

A Combined Therapy Between Benson's and Warm-Water-Foot Techniques: The Effect Towards Fatigue on Chronic- Kidney-Failure Patients in the Hemodialysis Room

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ABSTRACT

Kidney is an important organ that functions to maintain blood composition by preventing the accumulation of waste and controlling fluid balance in the body. A Hemodialysis is a blood replacement therapy used on a kidney performed for 4-5 hours 2-3 times a week with the aim of removing the waste products of protein metabolism, correcting fluid and electrolyte balance disorders. The length of time undergoing hemodialysis therapy is generally: it will cause physical stress, the patient will feel fatigue, headaches and cold sweat due to decreased blood pressure, due to the effects of hemodialysis. Fatigue is one of the most common symptoms experienced when doing hemodialysis therapy and can interfere with a person's activities, therefore, it requires non-pharmacological treatment, namely warm-water-foot soak and Benson therapy. Benson relaxation is the development of a relaxation respondent method that involves patient belief factors, which can create an internal environment so that it can help patients achieve higher health and well-being. This research is a quantitative type with a quasi-experimental design using a pretest-posttest design without control group. Samples were taken using purposive sampling with the number of respondents 17 people. Using the Wilcoxon test for warm and Benson foot bath therapy. Combination therapy Benson Warm Water Foot Soak (p-value 0.000). There is a significant effect on the therapy of foot bath in warm water and Benson on reducing fatigue. So that it can be applied as one of the nursing interventions for fatigue therapy in patients undergoing hemodialysis.

Keywords: Chronic kidney disease, Hemodialysis, Fatigue, Warm Water Foot, Benson.

1. INTRODUCTION

The kidneys are important organs that function to maintain blood composition. Chronic kidney disease (CKD) is a public health problem [1]. According to WHO data in 2017, the global incidence of kidney failure is more than 500 million people and 1.5 million people who have to live dependent on dialysis

(hemodialysis). Chronic kidney failure ranks ninth of the 15 leading causes of death in the United States in 2015 [2]. Based on data from the Centers for Disease Control and Prevention (CDC) in 2017, it is estimated that 15% of adults in the United States have chronic kidney failure, which is about 30 million people. According to the data center of the Indonesian Ministry of Health, the number based on IRR

data from 249 renal units that reported, there were 30,554 active patients undergoing dialysis. In Central Java, patients with kidney failure rank number three with 2,192 patients [3].

Fatigue is a common symptom that occurs in patients undergoing hemodialysis [4]. Several studies have shown that 71.0% to 92.2% of patients experience fatigue and that fatigue is the most important condition to be observed in patients with chronic kidney disease [2]. Non-pharmacological treatment can be done by changing a healthier lifestyle and doing foot soak therapy using warm water that can be done any time. The effect of soaking the foot in warm water is the same as walking bare foot for 30 minutes [5].

Benson relaxation is the development of a relaxation respondent method that involves patient belief factors, which can create an internal environment so that it can help patients achieve higher health and well-being. [6] The Benson relaxation technique is a natural healing technique and is part of a holistic self-care strategy to deal with various complaints such as fatigue, pain, sleep disturbances, stress and anxiety. The results of a preliminary study conducted at the Sultan Agung Islamic Hospital in Semarang obtained data from 120 patients. Based on the result of interviews from 20 patients, it was found that 5 of the patients experienced fatigue. They experienced deep breaths and some of them easily fell to sleep.

2. METHOD

This study used a quasi-experiment design with a pre-post test in one group (One-group pre-post test). The population in this study were chronic kidney failure patients at the Sultan Agung Islamic Hospital in Semarang. The sample of this study was 15 people according to the minimum experimental criteria, and anticipation of dropping out of 2 people so that the total sample was 17 people. Using nonprobability sampling (purposive sampling) with inclusion criteria 1) renal failure patients under hemodialysis therapy 2) patients who are willing to become respondents by signing the informed consent, and exclusion criteria 1) respondents who are pregnant in the third trimester 2) respondents who have leg ulcers 3) respondents who have physical weakness.

This research was conducted in December 2019- January 2020 at Sultan Agung Islamic Hospital Semarang. The study used a FSS (Fatigue Saverty Scale) instrument that had been tested for reliability and validity with Cronbach alpha 0.841, univariate analysis included respondent characteristics: age, gender, education and duration of hemodialysis therapy, fatigue before and after the Benson therapy group and warm water foot soak, bivariate analysis was carried out by conducting normality test with Sapiro Wilk, and Wilcoxon testing to determine fatigue before and after the intervention was given.

3. RESULTS

3.1. Characteristics of respondents

Table 1. Characteristics of Respondents

Variables	Frequency	Percentage
Age		
26-35	4	23,5%
36-45	4	23,5%
46-55	5	29,4%
56-65	4	23,5%
>65	4	23,5%
Gender		
Female	5	29,4%
Male	12	70,6%
Pendidikan		
SD	5	29,4%
SMP	7	41,2%
SMA	3	17,6%

S1	2	11,8%
The Length Of Time Hemodialysis		
< 2 Years	3	17,6%
>2 Years	14	82,4%
Total	17	100%

The results showed that the average age was 46-5 years as many as 6 respondents or 29.4% of all respondents. 11 respondents or 73.3% of all respondents. The average education level of junior high school was 6 respondents or 40.0%

of the total respondents who had undergone hemodialysis therapy on average 82.4% or as many as 14 people over 2 years from 17 respondents or 100% of the total respondents.

3.2. Normality test

Table 2. Normality Test

Intervention	P -Value	N
Before	0,029	17
After	0,029	17

Combination therapy of warm water foot soak and benson before and after given showed abnormal results. based on the test data, this data is tested using the Wilxocon test.

Test analysis of the effect of Benson combination therapy and warm water foot baths and before and after the intervention

Table 3. Test Analysis

	N	Median (Minimum-maximum)	Mean±s.b	P
Before Intervention	17	1,51 (1,48-1,54)	1,5148±0,02387	
After Intervention	17	1,56 (1,56-1,59)	1,5709±0,00968	0,000

The results showed that Benson on fatigue with the result p value = 0.000 (<0.05) means that there is a significant effect of combination therapy with benson and warm water foot soaking on fatigue.

3. DISCUSSION

The results showed that the average age was 46-5 years as many as 6 respondents or 29.4% of all respondents. along with increasing age resulted in decreased organ function followed by pathology or Chronic Kidney Disease (CKD) which resulted in physical sufferers. From the results of gender, it was found that male respondents were 11 respondents or 73.3% of all respondents. When viewed from gender to the level of fatigue it was found that

the level of women's fatigue was higher than that of men. This is because women often talk about the diseases and problems they experience so they easily experience fatigue .[7] The average junior high school education level is 6 respondents or 40.0% of the total respondents Knowledge is a very important domain in shaping a person's actions. The higher a person's education level, he will tend to behave positively because the education obtained can lay the foundations for understanding (understanding) and behavior in a person. The average length of time undergoing hemodialysis therapy was 17 respondents or 100% of the total respondents. The decrease in fatigue levels can also be seen from patient characteristics such as

length of time undergoing hemodialysis. Significance compared to the length of hemodialysis in the susceptible years, the decrease was not so significant. Based on the research conducted, it was found that the effect of combination therapy of foot bath in warm water and Benson on fatigue in patients with kidney failure in the hemodialysis room. This therapy aims to increase blood flow to the feet. Hydrotherapy or warm water foot soak is scientifically warm water has a physiological impact on the body. Firstly, warm water makes blood circulation smooth. Soaking your feet in hot water can heat the whole body, increase blood circulation to the upper part and suppress circulation.

5. CONCLUSION

In general, the results of this study found that there was an effect of Benson Relaxation on the fatigue level of HD patients with changes in fatigue scores after the fifth treatment. Benson Relaxation is proven safe, without side effects, and easy to do.

CONFLICT OF INTEREST

No conflicts of interest have been declared.

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