

Nursing Care With Back Massage Therapy in Overcoming Fatigue in Chronic Kidney Disease (CKD) Patients

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ABSTRACT

Chronic kidney failure is a disorder of the structure or function of the kidneys that is damaged. Patients must receive Renal Replacement Therapy, one of which is hemodialysis. Hemodialysis needs to be done routinely by patients 1-3 times a week and takes about 4-5 hours in each session. One of the side effects that often occurs in hemodialysis patients is fatigue. Fatigue can be overcome with non-pharmacological therapy, namely back massage. The purpose of this study was to determine how researchers can provide nursing care by providing back massage therapy to overcome fatigue in Chronic Kidney Disease patients. This case study was conducted with a pretest-posttest design using the FAS questionnaire. The results of the study were conducted for 3 days, where on the first day before being given a back massage it was in the category of severe fatigue and after being given a back massage on the third day the results were in the category of moderate fatigue. Where the patient said his body felt more relaxed and did not feel tired, felt there was energy. It can be concluded that providing back massage therapy can reduce fatigue in Chronic Kidney Disease patients undergoing hemodialysis.

Keywords: *Chronic Kidney Disease, Back Massage, Hemodialysis*

INTRODUCTION

Chronic kidney disease is a disorder of the structure or function of the kidneys that is damaged. Kidney failure has an impact on health and requires one of two criteria interpreted for more than 3 months where the glomerular filtration rate (GFR) is $<60 \text{ ml/min/1.73 m}^2$ or markers of kidney damage including albuminuria (KDIGO 2024). Based on data from the 2018 basic health research (Riskesdas) the number of chronic kidney failure patients in Indonesia was 713,783 people and in the province of North Sumatra, the number of chronic kidney patients reached 45,792 people. Of that number, the number of men diagnosed was 22,703 people while the number of women reached 23,269 people (Riskesdas, 2018).

Chronic kidney failure can be caused by various factors and often more than one factor plays a role in the occurrence of this condition, namely, hypertension is the highest risk factor, followed by diabetes mellitus, coronary heart disease, polycystic kidneys, ureter stones,

kidney stones, bladder stones, cervical cancer 1 and benign prostatic hypertrophy (Suara et al., 2024).

Hemodialysis is a form of therapy that aims to replace the role of the kidneys using a specially designed device to relieve symptoms and signs caused by low GFR. The goal of this therapy is to extend the life expectancy of patients with chronic kidney failure and improve their quality of life (Manurung et al., 2023). Hemodialysis procedures need to be carried out routinely by patients 1 to 3 times a week and take about 4 to 5 hours in each session. One of the adverse effects that often appear in hemodialysis patients is fatigue. Untreated fatigue in patients with chronic kidney failure (CKF) undergoing hemodialysis can cause symptoms such as low blood pressure, weakness, muscle cramps, nausea, vomiting, and dizziness (Wahyudi & Rantung, 2024).

The impact that can occur due to the length of hemodialysis therapy can cause patients to experience a lack of energy and fatigue. Fatigue can be overcome with non-pharmacological therapy, namely back massage. After back massage therapy, the client feels calmer and more relaxed so the application of back massage is effective in reducing fatigue in CKD patients undergoing hemodialysis (Sulingga et al., 2024). According to research conducted by Nanda (2023), back massage intervention was carried out for 15 minutes, once in a three-day period using a measuring instrument, namely the Fatigue Severity Scale (FES) questionnaire, where the results of the study showed that the fatigue scores in both subjects decreased.

Supported by research by Ambarwati (2024), after back massage therapy using the Fatigue Severity Scale (FSS) questionnaire, the level of fatigue at the first and second meetings decreased and on the third day, the respondents no longer experienced fatigue. It can be concluded that the application of back massage therapy has proven effective in reducing the level of fatigue in patients undergoing Hemodialysis. Strengthened by research by Erna (2024) The results of the study showed that during 2 meetings before being given back massage therapy, the level of fatigue at the first meeting was severe and the second meeting was mild. After being given back massage therapy, the level of fatigue at the first and second meetings decreased and was in the mild category.

The difference in research conducted by researchers is that researchers use the fatigue assessment scale (FAS) questionnaire, the duration of back massage is 10 minutes, sampling, and research location. Based on the existing phenomenon of carrying out nursing care in the hemodialysis room at RSU. Royal Prima Medan, the prevalence of CKD patients who experience fatigue during hemodialysis, the researcher is interested in providing "Nursing Care With Back Massage Therapy Inovercoming Fatigue In Chronic Kidney Disease (CKD) Patients".

METHODS

This type of case study uses a nursing care approach to chronic kidney failure patients who experience fatigue by providing back massage. This case study was conducted by examining a problem through a case using a pretest-posttest design using the FAS questionnaire. The presentation of case study data is presented in narrative and table form. Data in narrative form is an assessment conducted on respondents after intervention, implementation, and evaluation in chronic kidney failure patients. Researchers use quantitative data analysis methods, namely the results of numbers before and after the application of back massage to fatigue in chronic kidney failure patients.

RESULTS

Assessment

Assessment is a systematic data collection process that aims to determine the patient's current and previous health and functional status and to determine the patient's current and previous response patterns. The assessment was conducted on Saturday, May 17, 2025, with a medical diagnosis of CKD, from the assessment of Mrs. R. the main complaints were found, namely the patient said pain in the head area, dizziness, the patient's face grimace in pain a pain scale of 4, feeling tired, not enough energy and feeling no energy after undergoing hemodialysis, decreased appetite since being sick, feeling nauseous and the patient said she was uncomfortable with the room temperature being too cold.

The patient said he had a history of controlled diabetes mellitus since 11 years ago. The patient underwent HD approximately 2 years ago with a period of 2 times a week on Wednesday and Saturday. The patient said he had been hospitalized because of DM which he suffered for 5 days and his family said they had a history of DM but no family members had the same disease as the patient. On physical examination, the general condition was found to be comphos menthis, the patient's face looked grimaced in pain, weak, and looked exhausted. TTV results: BP 156/87 mmHg, RR 21 x / m, HR 90 x / m, TB 160 cm, BB before illness 42 kg and after illness 36 kg. The results of laboratory tests showed Hb levels of 7.5 g / dl.

Diagnosis

Nursing diagnosis is a clinical evaluation of an individual's, family's, and community's experiences or reactions to health problems related to health risks or in dealing with life processes. (Baringbing, 2020). Nursing diagnosis is based on subjective data and objective data, namely:

- a. Fatigue due to physiological conditions
- b. Acute pain due to physiological injury agents
- c. Nutritional Deficit due to inadequate nutrient intake

Intervention

- a. Fatigue due to physiological conditions

Nursing action plan for chronic kidney failure with fatigue problems due to physiological conditions, researchers carry out nursing actions for 3 x 24 hours, it is expected that...The ability to perform routine activities increases, energy increases and verbalization of fatigue decreases the planned interventions, the implementation carried out on the patient monitors physical and emotional fatigue, provides a comfortable and low-stimulus environment, facilitates sitting at the edge of the bed, if unable to move or walk, and provide back massage therapy.

Techniques to relax the body are one of the methods applied in treatment to help patients with heart failure who feel tired so that they can carry out light activities. One method that is commonly used is back massage therapy. (Maharani et al., 2024).

- b. Acute pain due to physiological injury agents

The second nursing action plan is acute pain due to physiological injury agents, the researcher carries out nursing actions for 3x24 hours in the hope that complaints of pain decrease, grimace down, and descend from planned interventions that are carried out on patients are: identification of the location of pain, identification of the pain scale,

identification of factors that aggravate and alleviate pain, providing non-pharmacological techniques to reduce pain, controlling the environment that aggravates pain.

c. Nutritional Deficit due to inadequate nutrient intake

The third nursing action plan is nutritional deficit due to inadequate nutritional intake. The researcher carried out nursing actions for 3x24 hours. It is hoped that the portion of food consumed increases, and weight gain from planned interventions that are carried out on patients are: identify nutritional status, monitor food intake, recommend eating little but often, weight monitor, and perform oral hygiene before eating.

Implementation

a. Fatigue due to physiological conditions

Implementation of nursing actions for the main diagnosis, namely fatigue due to physiological conditions, began on Wednesday, May 21, 2025, by carrying out therapy. *Back massage* in the stage of explaining the purpose and procedure of back massage with the results of the patient saying that he understood the explanation and agreed with the action, identifying contraindications with the results of the examination showing that there were no contraindications for massage, monitoring the pre-test fatigue score with the results of the patient saying that his body felt tired, had no energy, and energy did not recover post-dialysis, score test 37, applying back massage action with the result of providing back massage application, monitoring post-test fatigue score with the result: patient said fatigue was reduced, with a score of 30, facilitate sitting on the side of the bed, if unable to move or walk with the result that every 1 hour the patient is in a semi-fowler position.

b. Acute pain due to physiological injury agents

The implementation of nursing actions on the second diagnosis, namely acute pain due to physiological injury agents, began on Wednesday, May 21, 2025 by identifying the pain scale with the results that the patient said the pain was in his head with a pain scale of 4, controlling the environment that aggravates the pain (eg: room temperature, lighting, noise with the results: the patient said he was uncomfortable with the room temperature being too cold, providing non-pharmacological techniques to reduce pain (eg: tens, hypnosis, acupressure, music therapy) with the results: the patient listened to mural, facilitating rest and sleep with the results: during dialysis, the patient slept for 1 to 2 hours.

c. Nutritional Deficit due to inadequate nutrient intake

The implementation of nursing actions for the third diagnosis, namely nutritional deficit due to inadequate nutrition, began on Wednesday, May 21, 2025 by identifying nutritional status and monitoring body weight with the results that the patient said that body weight had decreased before being sick for approximately 42 kg in the last month, performing oral hygiene before eating with the results that the patient seemed to maintain his own oral hygiene, encouraging eating small amounts but often, and monitoring food intake with the results that the patient said he finished 3-4 tablespoons.

Evaluation

a. Fatigue due to physiological conditions

After the implementation, the results of the evaluation showed that the fatigue problem was partially resolved, where the patient said that his body felt more relaxed and did not feel tired, felt that there was energy and the patient appeared to have strength after being

given a back massage. The results of the intervention were stopped and then continued by the family with a fatigue score after therapy from 37 (severe fatigue) to 23 (moderate fatigue).

b. Acute pain due to physiological injury agents

After the intervention, implementation, and evaluation results were obtained, the acute pain problem was resolved, the patient said he did not feel pain in the head, did not feel dizzy with a pain scale of 1, the patient looked calm, BP results: 138/84 mmHg with the intervention by providing non-pharmacological techniques to reduce pain where the patient listened to murottal.

In line with research conducted by Rahma et al., (2024) the action applied to the patient is murottal therapy. The pain experienced by the patient decreased on the first day before the murottal therapy was performed, the patient complained of pain in the head that came and went, but after receiving therapy, the patient felt calmer and more comfortable. At the evaluation stage on the third day, the patient's family said that the patient was already feeling comfortable.

c. Nutritional Deficit due to inadequate nutrient intake

After the intervention, implementation, and evaluation results were obtained, the problem of nutritional deficits was partially resolved. The patient said that his appetite had started to improve, and he did not feel nauseous. The patient said that his weight had started to increase. The patient appeared to finish 7-8 spoonfuls of his food. His weight appeared to be 38.10 kg. In line with research conducted by (Putri & Kusumayanti, 2024) where the nutritional deficit is marked by the patient having no appetite, the patient also said his body was weak, and the patient said there was weight loss. The implementation carried out was to advise the patient to eat more often with small portions, asking the patient to do oral hygiene before eating. In the evaluation results the patient said that his appetite had returned, he could finish more than half a portion, his face was no longer pale, and the patient seemed to finish his food.

Reporting Research Results

Before the back massage on the first day, the score was 37 which was in the severe fatigue category and after the back massage on the third day, the score was 23 which was in the moderate fatigue category. Where the patient said his body felt more relaxed and did not feel tired, felt there was energy and the patient seemed to have energy after being given the back massage application. The following are the results of the pre-test and post-test tables for the application of back massage.

Table 1. Results of pre-test and post-test of back massage application

Day/ Date	Fatigue Pre-Test Score	Fatigue Post-Test Score
Wednesday, May 21, 2025	37	30
Saturday, May 24, 2025	32	27
Wednesday, May 28, 2025	28	23

Fatigue can be overcome using non-pharmacological therapy, namely back massage. Back massage therapy makes clients feel calm and relaxed so this therapy is effective in reducing fatigue in CKD patients (Sulingga et al., 2024).

DISCUSSION

This type of case study uses a nursing care approach to chronic kidney failure patients who experience fatigue by providing back massage. Using a pretest-posttest design using the FAS questionnaire. After providing back massage therapy for 3 days, the results of the evaluation showed that the fatigue problem was partially resolved. The application of therapy *massage* in patients with chronic kidney failure has been proven to be successful in reducing physical fatigue problems, as seen from changes in physical fatigue scores. This back massage therapy can be continued by family members when the patient's fatigue reappears, so it can help solve patient care problems (Tambunan et al., 2023).

This massage technique involves applying pressure to the back with gentle movements. Studies have shown that back massage has an impact on reducing physical fatigue in patients with chronic kidney failure (Halawa et al., 2023). In line with research conducted by Sulingga et al (2024), The results of the study showed that in the two meetings before the back massage therapy, the level of fatigue in the first meeting was recorded at 22 (severe), and in the second meeting was 20 (mild). After the back massage therapy was performed, the level of fatigue in the first meeting dropped to 20 and in the second meeting to 19, which showed a decrease and was in the mild category. Patients expressed that back massage therapy made them feel calmer and more relaxed.

CONCLUSION

After the intervention, implementation, and evaluation, the results obtained in the first diagnosis were that the problem of fatigue was partially resolved, the second diagnosis was that the problem of acute pain was resolved, and the third diagnosis was that the problem of nutritional deficit was partially resolved.

CONFESSION

Documentation of care is done by recording all activities and results starting from the evaluation stage to the care records listed in the patient report as proof of responsibility.

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