

Spiritual Benson Relaxation in Reducing Stress in Patients Undergoing Hemodialysis

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ABSTRACT

Background: Patients with chronic kidney failure experience various changes in their lives, starting from their diet, exercise, blood sugar control, urea, creatinine and renal function replacement therapy that must be carried out throughout their lives, causing long stress for the patient.

Purpose: The purpose of this study was to analyze the effect of Spiritual Benson Relaxation on reducing stress in patients undergoing hemodialysis.

Methods: This research design uses *quasi-experimental* approach with a *pre and post control group design*. The population of all patients with chronic kidney failure who underwent dialysis in the Hemodialysis unit of the Surabaya Islamic Hospital A. Yani was 70 people. The sample size is 32 respondents. The sampling technique is *purposive sampling*. The intervention group was given *Spiritual Benson Relaxation* and the control group were given intervention according to hospital standards. The analysis used the *Wilcoxon* with a significant value of < 0.05 .

Results: The results showed that the stress level *p value* 0.001 in the intervention group and the control group *p value* 0.035 which means that there is an effect of Spiritual Benson Relaxation on reducing stress in patients undergoing hemodialysis.

Conclusion: Spiritual Benson Relaxation is effective in reducing stress in patients undergoing hemodialysis and the technique is easy to do.

Keywords: benson relaxation, hemodialysis, spiritual, stress

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BACKGROUND

Kidney failure is a clinical condition characterized by *irreversible* or irreversible decline in kidney function, at a certain degree requiring permanent kidney replacement therapy in the form of dialysis or kidney transplantation (Nursalam et al., 2020). Patients with chronic kidney failure experience various changes in their lives, starting from their diet, exercise, blood sugar control, urea, creatinine and hemodialysis therapy that must be carried out throughout their lives, causing long stress for the patient. The patient said that the stress he experienced was due to seeing the tubes that were flowing with blood, the costs that had to be incurred each time he underwent therapy, the stress of being stabbed, and the uncertainty of healing.

At the beginning of hemodialysis, the patient's response seemed to be unable to accept the loss of kidney function, angry with the events, feeling sad, stressed, depressed, and wanting to try to commit suicide with the events he experienced, thus requiring a long adjustment to the environment. who are new and must undergo hemodialysis at least twice a week. This becomes a physical stressor that affects various dimensions of the patient's life which includes biology, psychology, social and spiritual which can lead patients to stress, anxiety and even depression.

The prevalence of chronic kidney failure in the world reaches 661,648 people and is a global health threat. Study Results (Anisah & Maliya, 2021) As many as 83% of hemodialysis patients experience stress. Data *Indonesian Renal Registry/ IRR* (2018) states that there are 66,443 chronic kidney failure patients who are actively undergoing hemodialysis therapy. Riskesdas data (2018) states that patients with chronic kidney failure in the East Java Province at 5 years reached 113,045 people.

Patients with chronic renal failure who undergo hemodialysis therapy for a long time will feel stress caused by situational crises, threats. This makes hemodialysis patients susceptible to protracted stress. The psychological consequences felt by patients often need special attention by doctors and nurses. In general, treatment in hospitals is focused on recovering physical conditions but must pay attention to the patient's psychological conditions such as anxiety, stress and depression (Alfikrie et al., 2020). The results of the study (Ramadhan & Nurhayati, 2018) stated that patients with chronic kidney failure are very susceptible to suffering from psychological disorders, namely stress. Where stress is an individual's response in general to the demands on the body. The demand is the necessity to adapt and therefore the balance of the body is disturbed. Stress will begin with an alert reaction to a threat that is marked by automatic body processes, in this case the result of chronic kidney failure. The consequences that arise when chronic kidney disease patients experience stress include aggressiveness, frustration, nervousness, boredom, loneliness, drinking alcohol, smoking, overeating, sexual deviations, weak thinking power, unable to make decisions, not concentrating, increased pressure blood pressure, heart rate and blood sugar (Nursalam et al., 2020). Coping with stress can be done by means of pharmacological therapy/drugs or non-pharmacological interventions. One of the interventions in dealing with stress can use Spiritual Benson Relaxation.

METHODS

Quantitative research using a *quasi-experimental* with a *pre- and post-test control group design*. Independent Variable Spiritual Benson Relaxation and the dependent variable is stress. The sampling technique used in this research is *purposive sampling*. The number of respondents is 34 people. The research was conducted at RSI Surabaya A. Yani. The study was conducted in April-May 2022. The statistical test of the research results used the *Wilcoxon test*.

RESULTS

The research results obtained by the researchers are as follows:

Table 1. Distribution of respondents' age, gender, education and occupation

Data Characteristics	Interventions		Control	
	n	%	n	%
Gender				
Male	10	62.5%	9	56.3%
Female	6	37.5%	7	47.8 %
Total	16	100 %	16	100 %
Age				
Adult (18-40 years)	3	18.8%	1	6.3%
Middle Adult (41-60 years)	11	68.8%	14	67 ,5 %
Elderly adults (>60 years)	2	12,5 %	1	6,3 %
Total	16	100 %	16	100 %
Education				
Elementary school	-	-	-	-
Junior high school	1	6,3 %	6	37.5%
Senior High School	9	56,3 %	6	37.5%
College	6	37.5%	4	25 %
Total	16	100 %	16	100 %
Employment				
Working	5	31.3 %	4	25 %
Not working	11	68.8 %	12	75 %
Total	16	100 %	16	100 %

Based on Table 1. The gender of the respondents was mostly male in the intervention group 62.5% and gender in the control group 56.3%. Most of the respondents in the intervention group were middle adults (41-60), namely 68.8% and 67.5% in the control group. The education level of the respondents in the intervention group was mostly high school (56.3%) and in the control group, almost half of the respondents (37.5%) were junior high and high school educated. In the intervention group most (68.8%) did not work and in the control group (75%) respondents did not work.

Table 2. Distribution of stress level analysis of patients undergoing hemodialysis at the Surabaya Islamic Hospital A. Yani before and after being given spiritual-based Benson relaxation in the intervention and control groups

	<i>Pre</i>		<i>Post</i>		<i>Wilcoxon Test</i>
	Frequency (f)	%	Frequency (f)	%	
Intervention					
No Stress	-	-	10	62,5 %	<i>p</i> value = 0.001
Mild Stress	2	12,5 %	4	25 %	
Moderate Stress	4	25 %	2	12,5 %	
Severe Stress	8	50 %	-	-	
Very Severe Stress	2	12.5%	-	-	
Total	16	100 %	16		
100 %					

Control					
No Stress	-	-	-	-	
Mild Stress	2	12.5%	8	50 %	ρ value = 0.035
Moderate Stress	6	37.5%	-	-	
Severe Stress	6	37.5%	7	43.8%	
Very Severe Stress	2	12.5b%	1	6.3%	
Total	16	100 %	16	100 %	

Based on table 2. above shows that before being given spiritual-based Benson relaxation, the respondent failed chronic kidney disease half of the respondents (50%) in the intervention group experienced severe stress and after being given the intervention most (62.5%) were not stressed/normal. In the control group before being given the intervention, almost half (37.5%) experienced moderate and severe stress and after being given the intervention, severe stress increased to (43.8%).

Based on the results of statistical tests using Wilcoxon *Signed Ranks Test* value = 0.001 in the intervention group and in the control group 0.035 then the hypothesis is accepted, meaning that there is a spiritual effect of Benson relaxation on reducing stress in patients undergoing hemodialysis.

DISCUSSION

Stress levels of patients undergoing hemodialysis before being given Spiritual Benson Relaxation

The results of the study before being given spiritual benzene relaxation showed that half of the respondents (50%) in the intervention group experienced severe stress and in the control group before being given the intervention almost half (37.5%)) experienced moderate stress and almost half (37.5%) had severe stress. This is because the patient has only taken hemodialysis several times so that he is stressed seeing the tubes that are flowing with blood, the costs that must be incurred each time he undergoes therapy, the stress of being stabbed, the patient still does not accept the fact that hemodialysis therapy will be carried out for the rest of his life and the uncertainty of recovery.

This is in line with research (Ramadhan & Nurhayati, 2018) which states from the results of the study it is known that patients with chronic kidney failure who undergo hemodialysis experience stress with a small percentage who do not experience stress, namely 7 people (17%), almost half of them have mild stress. people (31%), almost half of them were under moderate stress 14 people (33%), and a small part of severe stress was 8 people (19%). It is also supported by the results of a literature *review* journal by (Tarigan, 2020) which states that Chronic Kidney Failure Patients undergoing hemodialysis experience stress and anxiety. It is also supported by research (Lemba et al., 2020) showing that, of the 60 respondents of chronic kidney failure patients undergoing hemodialysis, there were 4 patients (6.7%) in the non-stress category, while 4 patients (6.7%) in the non-stress category. mild stress, 38 patients (63.3%) in the moderate stress category, 12 patients (20.0%) in the severe stress category, and only 2 patients (3.3%) in the very severe stress category. There are 38 patients (63.3%) in the category of moderate stress.

Stress is a physical and psychological reaction to any demands that cause tension and disrupt the stability of daily life (Iswari, 2019). Stress is the body's response to the surrounding environment, so it can become a self-defense system that can protect us (Syahrizal et al., 2020).

Stress is a condition or state of the body that is disturbed due to psychological pressure and stress is usually associated with psychological diseases. However, it is more because a person's mental problems then result in physical illnesses that can arise due to weakness and low body resistance in stressful conditions (Safitri et al., 2017).

Stress affects many aspects of human life, especially patients with chronic kidney failure undergoing hemodialysis. In the cognitive aspect, stress causes disturbances in cognitive function by decreasing or increasing attention to something. In the emotional aspect, stress can cause fear which is a common reaction when individuals feel threatened, creates feelings of sadness or depression, and triggers anger, especially when individuals experience situations that are dangerous or frustrating (Sumarsih et al., 2019). Stress is a phenomenon that affects all dimensions in a person's life, whether physical, emotional, intellectual, social and spiritual (Yunitasari et al., 2020). People who experience stress will experience muscle tension, decreased endurance, nervousness, difficulty sleeping, nausea and so on. This will indirectly affect a person's life satisfaction which will also have an impact on that person's quality of life (Tarigan, 2020).

Most of the respondents experienced moderate stress due to hemodialysis. According to the researchers, chronic kidney failure patients undergoing hemodialysis experience stress because some have undergone hemodialysis for a long time so that some patients are used to all the changes that occur in themselves, although sometimes complications from chronic kidney failure often make patients experience various problems and problems. If the patient's coping mechanism is not good in responding to stressors, it will have an impact on the patient's stress level. Stress arises when a person makes adjustments to an event or situation. There are two factors that cause a situation or event to cause stress, namely those related to the individual itself and those related to the situation experienced by the individual. Situations or events related to individuals can be in the form of certain conditions in the environment that damage tissues in the body, such as excessive heat / cold, injury or disease. The state of illness causes the emergence of demands on the individual's biological and psychological systems, where the degree of stress that will arise due to these demands depends on the seriousness of the disease and the age of the individual. Meanwhile, those related to situations experienced by individuals can be in the form of increasing family members, divorce, death in the family, work and environmental conditions (Rahayu et al., 2018).

Chronic kidney failure patients undergoing hemodialysis experience stress, this is because patients feel anxious because chronic kidney failure cannot be cured and must experience various complications, both physical and mental. Life, not to mention the economic aspect because patients have to incur transportation costs, and cannot work as usual when undergoing hemodialysis, so that they experience tension, anxiety, stress and depression that are different for each individual which has a negative impact on their quality of life and health (Mahyuvi, 2021).

Stress level of Chronic Kidney Failure Patients undergoing Hemodialysis after being given Spiritual Benson Relaxation

The results of the study after being given spiritual benson relaxation showed that patients with chronic kidney failure in the intervention group were mostly (62.5%) not stressed/normal and in the control group severe stress increased to (62.5%) 43,8%. Based on the results of the research above, it proves that there is a change in the stress of patients with chronic kidney failure, before and after being given spiritual-based Benson relaxation. The above is supported by research (Ningsih et al., 2018) which states that spiritual therapy can reduce stress levels in patients with chronic kidney failure undergoing hemodialysis. It is also

supported by the results of research (Aprilliam & Abdillah, 2021) which states that Benson relaxation can reduce stress levels.

Spirituality is one way to minimize stress that acts as a positive psychological factor (free from stress and anxiety) through the functional limbic system that can lead to positive coping mechanisms (Wisnusakti, 2018). Spirituality can significantly assist patients in adapting to changes caused by chronic kidney disease. Spiritual intervention is believed to reduce stress optimally because it can be carried out independently, anytime and anywhere, is inexpensive and non-toxic (Yusuf et al., 2020). The relationship between man and the Creator is the first element in spirituality. Getting closer to God is a coping strategy that is most often used by patients to cope with the stress of chronic kidney failure patients.

According to the researcher, nurses in this study used it as a stimulus to reduce stress, through a spiritual-based Benson relaxation method. Benson's spiritual-based relaxation technique is a technique that is easy to do because the patient only needs to take a deep breath and then exhale accompanied by saying a word or sentence formula that is believed by the respondent so that it can increase comfort and reduce stress levels. This spiritual-based Benson relaxation technique can be done independently or guided by health workers or families. When a person feels anxious, the body's system will work extra by increasing the sympathetic nervous system in response to stress. After being given spiritual-based relaxation, Benson will inhibit sympathetic nerve activity which can reduce oxygen consumption by the body and then the muscles of the body become relaxed, causing a feeling of calm and comfort (Otaghi et al., 2016; Suwardianto, 2021).

Spiritual benson relaxation that is carried out will stimulate the brain area, namely the *prefrontal cortex* which is the center of emotion regulation and judgment to instruct emotional reactions which then the body will respond by feeling accepting and non-judgmental, while the *hippocampus* and *amygdala* areas for regulating emotions as well as areas of openness, suppression, and reinforcement that will provide instructions to open up more so that individuals are able to disengage themselves in awareness, refrain from internal reactivity and be able to increase self-acceptance so as to reduce stress, not only physically, psychologically, socially but also mentally healthy spiritual (Vijayanti, 2019). Humans as whole creatures respond to conditions that occur due to health problems, and have coping mechanisms to adapt to environmental changes, so that individuals always interact by using positive and negative coping (Ningsih et al., 2018).

During the Benson spiritual relaxation process, chronic kidney failure patients will feel calm, increase their level and love for themselves, there is an attachment to spirituality, increased awareness of health and self-care and surrender to God Almighty so that the patient's stress level decreases and even becomes less stressed. or normal.

Benson Relaxation Spiritual Effect Analysis on reducing stress in patients undergoing hemodialysis

Based on the results of statistical tests using Wilcoxon *Signed Ranks Test* value = 0.001 in the intervention group and in the control group 0.035 then the hypothesis is accepted, meaning that there is a spiritual benson relaxation on reducing stress in patients undergoing hemodialysis.

Spiritual Benson Relaxation is a relaxation technique that can relax the mind and body through a process that will progressively release muscle tension in each body with deep breaths while saying in the heart sentences of motivation, gratitude and resignation. Benson's spiritual-based relaxation was carried out as many as 2 interventions in 1 week before the patient underwent hemodialysis therapy.

These sentences want to regulate emotions by decreasing the activation of the amygdala, then the stimulus is sent to the prefrontal cortex in the form of a learning process (a careful learning process through the process of selection, organization, and interpretation of the stressor it receives) will then produce a change in self-perspective in the form of awareness to take wisdom and self-acceptance to the conditions experienced at this time. Awareness in taking wisdom and self-acceptance will increase tolerance to stress and reduce muscle tension which will then change the individual's spiritual cognitive and emotional response, as a result, it can reduce *Corticotropin Releasing Factor (CRF)*. Furthermore, *CRF* stimulates the *pituitary gland* to secrete or release endorphins as neurotransmitters that affect the mood to relax, maintain positive emotions, namely self-acceptance, increased confidence and motivation to stay healthy. This will lead to positive effects, including an increase in concentration, body and mind awareness. This situation will also increase the patient's self-awareness of the current situation, so that the patient can accept his condition without criticizing or blaming himself and his environment. Furthermore, it will increase motivation for health and a feeling of well-being in chronic kidney failure patients undergoing hemodialysis therapy. Patients who have been able to accept their situation feel more comfortable and relaxed, so that they can reduce patient stress and stabilize the body's hemodynamics.

CONCLUSION

1. Before being given Spiritual Benson Relaxation of patients undergoing hemodialysis half of the respondents in the intervention group and almost half of the control group experienced severe stress
2. After being given Spiritual Benson Relaxation patients undergoing hemodialysis in the intervention group were mostly not stressed and in the control group almost half experienced severe stress.
3. There is an effect of Spiritual Benson Relaxation on reducing stress in patients undergoing hemodialysis.

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