

CASE STUDY OF THE IMPLEMENTATION OF BLOOD TRANSFUSION AND PRAYER ON FATIGUE IN CKD PATIENTS AT PKU GAMPING HOSPITAL

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Abstract

Background: Chronic Kidney Disease (CKD) is a global health problem with increasing prevalence. Stage V CKD patients undergoing hemodialysis often experience fatigue due to anemia caused by decreased erythropoietin production. Untreated fatigue can reduce quality of life and increase patient dependency. Objective: This study aims to describe the implementation of palliative nursing care in stage V CKD patients with fatigue problems through energy management interventions and collaboration in providing PRC blood transfusions and prayer. Research Methodology: This study uses a descriptive method with a case study approach on a male patient (Mr. S) at PKU Muhammadiyah Gamping Hospital in January 2026. Subjects were selected through purposive sampling with inclusion criteria of stage V CKD patients experiencing fatigue. Data were collected through interviews, observations, physical examinations and medical records. Nursing care was provided for 3x8 hours including assessment to evaluation based on SDKI, SLKI, and SIKI standards. Results: The initial initial assessment showed that the patient complained of fatigue with an ESAS tired score of 5 (moderate) and a hemoglobin level of 8.9 g/dL. Interventions included energy management and collaborative administration of PRBC and folic acid transfusions. After 3x8 hours of nursing care, the patient reported reduced fatigue, ESAS tired score decreased to 2 (mild), verbalization of fatigue decreased, and the ability to perform routine activities increased. Conclusion: Energy management interventions combined with pharmacological collaboration have been proven effective in reducing fatigue levels in patients. PRBC and folic acid transfusions play a role in addressing anemia, which is a major factor causing fatigue in CKD patients. This holistic and collaborative approach supports the achievement of the goal of palliative care, namely improving the patient's quality of life as a whole.

Keywords:Chronic Kidney Disease; Fatigue; Palliative Nursing; Blood Transfusion; Prayer

INTRODUCTION

Chronic Kidney Disease (CKD) is a global health problem, affecting more than 10% of the world's population and causing approximately 1.2 million deaths annually. The number of CKD cases is expected to continue to increase due to the increasing prevalence of diabetes mellitus, hypertension, and obesity as major risk factors (Dicu-Andreescu et al., 2023). In stage V, or End-Stage Renal Disease (ESRD), kidney function has declined significantly, requiring renal replacement therapy, such as hemodialysis or a kidney transplant, to maintain survival (Utami, 2022).

CKD is known as a silent disease because it often doesn't cause symptoms until it reaches an advanced stage. Patients undergoing hemodialysis commonly experience various complications, particularly fatigue, with a prevalence of 71.0%–92.2%. This condition impacts patients' ability to perform daily activities and quality of life (Pangesti et al., 2024; Setiawati et al., 2024).

Fatigue in CKD patients is influenced by various factors, including anemia due to low hemoglobin levels, prolonged hemodialysis, intradialytic hypotension, and increased interdialytic weight gain (IDWG). These conditions reduce oxygen supply to tissues, leading to fatigue, activity intolerance, and dependence on others (Santoso et al., 2022; Setiawati et al., 2024).

One treatment for fatigue caused by anemia is packed red cell (PRC) transfusion to increase hemoglobin levels and improve oxygen transport to tissues. CKD patients are considered anemic if their hemoglobin levels are ≤ 10 g/dL, and transfusions are administered according to clinical criteria to improve oxygenation and reduce fatigue symptoms (Wijayanti, 2021; Akuba et al., 2023; Elvades, 2024).

In addition to medical therapy, spiritual approaches also play a role in palliative care for CKD patients. Prayers of safety, as a form of spiritual therapy, are believed to increase inner peace, reduce anxiety, and help patients cope better with the hemodialysis process, thus improving their quality of life (Muzaenah et al., 2021; Husniah, 2024).

Based on these conditions, a description of the implementation of palliative nursing care through the collaboration of PRC transfusion and prayer in stage V CKD patients with fatigue is needed. This study aims to describe the implementation of this intervention in the Ar-Royan Ward of PKU Muhammadiyah Gamping Hospital. This research is expected to serve as a reference in the development of palliative nursing practices that integrate medical and spiritual interventions for a more holistic approach.

METHOD

This research used a descriptive method with a case study approach, aiming to provide an in-depth description of the application of palliative nursing care to CKD patients with fatigue. The case study approach was chosen because it allows for a comprehensive exploration of the nursing process in a real-life clinical context and provides a holistic understanding of the patient's response to nursing interventions.

Case management was conducted in the Ar-Royan Ward of PKU Muhammadiyah Gamping Hospital on January 5, 2026. The sampling technique used was purposive sampling, with inclusion criteria including adult patients diagnosed with CKD stage V undergoing hemodialysis, who experienced fatigue, composmentis awareness, and were willing to be research subjects. Exclusion criteria included patients with impaired consciousness, emergency conditions, and fatigue conditions unrelated to hemodialysis and CKD.

The subject of the study was a male patient with the initials Mr. S who was treated at PKU Muhammadiyah Gamping Hospital who experienced anxiety complaints. Data were collected through structured interviews, direct observation, physical examination, and review of the patient's medical records in accordance with the principles of comprehensive nursing assessment. In addition, a literature study was conducted on the latest textbooks and scientific journals to support evidence-based nursing practice.

Nursing care was provided over three 8-hour periods using a nursing process approach that includes assessment, nursing diagnosis, planning, implementation, and evaluation. Nursing diagnoses, interventions, and outcomes were compiled based on the Indonesian Nursing Diagnosis Standards (IDHS), the Indonesian Nursing Intervention Standards (SIHS), and the Indonesian Nursing Outcome Standards (SLHS) to ensure uniformity in terminology and the quality of nursing documentation.

Case management was carried out at the Ar-Royan Ward, PKU Muhammadiyah Gamping Hospital on January 5, 2026.

RESULTS AND DISCUSSION

The results of this case management represent the results of palliative nursing care provided over three 8-hour periods using a nursing process approach that includes assessment, nursing diagnosis, planning, implementation, and evaluation in accordance with professional nursing practice standards. The

assessment was conducted using observation, interviews, physical examination, and review of the patient's medical records as part of a comprehensive assessment.

The assessment was conducted on January 5, 2026, at the Ar-Royan Ward of PKU Muhammadiyah Gamping Hospital. During the assessment, subjective data was obtained that patient Mr. S complained of feeling tired easily after doing heavy activities such as walking long distances. Objective data showed a tired scale of 5 on the Edmonton Symptom Assessment System (ESAS) which is moderate, laboratory results of hemoglobin 8.9 g/dL indicating that the patient had anemia, urea 104.7 mg/dL and creatinine 10.23 mg/dL.

Based on the results of the assessment, the author established a nursing diagnosis of fatigue related to physiological conditions (CKD and anemia) characterized by complaints of fatigue, hemoglobin levels of 8.9 g/dL, urea 104.7 mg/dL and creatinine 10.23 mg/dL, in accordance with the Indonesian Nursing Diagnosis Standards (SDKI) (SDKI Working Group Team DPP PPNI, 2016). Based on the established nursing diagnosis, the author prepared a nursing plan with the aim that after 3x8 hours of nursing actions, it is expected that the fatigue problem can be resolved with outcome criteria in the form of increased ability to perform routine activities, decreased verbalization of fatigue, decreased wheezing and improved breathing patterns. This outcome is adjusted to the Nursing Outcome Standards (SLKI) (SLKI Working Group Team DPP PPNI, 2018), namely the level of fatigue improves with the main indicators being increased ability to perform routine activities, decreased verbalization of fatigue, decreased wheezing and improved breathing patterns.

Interventions that have been designed to address fatigue in patients include energy management in the form of identifying body function disorders that cause fatigue, monitoring physical and emotional fatigue, providing a comfortable environment, providing calming distraction activities, encouraging gradual activities, teaching coping strategies to reduce fatigue, collaborating on administering blood transfusions (PRC), collaborating on administering folic acid and consulting with a nutritionist if necessary. This intervention is in accordance with the Indonesian Nursing Intervention Standards (SIKI) (SIKI DPP PPNI Working Group Team, 2018). The nursing implementation carried out consists of observation, namely identifying body function disorders that cause fatigue, monitoring daily activities and patient abilities, monitoring physical and emotional fatigue of patients, encouraging adequate rest, monitoring reactions to blood administration, assessing ESAS fatigue. Therapeutic includes providing a comfortable environment, providing calming distraction activities. Education in the form of encouraging gradual activities and recommending coping strategies to reduce fatigue. Collaboration by working with doctors in administering blood transfusions (PRC) and folic acid according to medical instructions to prevent anemia that causes fatigue.

Evaluations were conducted daily after the intervention, with a final evaluation conducted at the end of the care period. After receiving palliative care, including energy management and the collaborative administration of blood transfusions (PRC) and folic acid for 3 x 8 hours, the patient reported reduced fatigue.

Objectively, the patient showed no signs of allergies, ESAS tired score 2 (mild). Based on the results of the SLKI indicator assessment, the following results were obtained: "ability to perform routine activities" increased from an initial score of 3 to 4 (towards 5), "verbalization of fatigue" decreased from an initial score of 4 to 5, "wheezing" decreased from an initial score of 3 to 5, and "breathing pattern" improved from an initial score of 3 to 5. These results indicate a significant improvement in the patient's condition after nursing interventions and collaboration in administering blood transfusions (PRC) and folic acid.

Thus, it can be concluded that most of the nursing care objectives have been achieved, indicated by increased ability to perform routine activities, decreased verbalization of fatigue, decreased wheezing, and improved breathing patterns. This indicates a positive effect of energy management interventions and collaboration in the administration of blood transfusions (PRC) and folic acid administration in the palliative care approach for patients with Stage V CKD.

Discussion

Based on the results in managed cases, there was a decrease in verbalization of fatigue, an increase in the ability to perform routine activities, a decrease in wheezing and improved breathing patterns after palliative nursing interventions in the form of energy management and collaboration in administering blood transfusions (PRC) and folic acid in CKD stage V patients. These findings are in line with the physiological mechanism of fatigue in CKD patients undergoing hemodialysis therapy who will experience anemia due to several factors including decreased erythropoietin production, blood loss during the dialysis process, restrictions on therapeutic diets, frequent blood draws for laboratory examinations. Symptoms of anemia experienced include weakness, fatigue, feeling dizzy, dizzy eyes and a pale face (Mandaku et al., 2024).

Collaborative blood transfusion (PRC) is recommended if a person's hemoglobin level is <7 g/dL. Furthermore, PRC blood transfusions are not solely based on the patient's hemoglobin level but should also be considered based on the individual's clinical condition or symptomatic condition of the affected individual. One measure that can be taken to correct anemia is blood transfusions. However, because the kidneys are damaged, these organs cannot produce the hormones necessary for the formation or maturation of blood cells, even after undergoing blood transfusions. Management of blood transfusions in patients with CKD must be carried out during the hemodialysis process with the administration of Paced Red Cell (PRC) components. This is to prevent fluid overload, which can cause the kidneys to work harder. The second most common monotherapy is oral iron. Anemia in CKD patients can be treated with iron, erythropoietin, and blood transfusions. However, hemoglobin levels must be monitored before undergoing anemia therapy. In anemia treatment, patients receive a daily dose of 100 mg to replenish iron stores in the bone marrow. The appropriate daily dose of iron tablets is 100-200 mg. An oral dose of 200 mg of ferrous sulfate, given once or twice daily, is effective in preventing mild iron deficiency anemia. For anemia in children, oral iron is given at a dose of 3-6 mg/kg (maximum 200 mg/day) divided into two or three doses (Akuba et al., 2023).

Based on the SLKI criteria, the problem of "Fatigue" has been resolved, indicated by a decrease in the initial ESAS Tired score from 5 to 2, a decrease in verbalization of fatigue, an increase in the ability to perform routine activities, decreased wheezing and improved breathing patterns. Therefore, energy management interventions and collaboration in administering blood transfusions and administering folic acid medication need to be continued and maintained continuously, especially the administration of folic acid medication after a hemodialysis session to achieve optimal symptom stability (SLKI DPP PPNI Working Group Team, 2018). Follow-up plans include: (1) continuing collaboration in administering PRC blood transfusions according to medical indications; (2) administering folic acid medication according to medical indications post-dialysis; (3) monitoring hemoglobin levels, nutrition and patient activity; (4) conducting a re-evaluation in the next 24 hours to monitor complaints of fatigue and the patient's comfort level (SLKI DPP PPNI Working Group Team, 2018).

Thus, the implementation of palliative nursing interventions based on pharmacological collaboration and a holistic approach has proven effective in overcoming fatigue in patients with CKD

stage V, as well as supporting the achievement of the main goal of palliative care, namely improving the overall quality of life of patients (World Health Organization, 2020).

CONCLUSION

Based on the results of the assessment, planning, implementation, and evaluation of nursing care for Mr. S with fatigue problems, it can be concluded that palliative nursing interventions in the form of energy management and collaboration in administering blood transfusions (PRC) and folic acid administration have a significant positive impact. Subjective and objective data show a decrease in verbalization of fatigue, an increase in the ability to perform routine activities, decreased wheezing, and improved breathing patterns. Although some outcome indicators have not fully reached the target value, the consistent decrease in fatigue indicates the effectiveness of the palliative nursing interventions implemented. Therefore, the collaboration in administering PRC blood transfusions and folic acid medication, as well as holistic nursing interventions, needs to be maintained as part of the standard of nursing care for CKD patients, to achieve optimal symptom stability and improve the patient's quality of life in a sustainable manner.

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