minutes once daily for 1 month. While the control group is given training on hospital procedures.

Data Analysis

The normality of the data was tested using Kolmogorov Smirnov and the data was normally distributed so that it was continued to conduct data analysis using the paired t-test for data post-test of the intervention group and the control group. And use manova test to find out the influence of each variable with p value < 0,00.

Ethical Consideration

This research has been approved by the Ethics Committee of the Jemursari Surabaya Islamic Hospital with the number 00022/KEPK-RSI JS/III/2021. This study was extracted from Magister Nursing thesis of Riska Rohmawati at Universitas Nahdlatul Ulama Surabaya.

RESULTS

Table 1. Normality and Homogeneity Test

Variable	Group	Normality	Homogeneity Test
Anxiety	Benson	0.200	0.074
	Combination	0.161	
	Control	0.052	
Stress	Benson	0.200	0.074
	Combination	0.200	
	Control	0.200	
Depression	Benson	0.200	0.650
	Combination	0.051	
	Control	0.200	

The Kolmogorov-Smirnov test was carried out on the data characteristic of the description of the research variables to assess the nature of the distribution. including the distribution of normal data or distribution of abnormal data. Tests carried out on the dependent variable showed a value of $\alpha > 0.05$ so that the distribution of the data was normal.

Table 2. Value of Anxiety, Stress, and Depression (pre-post) between Benson Relaxation group and Control Group

Variable	Benson Relaxation			Control		
	Pre test Mean \pm SD	Post test Mean \pm SD	ρ value	Pre test Mean \pm SD	Post test Mean \pm SD	ρ value
Anxiety	11.83 \pm 2.12	9.19 \pm 1.78	0.00	12.41 \pm 0.99	12.16 \pm 1.02	0.191
Stress	22.83 \pm 2.18	18.25 \pm 2.95	0.00	21.00 \pm 1.34	20.75 \pm 1.60	0.191
Depression	18.3 \pm 2.14	14.00 \pm 2.86	0.00	16.83 \pm 1.99	16.50 \pm 1.83	0.104

Based on table 2 shows the variables of anxiety, stress, and depression decreased after being given the Benson Relaxation intervention. The results of the paired t-test showed that there was a significant decrease in

anxiety (0.00), stress (0.00), and depression (0.00). After being given the intervention of anxiety, stress, and depression, a significant value was obtained < 0.05 . the hypothesis was accepted.

Table 3. Value of Anxiety, Stress, and Depression (pre-post) between Combination Group and Control Group

Variable	Combination			Control		
	Pre test Mean \pm SD	Post test Mean \pm SD	ρ value	Pre test Mean \pm SD	Post test Mean \pm SD	ρ value
Anxiety	13.58 \pm 1.37	7.58 \pm 1.16	0.00	12.41 \pm 0.99	12.16 \pm 1.02	0.191
Stress	22.33 \pm 3.17	13.66 \pm 1.30	0.00	21.00 \pm 1.34	20.75 \pm 1.60	0.191
Depression	15.58 \pm 3.09	10.00 \pm 2.29	0.00	16.83 \pm 1.99	16.50 \pm 1.83	0.104

Based on table 3 shows that the variables of anxiety, stress, and depression decreased after being given the Benson Relaxation intervention. The results of the paired t-test showed that there was a significant decrease in anxiety (0.00), stress (0.00), and depression (0.00). After being given the intervention of anxiety, stress, and depression, a significant value was obtained < 0.05 . the hypothesis was accepted.

Based on table 4 shows that the variables of anxiety, stress, and depression in the Benson relaxation group and the combination experienced a significant decrease (0.00). In the combination group. The level of anxiety, stress, and depression decreased more than in the Benson relaxation group. The difference between the reduction in Benson's relaxation intervention and the combination is anxiety (2.64), stress (4.58), and depression (4.33).

Table 4. Value of Anxiety, Stress, and Depression (pre-post) Benson Relaxation Group and Combination Group

Variable	Benson Relaxation			Combination		
	Pre test Mean ± SD	Post test Mean ± SD	ρ value	Pre test Mean ± SD	Post test Mean ± SD	ρ value
Anxiety	11.83 ± 2.12	9.19 ± 1.78	0.00	13.58 ± 1.37	7.58 ± 1.16	0.00
Stress	22.83 ± 2.18	18.25 ± 2.95	0.00	22.33 ± 3.17	13.66 ± 1.30	0.00
Depression	18.3 ± 2.14	14.00 ± 2.86	0.00	15.58 ± 3.09	10.00 ± 2.29	0.00

Based on Figure 1, it was found that the decrease in anxiety, stress, and depression was more common in the Benson Relaxation and *Murrotal* Al-Quran combination group.

Table 5, shows that based on the Multivariate Analysis of Variant analysis in the intervention and control groups for anxiety, stress and depression, ρ value = 0.00.

Previously, homogeneity was carried out, namely the Lavence test with a significance value > 0.05. This means that all variables have the same variance. The results of the manova test showed that there were differences in the intervention group and the control group with the strength of differences in anxiety (68.7%), stress (68.4%), and depression (58.2%). It was concluded that the Benson Relaxation intervention and the combination of Benson Relaxation and *Murrotal* Al-Quran affected the level of anxiety (0.00), stress (0.00), and depression (0.00).

Table 5. Manova Analysis among Groups

	Type III sum of squares	df	Mean squares	F	sig	Partial eta squared
Anxiety (post-test)	130.72	2	65.36	36.20	0.000	0.687
Stress (post-test)	309.72	2	154.86	35.69	0.000	0.684
Depression (post-test)	2578.00	2	129.00	23.01	0.000	0.582

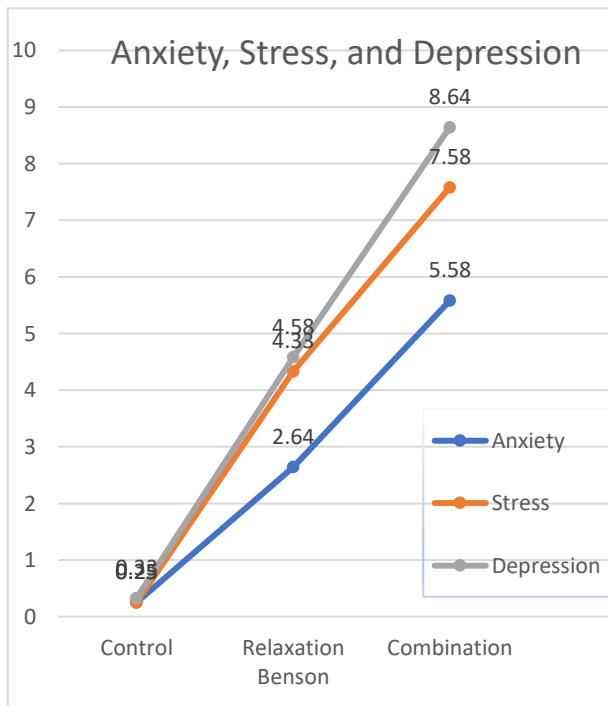


Figure 1. Diagram of Anxiety, Stress, and Depression among Groups

DISCUSSION

The results showed that the combination of Benson relaxation and *Murrotal* Al-Quran was more effective in reducing anxiety, stress, and depression levels than Benson relaxation. The combination of Benson relaxation and *Murrotal* Al-Quran is more effective in reducing anxiety levels in hemodialysis clients. Hemodialysis clients who experience psychological changes will experience anxiety. Anxiety is a sign and symptom of stress. Anxiety that lasts a long time will cause stress, prolonged stress will have an impact on depression (Black, J.M., Hawks 2014). The combination intervention of Benson relaxation and *Murrotal* Al-Quran affects the parasympathetic nerves to create a feeling of relaxation by suppressing cortisol levels so that anxiety decreases. This happens because

the first path that is passed is anxiety, thus the level of anxiety decreases.

Listening to the Koran reduces anxiety levels and improves the psychology of hemodialysis clients (Frih et al. 2017) Reading and listening to the Koran, dhikr, and prayer are more effective than relaxation to create peace of mind, because they are worship that is most in line with human nature. (Ms. Ashraf Ghiasi n.d.) *Murrotal* Al-Quran is one of the religious rituals for the people of the past which psychologically gives a feeling of being closer to Allah SWT. *Murrotal* Al-Quran, dhikr, and prayer are Islamic relaxation techniques that cause a relaxation response and feelings of happiness.

Relaxation accompanied by *Murrotal* Al-Quran lowers the pulse rate 6 times/minute, while relaxation alone only lowers the pulse rate 2 to 4 times/minute. Relaxation accompanied by *Murrotal* Al-Quran is able to affect the limbic system as the center of emotion and regulation of the autonomic system, besides that it is also able to influence the coping mechanisms that a person has (Abd-alrazaq et al. 2020). *Murrotal* is able to stimulate the parasympathetic nervous system which has the opposite effect with the sympathetic nervous system. So that there is a balance in the two autonomic nervous systems (Heshmati Far et al. 2020). This is the basic principle of the onset of the relaxation response, which is a balance between the sympathetic nervous system and the parasympathetic nervous system (Asiyah and Istikhomah 2019). The effects of *Murrotal* and remembrance, among others, can reduce the anxiety of hemodialysis clients. In addition, the Qur'an also has an influence that is able to relax the tension in the nerves. This fact is precisely recorded in a computer-supported electronic detector system to measure any changes in the body's physiology (organs) (Heshmati Far et al. 2020).

CONCLUSION

Benson relaxation combination therapy with *Murrotal* Al-Quran is more effective in reducing anxiety, stress, and depression levels in hemodialysis patients.

SUGGESTIONS

The greater a person's beliefs mixed with the relaxation response, the stronger the relaxation effect obtained. Nurses can implement this intervention in meeting psychological needs.

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DECLARATION OF CONFLICTING INTEREST

There is no conflict of interest in this article.

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AUTHOR CONTRIBUTION

Riska Rohmawati: Main author, preparing the concept and design, and revisited the manuscript.

Ratna Yunita Sari: The principal investigators of the study, preparing the concept and design, revisited the manuscript and critically evaluated the intellectual contents.

Imamatul Faizah: the principal investigators of the study, preparing the concept and design, revisited the manuscript and critically evaluated the intellectual contents.

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