

(CASE REPORT)



## Application of Benson therapy to sleep quality of chronic kidney disease (CKD) patients

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### Abstract

**Introduction:** CKD currently has priority as a major health problem in the world community. In patients with Chronic Kidney Failure, a common complaint that is often felt is sleep pattern disturbances. The quality of sleep of CRF patients is caused by stress and depression. Stress and depression occur a lot in CRF patients. The patient's poor sleep quality can affect daily activities. Sleep quality is a person's satisfaction with sleep such as the ability to stay asleep, ease to stay asleep without medical assistance.

**Objective:** To improve sleep quality of patients with chronic renal failure.

**Methods:** This research design uses a case study research design, this case study is a case study to explore the application of Benson therapy, patients are carried out Benson therapy for 10-15 minutes twice a day. This case study was conducted on October 2-October 14, 2023 in the HCU room of RSUD dr. Moewardi Surakarta by taking 2 patients with medical diagnoses of CKD with complaints of sleep difficulties.

**Results:** There was an improvement in sleep quality in both patients after Benson's therapy.

**Conclusion:** The effect of breath relaxation in Benson therapy for 10-15 minutes can improve the quality of sleep of CKD patients who are carried out 2 times a day for 3 consecutive days.

**Keywords :** Benson therapy; Chronic kidney disease; Chronic renal failure; Sleep quality; Quality of sleep

### 1. Introduction

Chronic Kidney Failure (CRF) is a condition where the kidneys experience structural abnormalities or a decrease in *Glomerular Filtration Rate* (GFR) less than 260 ml for 3 months (*Kidney Disease*). Chronic Kidney Disease is progressive and Irreversible, in advanced conditions can-not recover (1). In patients with Chronic Kidney, if kidney function has greatly decreased marked by a Glomerular Filtration Column (LFF) < 15ml/Minute/1.73m<sup>2</sup> then this is called Chronic Renal Failure (2). The patient begins to feel noticeable symptoms and signs of uremia when the glomerular filtration rate is less than 30%. The prevalence of CKD increases along with the increasing number of elderly population and the incidence of diabetes mellitus and hypertension. Chronic kidney failure disease amounted to 13.4%, the prevalence of the Asian continent, especially Asia Landmark, in each country experienced an increase of 66% or about 2.9 million of the total population (3). CKD can also be caused by harmful agents such as lead, cadmium, mercury, and chromium. Dialysis or kidney transplantation is necessary for the patient's survival (1). Chronic kidney disease, increasing globally. This disease is the leading cause of death and disability in patients. Therefore, health workers should focus more on this disease (4).

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CKD currently has priority as a major health problem in the world community. According to the Global Burden of Disease Study by Katherine et al (2015) CKD was ranked 27th as a cause of death worldwide in 1990, the ranking rose to 18th place in 2010 (5). This shows an increase in the number of CKD sufferers in the last 2 decades (6). The prevalence of kidney failure in the United States in 2014 increased from 2013 by 50%, as many as 200,000 Americans undergo hemodialysis therapy each year due to CRF. The prevalence of CRF in Indonesia based on data from Basic Health Research in 2018 also shows an increase every year. Based on the diagnosis of doctors in Indonesia by 0.38% or 3.8 per 1000 population. The highest prevalence in the North Kalimantan region was 0.64%, then for the West Java region of 0.48% or 131,846 people. Based on sex, the prevalence of kidney failure in men (0.42%) is higher than in women (0.35%) (7). Based on age characteristics, the highest prevalence of age is 65-74 (0.82%). Based on education strata, the prevalence of kidney failure is highest in people who have never been to school (0.57%). Meanwhile, based on people living in rural and urban areas, respectively (0.38%) (8).

In patients with Chronic Renal Failure, a common complaint that is often felt is disruption of sleep patterns. Poor sleep quality was experienced by CRF patients (9) and it was reported that 75.5% of CRF patients experienced poor sleep quality (10). The quality of sleep of CRF patients is caused by stress and depression. Stress and depression are prevalent in CRF patients (11). The patient's poor sleep quality can affect daily activities. Sleep quality is a person's satisfaction with sleep such as the ability to stay asleep, ease to stay asleep without medical assistance. Sleep quality encompasses several aspects of a person's habits, including sleep quantity, sleep attention, sleep efficiency, and sleep disturbances. Decreased sleep quality is associated with feelings of anxiety, depression, anger, fatigue, confusion and daytime sleepiness (12).

Benson's therapy is a treatment technique to relieve pain, insomnia (unable to sleep) or anxiety. This method of treatment is part of spiritual medicine. This technique is an attempt to focus attention on a focus by repeatedly mentioning ritual sentences and eliminating distracting thoughts (13). Benson's relaxation technique is one of the options to improve sleep quality because Benson's relaxation technique is easy to do, and does not require costs and side effects (14). Pharmacological measures can improve sleep quality, but excessive action can affect health. Safe non-pharmacological therapies effective for improving sleep quality through relaxation techniques are preventive measures that can help the body regenerate every day (15).

Based on the results of research conducted by Kemohu Maria Rinda et al, (2023) stated that Benson therapy can improve sleep quality and make patients more relaxed (12). According to observations in the HCU room of RSUD dr. Moewardi Surakarta from October 2 to November 14, 2023, there were 2 CKD patients with complaints of difficulty sleeping. This Benson therapy treatment technique can be done 10-15 minutes, twice a day so as to improve the quality of sleep patients. Management that can be done to overcome sleep disorders in patients with chronic renal failure consists of pharmacological and nonpharmacological management. One of the nonpharmacological management to overcome sleep disorders is with relaxation techniques. One of the relaxation techniques used is Benson's relaxation (16). The goal of Benson's therapy is to improve sleep quality in patients with chronic renal failure. The goal of Benson's therapy is to improve the quality of sleep in patients with chronic renal failure. Based on the case above, researchers are interested in applying the results of research on the effect of Benson therapy to improve sleep quality in CKD patients in the HCU room of RSUD dr. Moewardi Surakarta.

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## 2. Method

This research design uses a case study research design, this case study is a case study to explore the application of Benson therapy, patients are carried out Benson therapy for 10-15 minutes twice a day. This case study was conducted on October 2-October 14, 2023 in the HCU room of RSUD dr. Moewardi Surakarta by taking 2 patients with medical diagnoses of CKD with complaints of sleep difficulties. The focus of this study was to improve sleep quality in patients with chronic renal failure. The criteria for sample inclusion are CKD patients. For exclusion criteria, patients refuse to be sampled.

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## 3. Results and discussion

After reviewing and collecting data on patients in the HCU room of RSUD dr. Moewardi Surakarta, 2 patients were obtained according to the criteria for inclusion and exclusion of researchers. Patients with CKD have difficulty sleeping and are willing to be given Benson's therapy. Patients are carried out Benson therapy and deep breath relaxation for 10-15 minutes, this therapy is carried out 2 times a day for 3 consecutive days. The 73-year-old Mr. P patient was treated in the HCU room of RSUD dr. Moewardi Surakarta on September 30, 2023 with complaints of shortness of breath and aggravation since 1 day ago, there was edeme in both grade 1 legs, difficulty sleeping. The patient looks weak,

composmentis awareness with GCS 14 E4V5M6, the patient is attached to NRM ventilation mode 15 lpm, vital signs TD: 211/125 mmHg, HR: 92x/min, RR: 25x/min, SpO<sub>2</sub>: 95%, NRM 15 lpm, S: 36.5C. Supporting examinations on October 3, 2023 obtained ureal results of 102 mg/dL, Creatinine 10.6 mg/dL, Hemoglobin 11 g/dl.

Patient Mr. L aged 65 years was treated in the HCU room of RSUD dr. Moewardi Surakarta on September 29, 2023 with complaints of weakness, difficulty sleeping and focusing, composmentis awareness with GCS 13 E4V5M5, patients installed NRM 10 lpm, heard ronchi sounds in the right lung field. Vital signs result: TD: 145/90 mmHg, HR: 100x/min, RR: 10x/min, S: 36.5C. Hemoglobin support examination 10.2 g / dL, Ureum 254 mg / dL, creatinine 13.2 mg / dL.

The implementation of nursing given to Mr. P and Mr. L on the first day of Benson therapy, patients are able to follow the instructions of breath relaxation in Benson therapy for 10-15 minutes. The evaluation results of Mr. L and Mr. P said that shortness of breath is slightly reduced, feeling a little more relaxed, sometimes still a little difficult to sleep, less anxiety, less breathing sounds. Implementation of day 2 on Mr. P and Mr. L breath relaxation therapy in benson therapy for 10 minutes. The results of Mr. P's evaluation said that anxiety has decreased, more relaxed than before, sleep quality has also improved, the patient's breathing has begun to improve. Mr. L said he was able to sleep but sometimes still felt anxious, ronchi's voice began to decline.

Implementation day 3 on October 5, 2023. Patients are able to follow the instructions for breath relaxation in Benson therapy with the results of the evaluation of Mr. P and Mr. L said they feel much more relaxed and calm, shortness of breath has been reduced, and no longer have trouble sleeping, the body feels more comfortable after Benson therapy. After studying, collecting data and applying Benson therapy to CKD patients in the HCU room of RSUD dr. Moewardi obtained the results of Mr. P's patients before therapy had difficulty sleeping, breathing tightness, and the body felt weak, after therapy for 3 days Mr. P felt more relaxed, sleep quality improved, shortness of breath reduced. Mr. L before Benson therapy experienced complaints of weakness, difficulty sleeping and focusing and heard the sound of ronchi breathing, after Benson therapy Mr. L felt more relieved breath, improved sleep quality, and the body felt more relaxed.

Based on the theory, the clinical manifestations of CKD patients are usually, tightness, cough and swollen legs, weight loss, low back pain, excessive thirst, dizziness, and sleep disturbances (12). Based on the above case, it can be concluded that there is an improvement in sleep quality from day to day in CKD patients to Benson's therapy. In accordance with the results of a study conducted by Kemohu Maria Rinda et al, 2023 which states that Benson's therapy has proven significant in improving the quality of sleep of CKD patients (12). The results of a case study conducted at RSUD dr. Moewardi Surakarta found that after Benson therapy intervention for 10-15 minutes 2 times a day for 3 days, sleep quality improved in CKD patients.

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#### **4. Conclusion**

The effect of breath relaxation in Benson therapy for 10-15 minutes can improve the quality of sleep of CKD patients who are done 2 times a day for 3 consecutive days. This is supported by research by Kemohu Maria Rinda et al, 2023 that the application of Benson therapy provides a relaxing effect on CKD patients and improves sleep quality, so as to reduce the chance of dependence on treatment side effects.

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#### **Compliance with ethical standards**

##### *Disclosure of conflict of interest*

The author has no conflict of interest in this research.

##### *Statement of ethical approval*

Prospective Participants are invited to participate in this research. All participants received an explanation regarding the purpose of this study, namely to examine effect of benson therapy to improve sleep quality of patients with chronic renal failure. Informed consent was obtained from each participant before the study. Participants are allowed to withdraw from this study at any time.

##### *Statement of informed consent*

Prospective Participants were invited and oriented on the purpose of this study, namely to examine effect of Application of Benson Therapy to Sleep Quality of Chronic Kidney Disease (CKD) Patients. Informed consent was obtained before the study and the participants were allowed to withdraw at any time.

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