

ORIGINAL ARTICLE

The Effect of Benson Relaxation Combination Therapy and Lavender Aromatherapy on Anxiety in Patients Undergoing Hemodialysis

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ABSTRACT

Introduction: Anxiety levels in patients with CKD tend to be fixed, so it is necessary to implement an effective, efficient, and simple approach to reduce their anxiety. Therapy using relaxation methods is able to create a supportive inner atmosphere. The supporting therapy is lavender aromatherapy which is able to create a feeling of comfort.

Objectives: The purpose of this study was to determine the effect of the use of Benson relaxation combination therapy and aromatherapy on anxiety in patients undergoing hemodialysis treatment.

Methods: The method of this research is a quasi experiment with pretest-posttest in one group. In this study, one group of subjects was given a questionnaire to measure anxiety levels before and after the Benson relaxation therapy intervention and aromatherapy. The questionnaire used to measure anxiety is the Hamilton Anxiety Rating Scale questionnaire.

Results: The results of data analysis showed that there was a decrease in anxiety in patients with pre-test data (n=18; 85.7%), mild anxiety and moderate anxiety (n=3; 14.3%). As for the post test data, the majority were not anxious (n=20; 95.2%) and mildly anxious (n=1; 4.8%).

Conclusions: It can be concluded that there is an effect of combination therapy of benson relaxation and lavender aromatherapy on the anxiety of patients undergoing hemodialysis with a p value of 0.001.

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1. Introduction

Patients diagnosed with chronic kidney failure need to undergo hemodialysis therapy 2 to 3 times per week. A person who experiences chronic kidney failure gets slower and slower his kidney function, the patient's condition also gets worse if hemodialysis therapy is not carried out regularly (Pace & Kirk, 2021). Hemodialysis, also known as a dialysis procedure, is a therapy given to individuals suffering from chronic kidney disease (Huda Al Husna et al., 2021). This therapy is used to maintain the patient's quality of life because it is not curative. Hemodialysis therapy in patients with chronic kidney failure also has a negative impact on the patient's psychology (Budhiana et al., 2024).

The number of new patients was recorded at 55% of new male patients and the remaining 45% were female patients (IRR, 2020). Data from the Indonesia Renal Registry/IRR (2020) states that there are 61,786 new patients and 130,931 patients are actively undergoing hemodialysis.

Data from Riskesdas (2018) also states that the number of patients with chronic kidney failure in East Java Province reached 113,045 people.

Anxiety levels in patients with CKD tend to be fixed, so it is necessary to implement an effective, efficient, and simple approach to reduce their anxiety. One method that has proven effective in managing anxiety is through the application of relaxation techniques (Mardhalena et al., 2024). Therapy using respiratory relaxation methods by involving individual beliefs, can help create an inner atmosphere that supports patients in their efforts to achieve higher standards of health and well-being (Mulyadi, 2023).

The supportive therapy or complementary therapy that can be given is aromatherapy. Lavender aromatherapy contains linalool and linalyl acetate, compounds that have calming and relaxing properties. This can create a feeling of comfort and improve focus and concentration. Lavender oil is also effective in reducing stress and managing insomnia, improving mood, reducing anxiety, increasing alertness, and providing the desired relaxation effect (Firooz et al., 2024). By combining relaxation therapy and complementary therapy, it is hoped that the combination therapy is useful in reducing the level of anxiety felt in people suffering from chronic kidney failure during hemodialysis sessions, as well as reducing the frequency of complications that occur.

2. Methods

Research design is a series of research processes in conducting the research. Research design using quasy ekspreiment with pretest-posttest. The research methodology used is design quasy experiment with pretest-posttest in one group. In this study, one group of subjects was treated by measuring anxiety levels before and after the intervention in the form of Benson relaxation therapy and aromatherapy.

The population taken for this study was patients undergoing hemodialysis procedures at Wava Husada Kepanjen Hospital, with a total of 192 patients. A total of 21 respondents in this study met the research inclusion criteria. This study uses an accidental sampling technique. This research was conducted from September to November 2024.

The 21 respondents were given a combination therapy of benson relaxation and lavender aromatherapy which was carried out for 2 weeks with a period of 2 times a week. At one time the intervention was given for 10 minutes which was divided into 2 sessions, namely every 5 minutes. Benson relaxation begins at the same time as inhaling lavender aromatherapy using cotton as the medium with 2-3 drops. Then the respondent exhaled while reciting the sentence Subhanallah, which was repeated for 5 minutes. In the second session, the next 5 minutes, the respondent repeats the intervention until the specified time has been completed.

Questionnaires are generally used in quantitative research. Assessment of anxiety levels in patients undergoing hemodialysis was carried out using questionnaires. HARS (Hamilton Anxiety Rating Scale) is the questionnaire that is applied. The questionnaire included questions about behavior when anxiety arises, and signs of good or bad symptoms when patients experience anxiety. This questionnaire has 14 questions, with the answers and scores given as follows: (0) no symptoms, (1) mild symptoms, (2) moderate symptoms, (3) severe symptoms, and (4) very severe symptoms. HARS questionnaire scores can range from not anxious (0-13), mild anxiety (14-20), moderate anxiety (21-27), severe anxiety (28-41), very severe anxiety (42-56). It has been verified for reliability and validity with a Cronbach's Alpha value of 0.793, which indicates proven reliability with a value of >0.6. With the latest data, validity tests were obtained on 14 items with the results of all valid questions and with reliability results on the Cronbach's Alpha value of 0.910 (>0.6).

In this study, univariate and bivariate analysis was used. Univariate analysis is used to perform statistical calculations such as mean, median, mode, and others. Bivariate analysis is a method to explore the relationship between two variables simultaneously, specifically to test the

relationship between independent and dependent variables. This technique is useful in identifying the influence of one variable on another as well as for testing research hypotheses. In this study, the interval data scale on the dependent variable does not have a normal distribution, so the non-parametric test is used, namely the Wilcoxon Signed Rank Test.

This study applies research ethics which include informed consent sheets, anonymity, confidentiality, and ethical tests have been carried out at KEPK, Faculty of Health Sciences UMM with certificate number (NO. E.4.d/084/KEPK/FIKES-UMM/X/2024).

3. Results and Discussion

Based on table 1, most respondents in this study were at the age of 51-60 years with a percentage of 27.3% in the total sample (n = 21). In gender demographics, most respondents were female (n=14; 63.6%) and male respondents (n=7; 31.8) with the last education of the majority of junior high school and high school graduates who had the same number (n=9; 40.9%). Then patients based on the length of time underwent the most hemodialysis in the range of 1-5 years with the number (n=9; 40.9%)

Table 1 Distribution of Respondent Demographic Characteristics

Variable	(n)	(%)	
Age	21-30 years old	2	9,1
	31-40 years old	5	22,7
	41-50 years old	5	22,7
	51-60 years old	6	27,3
	61-70 years old	1	4,5
	>70 years	2	9,1
Gender	Man	7	31,8
	Woman	14	63,6
Education	No School	1	4,5
	Elementary	2	9,1
	School Graduation		
Last	Graduated from junior high school	9	40,9
	High School Graduation	9	40,9
	Graduated from College	0	0,0
Long Duration HD	<1 year	4	18,2
	1-5 years	9	40,9
	6-10 years	5	22,7
	>10 years	3	13,6
	Total	21	100

Based on table 2, it shows that the anxiety of patients who undergo hemodialysis before receiving combination therapy of benson relaxation and lavender aromatherapy tends to experience anxiety with mild anxiety levels (n=18; 85.7%) and moderate anxiety (n=3; 14.3%).

Table 2. Results of Patients' Anxiety Levels Before Being Given Combination Therapy of Benson Relaxation and Lavender Aromatherapy

Anxiety Level	Pre Intervention	
	N	%
No Anxiety	0	0,00%
Mild Anxiety	18	85,7%
Moderate Anxiety	3	14,3%
Severe Anxiety	0	0,00%
Very Severe Anxiety	0	0,00%
Total	21	100%

Table 3 show the results of the respondents' anxiety scores after receiving the combination therapy of benson relaxation and lavender aromatherapy, the level of anxiety decreased, namely not anxious as much as (n=20; 95.2%) and mild anxiety (n=1; 4.8%).

Table 3. Results of Patients' Anxiety Levels After Being Given Combination Therapy of Benson Relaxation and Lavender Aromatherapy

Anxiety Level	Post Intervention	
	N	%
No Anxiety	20	95,2%
Mild Anxiety	1	4,8%
Moderate Anxiety	0	0,00%
Severe Anxiety	0	0,00%
Very Severe Anxiety	0	0,00%
Total	21	100%

Based on table 4, it shows the average, standard deviation, minimum, and maximum values of each data group, namely pre and Post. Based on the results in the table, the average anxiety of patients before combination therapy was carried out was 17.24. Then for the maximum value of 25 and the minimum is 14 in 21 total samples. In the table results for patient anxiety after the intervention, the average score was 5.95. This suggests that there is a decrease in anxiety in patients undergoing hemodialysis.

Table 4. Results of Patients' Anxiety Levels After Being Given Combination Therapy of Benson Relaxation and Lavender Aromatherapy

	N	Mean	Std. Deviation	Maximum	Minimum
Patient anxiety before the intervention	21	17,24	3,254	25	14
Patient anxiety after the intervention	21	5,95	3,485	16	1

Based on the results of the Wilcoxon test above, the results show that after being given a combination therapy of benson relaxation and lavender aromatherapy, most of the respondents experienced a significant decrease in anxiety. It can be proven by the result of p value 0.001 (p value <0.05).

Table 5. Wilcoxon Test Results Effect of Benson Relaxation Combination Therapy and Lavender Aromatherapy on Anxiety in Patients Undergoing Hemodialysis

	Pretest-Posttest HARS
<i>Asymp sig. (2-tailed)</i>	0,001

The figure is a graph of anxiety reduction in respondents with the HALS questionnaire. Results were obtained with the majority experiencing a decrease in anxiety after being given a combination therapy of benson relaxation and lavender aromatherapy.

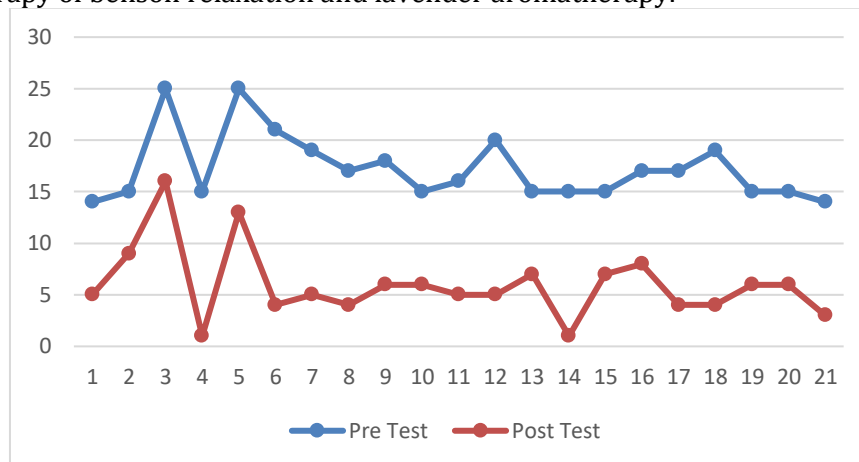


Figure 1. HARS Pre Test and Post Test Decline Chart

Based on the results of the study, factors that can affect anxiety include age, gender, last education, and length of hemodialysis. Based on internal factors, one of which is age, most patients who experience anxiety are middle-aged who will reach the advanced stage. People of adult age have a higher likelihood of experiencing anxiety due to many psychosocial problems such as loneliness, feelings of sadness, and others (Damanik, 2020).

Another factor is gender, where most chronic kidney failure patients who experience anxiety are female. In general, men more often use a logical approach in dealing with problems, in contrast to women who tend to be more sensitive to feelings (Damanik, 2020). Based on the last level of education, most respondents graduated from junior high school and high school. The higher a person's education level, the higher their knowledge, so they know the prognosis of the disease they suffer from so that it can cause anxiety (Yang et al., 2021). The results of the study showed that the duration of undergoing hemodialysis was 1-5 years of anxiety. The most patients feel anxious when undergoing hemodialysis procedures and concerns increasingly arise when seeing fellow patients undergoing hemodialysis first called by God (Wulandari et al., 2020).

The results of this study showed a decrease in anxiety in respondents after being given a combination therapy of benson relaxation and lavender aromatherapy (Mulyadi, 2023). It showed that there was an effect of benson relaxation combination therapy and lavender aromatherapy on the anxiety of patients undergoing hemodialysis. This can happen because benson relaxation is a combination of relaxation and philosophical beliefs embraced by the patient himself, phrases that are spoken repeatedly using regular rhythms evoke a sense of comfort and relaxation in the patient (Mardhalena et al., 2024).

Which is combined with aromatherapy with the inhalation method. Lavender aromatherapy contains linalool and linalyl acetate, compounds that have calming and relaxing properties, so they can create a feeling of comfort and improve focus and concentration. The use of lavender oil has been shown to be effective in reducing stress, addressing insomnia, improving mood, reducing anxiety, and increasing alertness, while providing a significant relaxing effect (Firooz et al., 2024).

With regular and precise breathing exercises, the body can achieve a higher level of relaxation, reduce tension associated with anxiety as well as reduce feelings of threat. Through increased levels of enkephalin and endorphins, patients will experience a greater sense of security and relaxation (Prajayanti & Sari, 2020; Rohmah et al., 2021). When the respondent took a slow breath, at that moment they inhaled the aromatherapy given. Inhaling aromatherapy oil vapors is believed to be an immediate and effective method of healing. This is because the volatile essential oil molecules react quickly on the olfactory organs and are immediately recognized by the brain (Firooz et al., 2024). In this study, the combination of relaxation therapy and complementary therapy is useful and has a better impact in reducing the level of anxiety felt in people suffering from chronic kidney failure during hemodialysis sessions, as well as reducing the frequency of complications that occur.

4. Conclusion

In this study, it can be concluded that most respondents who experienced mild anxiety experienced a decrease in anxiety to become less anxious. This can be proven that there is an effect of benson relaxation combination therapy and lavender aromatherapy on the anxiety of patients undergoing hemodialysis. The results of this study are expected to be used as a reference for health service institutions in providing non-pharmacological therapy in the form of combination therapy of benson relaxation and lavender aromatherapy to hemodialysis patients who experience anxiety at Wava Husada Hospital and other level I health service facilities.

Ethics approval and consent to participate.

This research has received approval from the Research Ethics Commission of Faculty of Health Sciences UMM, number E.4.d/084/KEPK/FIKES-UMM/X/2024. All participants in this study were provided with both verbal and written explanations regarding the study. The researcher ensured that the patients understood their participation was voluntary and informed them that they could withdraw at any time without any impact on their health. All information was kept confidential, and the study's results were presented for academic purposes only.

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