

# The Influence Of Giving Benson Relaxation Therapy On Stress Levels In Kidney Failure Patients Undergoing Hemodialysis At Banjarmasin Islam Hospital In 2021

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## ABSTRACT

Chronic Renal Failure (CKD) is a progressive decline in kidney tissue function so that the remaining kidney mass is no longer able to maintain the body's internal environment. Dialysis maintenance includes two main things: hemodialysis (HD) and peritoneal dialysis (PD). As the disease progresses to requiring dialysis, the patient begins to experience several losses: kidney function, leading roles in the family and work, physical function and mobility, tolerance to activities, etc. Hemodialysis takes toxic nitrogenous substances from the patient's blood to the dialyzer to filter and remove toxic metabolic wastes in the body that the kidneys should remove. There are three principles underlying hemodialysis work: diffusion, osmosis, and ultrafiltration. This study aims to determine the effect of Benson relaxation therapy on stress levels in patients with kidney failure undergoing hemodialysis.

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## 1. INTRODUCTION

Chronic Renal Failure (CKD) is a progressive decline in kidney tissue function so that the remaining kidney mass is no longer able to maintain the body's internal environment. Dialysis maintenance includes two main things: hemodialysis (HD) and peritoneal dialysis (PD). As the disease progresses to the point of requiring dialysis, the patient begins to experience several losses: kidney function, major roles in the family and work, physical function and mobility, tolerance for activities, etc. (Semaan, Noureddine, & Farhood, 2018, Lestari 2022 ).

Hemodialysis takes toxic nitrogenous substances from the patient's blood to the dialyzer to filter and remove toxic metabolic wastes in the body that the kidneys should remove. There are three principles underlying hemodialysis work: diffusion, osmosis, and ultrafiltration (Vika and Sulis, 2013). Hemodialysis can prevent death but cannot cure chronic kidney failure, causing patients to comply with hemodialysis therapy. Compliance with hemodialysis therapy is very important because if the patient is not compliant, there will be a buildup of harmful substances from the body resulting from metabolism in the blood (Sumah, 2020).

Based on WHO 2013, chronic kidney failure patients worldwide who are undergoing hemodialysis therapy are estimated to be around 1.4 million people, with an incidence of 8% growth per year (Sagala and Sitompul, 2019).

From 2013-2017 there was an increase in patients with chronic kidney failure undergoing hemodialysis. In 2013 there were 15,128 new patients and 9,396 active patients undergoing hemodialysis. In 2014 there were 17,193 new patients and 11,689 active patients. In 2015 there were 21,050 new patients and 30,554 active patients undergoing hemodialysis. In 2016 there were 25,446 new patients and 52,835 active patients undergoing hemodialysis, and in 2017 there was another increase of 30,831 new patients and 77,892 active patients undergoing hemodialysis. Based on data from the Indonesian Renal Registry (IIR, 2017), the prevalence of CKD increased by 0.38% according to basic health research (Risksda, 2018)

South Kalimantan Province suffers from chronic kidney failure in as many as 11,068 patients (RI Ministry of Health, 2018). Based on data from the South Kalimantan Provincial Health Office for chronic kidney failure in Banjarmasin in 2017, there were 404 cases and an increase in 2018 to 907 cases (South Kalimantan Provincial Health Office, 2018).

One of the interventions that can be done to deal with stress is by carrying out nursing interventions independently; namely, the relaxation technique was first proposed by Dr. Herbert Benson (1976). He has found that meditation regulates physiological changes in response to the fight-or-flight response, including decreased oxygen consumption, heart rate, respiratory rate, and blood lactate. Nursing treatment with this technique will reduce the endocrine effects of chronic stress (Craven and Hirnie, 2000; Xu Yu, 2004 Ekowati, 2008). Relaxation training can lead to calm and relaxation, where brain waves begin to slow, calming a person calm and comfortable (Dewi, 2014 in Zed, 2017).

Benson relaxation is a relaxation technique that is simple, easy to implement, and doesn't require a lot of money. This relaxation combines relaxation response techniques with individual belief systems or faith factors. This relaxation focuses on certain phrases that are repeated using a regular rhythm accompanied by a resigned attitude. The expressions used can be in the form of God's names or words that have a calming meaning for the patient himself (Kosasih et al. in Atmojo 2019).

Based on the description above, the researcher is interested in conducting research with the title "The Effect of Giving Benson Relaxation Therapy on Stress Levels in Patients with Kidney Failure Undergoing Hemodialysis at Banjarmasin Islamic Hospital in 2021

## 2. METHODS

The design used in this study is the Quasi Experiment group pretest-posttest design. In this study, the researchers conducted an experimental design in which two groups were randomly selected. The population in the study were patients undergoing hemodialysis at an Islamic hospital in 2021 June 2021. Samples were kidney failure patients undergoing hemodialysis, totaling 30 respondents for the intervention group and 30 respondents for the control group. The sampling technique with purposive sampling met the inclusion and exclusion criteria. This research will be conducted at the Banjarmasin Islamic Hospital October-December 2021.

## 3. RESULTS AND DISCUSSION

### 1. Univariate analysis

**Table 1.**

Frequency distribution of stress levels in patients with kidney failure undergoing hemodialysis at the Banjarmasin Islamic Hospital before being given Benson relaxation therapy

No	Depression Rate	F	%
1	Light Stress	20	74.1
2	Moderate Stress	10	25.9
3	Heavy Stress	0	0
	Amount	27	100

In the first training, Benson's relaxation therapy showed changes in stress levels. Respondents who experienced mild stress levels were 20 respondents (74.1%), moderate stress ten respondents (25.9%), and no severe stress.

**Table 2.**

Frequency distribution of stress levels in patients with kidney failure undergoing hemodialysis at the Banjarmasin Islamic Hospital before being given Benson relaxation therapy

No	Depression Rate	F	%
1	NoStress	6	14.8

2	Light Stress	21	77.8
3	Moderate Stress	3	7.4
4	Heavy Stress	0	0
	Amount	27	100

Then at the second relaxation therapy training meeting, Benson showed changes in stress levels. Respondents who were not stressed increased to 6 respondents (14.8%), the number of mild stress was 21 respondents (77.8%), and the number of respondents who experienced moderate stress was three respondents (7.4%).

**Table 3.**

Frequency distribution of stress levels in patients with kidney failure undergoing hemodialysis at the Banjarmasin Islamic Hospital after being given Benson relaxation therapy

No	Depression Rate	F	%
1	No stress	6	11.1
2	Light Stress	24	88.9
3	Moderate Stress	0	0
4	Heavy Stress	0	0
	Amount	30	100

In the third training, Benson's relaxation therapy also showed changes in stress levels; namely, there were no more respondents who experienced moderate stress, and almost all respondents had mild stress, namely 24 respondents (88.9%) and respondents who were not stressed to 6 respondents (11.1%)

## 2. Bivariate Analysis

**Table 4.**

Cross-tabulation between stress levels before and after the Benson relaxation therapy treatment in patients with kidney failure undergoing hemodialysis at the Banjarmasin Islamic Hospital in 2021

No	Benson Relaxation Therapy	Depression				Total			
		Not		Light		Moderate/Severe			
		F	%	F	%	F	%		
1	Before	0	0	22	74.1	8	25.9	27	100
2	After	24	88.9	6	11.1	0	0	30	100

*Wilcoxon Signed Rank Test p = 0.000*

Table 4 above shows a statistically significant change before and after being given Benson relaxation therapy on stress levels in patients with kidney failure undergoing hemodialysis. Before being given Benson relaxation, there were no respondents who were not stressed or 0%, and after being given Benson relaxation, most of the respondents became not stressed, amounting to 24 respondents (88.9%). This shows that there is a significant effect of Benson relaxation therapy. Before being given Benson relaxation, most respondents were mild stress respondents, totaling 22 respondents (74.1%). After being given Benson relaxation, the number of respondents who experienced mild stress became six respondents (11.1%). The rest were moderate depression before being given Benson relaxation therapy totaling eight respondents (25.9%), and after being given Benson relaxation therapy, there were no moderate depression respondents or 0%. This shows Benson's relaxation therapy had a big difference or influence on the level of depression in the elderly.

And the results of the Wilcoxon Signed Rank Test obtained  $p = 0.000$  with  $\alpha = 0.05$ . Hence,  $p < \alpha$  means that  $H_0$  is rejected and  $H_a$  is accepted. In conclusion, Benson's relaxation therapy affects stress levels in patients with kidney failure undergoing hemodialysis at the Banjarmasin Islamic Hospital.

Based on the results of research on the effect of giving Benson relaxation therapy on stress levels in patients with kidney failure undergoing hemodialysis at Banjarmasin Islamic Hospital, totaling 27 respondents, the results obtained were 24 people (88.9%) were not stressed, and six people were mildly stressed (11.1%).

Stress affects many aspects of human life. In the cognitive aspect, stress causes disturbances in cognitive function by reducing or increasing attention to something. In the emotional aspect, stress can cause fear which is a common reaction when individuals feel threatened, causing feelings of sadness and depression and triggering feelings of anger, especially when individuals experience situations that are dangerous or frustrating (Greenberg, 2012).

In this study, after using the Benson relaxation technique, 24 people (88.9%) were not stressed after being given the Benson relaxation technique in patients with kidney failure undergoing hemodialysis. This is because some clients with kidney failure who undergo hemodialysis have undergone hemodialysis for a long time. Some patients feel used to all the changes that occur within them. Although sometimes, complications from kidney failure often make patients experience various problems, and if coping mechanisms are not good at responding to stress, it will impact their stress levels. This research is supported by research (Rahayu, 2018) for patients experiencing mild stress; these patients are used to accepting their situation so that the existing stressors respond positively.

The results showed that six people (17.5%) experienced mild stress. The results of this study are supported by research (Rahayu, 2018) proving that stress arises when a person adjusts to an event or situation. Two factors result in situations or events causing stress, namely those related to the individual himself and those related to the situation experienced by the individual. Situations or events related to the individual can be certain environmental conditions that damage tissues in the body, such as heat / excessive cold, injury, or illness. The state of illness causes demands on the individual's biological and psychological systems. The degree of stress due to these demands depends on the disease's seriousness and the individual's age. The longer the patient undergoes the hemodialysis process, the more adaptive the patient's coping mechanisms will be. Patients who have long suffered from Chronic Kidney Failure have a lot of experience with various stressors, so patients can easily adapt to these conditions.

#### 4. Conclusion

Based on the results of research that has been carried out by Benson relaxation in patients with kidney failure undergoing hemodialysis at the Banjarmasin Islamic Hospital with a total of 30 respondents, the following conclusions can be drawn The stress level of kidney failure patients undergoing hemodialysis after being given the Benson relaxation technique was in the Normal Stress Level category, namely 24 people (88.9%), Mild stress levels as many as six people (11.1%) There is a relationship between giving Benson relaxation therapy, and stress levels in patients with kidney failure undergoing hemodialysis at the Islamic Hospital of Banjarmasin, with the results of the Wilcoxon Signed Rank Test showing  $p = 0.000$  with  $\alpha = 0.05$ , so  $p < \alpha$  means  $H_0$  is rejected and  $H_a$  received.

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