

## Nursing Care of Chronic Kidney Disease with Activity Intolerance Nursing Problems: A Case Study

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### Abstract:

Nursing care for patients who experienced chronic kidney disease with intolerance of activities and nursing problems in the Bougenville Room at Dr.H.Koesnadi General Hospital, Bondowoso Regency. Chronic Kidney Disease (CKD) is an irreversible disease that develops slowly and progressively. The main factor causing this disease is adults with Diabetes Mellitus and Hypertension. Symptoms are pain, hematuria, anuria, and anemia. This of course results in a feeling of weakness and fatigue so that the problem of Activity Intolerance can arise. This study aims to carry out nursing care for clients who experience chronic kidney disease with activity intolerance nursing problems. The research design was a case study of one patient with chronic kidney disease with Activity Intolerance nursing problems in the internal care room (Bougenville) Dr.H. Koesnadi Bondowoso. Data was collected on 15-16 May 2023 using interviews, observation, physical examination, documentation studies, and questionnaire techniques. The results of this study were obtained from the assessment, which then formulated a diagnosis in accordance with the theoretical review. Nursing interventions using SIKI adapted to the client's conditions, implementation, and evaluation referring to the results criteria obtained are 99% O<sub>2</sub> saturation, RR 19 x/minute, decreased complaints of fatigue, and decreased feeling of weakness. Clients are expected to always maintain their health condition, especially fluid intake, and balanced nutrition to support kidney function and fulfill daily activities.

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## INTRODUCTION

Chronic Kidney Disease is an irreversible condition in which kidney function decreases over time. CKD usually develops slowly and progressively, sometimes over the years, with patients often not realizing their condition has worsened. The ability to produce adequate erythropoietin is impaired, resulting in decreased production of red blood cells and, eventually, anemia. Thus, anemia is a frequent complication of CKD (Nurbadriyah., 2022). Chronic kidney Disease (CKD) is a disorder of the structure or function of the kidneys for more than 3 months, with health implications that are classified based on the cause, glomerular filtration rate (GFR), and albuminuria category. One of the renal replacement therapies in patients with kidney failure is hemodialysis (HD) (Ningsih et al., 2021). Patients who undergo hemodialysis in the long term must face various problems, such as finances, difficulties at work, decreased sex drive, depression, and fear of facing death, and a lifestyle that must change, more or less affecting one's enthusiasm for life. It has decreased due to changes that must be faced and will affect the quality of life of chronic kidney failure patients (Welly & Rahmi, 2021).

Prevalence The number of patients with kidney failure is predicted to increase in 2025 in several regions such as Southeast Asia, the Mediterranean and the Middle East and Africa. The increase in cases is expected to reach more than 380 million people (Anggraini & Fadila, 2023). The prevalence of chronic kidney disease in Indonesia is 2% or 499,800 people are affected by this disease. The risk factors for chronic kidney disease in Indonesia are hypertension 25.8%, obesity 15.4%, and Diabetes Mellitus 2.3% (Pertiwi & Prihati, 2020).

Activity intolerance needs more energy to carry out daily activities. One effort to manage clients with activity intolerance is to provide activity therapy (Warijan et al., 2021). Activity intolerance can be caused by bed rest, immobility, weakness, and a monotonous lifestyle (Astuti et al., 2022). Activity intolerance can be resolved by advising the patient to rest in bed and carry out daily activities gradually. This requires practice in several meetings, which can be seen from some of the client's responses when doing the exercises, namely pulse, breathing, and body strength response (Lutfiandini et al., 2021).

Nursing care is a series of individual nursing processes for patients by assessing, establishing nursing diagnoses, planning, carrying out nursing actions, and evaluating patients (Guswanti, 2019). Nursing care planning is individualistic and responsive to the unique needs of patients. The goal is to devise a strategy to overcome obstacles or patient problems. The nurse regularly reviews the patient's progress and revises the care plan according to the patient's needs (Christina et al., 2019; Purwandari et al., 2022). This study aims to carry out nursing care for clients who experience chronic kidney disease with activity intolerance nursing problems.

## METHOD

This research is a case study that explores a phenomenon intensively with detailed boundaries and has in-depth data collection with various information to obtain a clear picture of a subject unit. Case studies are limited by time and place, with the focus of research being activity events in individuals within the range of 24-hour nursing care. In this study, a case study was conducted by exploring the problem with Mrs. S, who experiences chronic kidney disease with nursing problems and intolerance of activities in the Bougenville Room at Dr. H. Koesnadi General Hospital, Bondowoso Regency in 2023". The inclusion criteria in this study were clients who met the criteria: oxygen saturation category 5 (increased), complaints of fatigue category 5 (decreased), feeling of weakness category 5 (decreased), blood pressure category 5 (improved), and respiratory rate category 5 (improved).

The target population in this study is a client named Ny. S is female, 55 years old in the internal room (Bougenville) General Hospital Dr. H. Koesnadi Bondowoso.

This research was conducted in the internal room, Bougenville General Hospital Dr. H. Koesnadi Bondowoso, from 15 May – 17 May 2023.

The data collection methods were interviews, observations, physical examinations and documentation studies, and questionnaires. Interviews were conducted with clients, families, and nurses with the results of data in the form of client identity, main complaints, history of current illness, past medical history, family history of disease, and patterns of health function. Observation and physical examination are carried out by inspection, palpation, percussion, and auscultation of the client's body systems. Document and questionnaire studies are carried out by examining client data from medical records.

The basis of ethics in the preparation of case studies is the consent to become a client (informed consent) of the respondents who will be studied and meet the inclusion and exclusion criteria. The writing of research subjects is listed anonymously. Basic Confidentiality (secrecy),

namely the detailed data obtained in this study to be kept secret. In this study, researchers carried out an ethical test on May 1, 2023, which was carried out at the Health Research Ethics Commission, Faculty of Health Sciences, Universitas Muhammadiyah Jember, with number 0196/KEPK/FIKES/XII/2023.

## RESULT

### Results of the assessment

Based on the assessment results, the nursing problem that can be enforced in this case is Activity Intolerance. The researcher will describe the research results based on the stages of the nursing process.

Data from the assessment results show subjective data: Patients say they are weak and unable to do their activities, such as changing clothes and sitting independently, standing up if not assisted, and going to the toilet without assistance. From the objective data, the results are as follows: the client looks weak and pale, and vital signs (blood pressure: 135/87mmHg, RR: 20 x/minute, HR: 96 x/minute, S: 35.4 °C), SpO<sub>2</sub>: 98%, hemoglobin: 9.0 g/dl, creatinine: 12.84 mg/dl and urea 248 mg/dl.

Based on the analysis of the data obtained, a nursing diagnosis of Activity Intolerance can be enforced related to weakness, which is characterized by the client looking weak, Hemoglobin: 9.0 g/dl, Creatinine: 12.84 mg/dl, and Urea 248 mg/dl.

Nursing interventions for activity intolerance problems are after nursing actions are carried out for 3 times 24 hours. The problem was resolved with the results obtained; the client said he was still weak but could do his activities, such as sitting and standing alone and walking to the bathroom alone. Nursing actions given to Mrs. S on May 15 – May 17, 2023, were carried out according to the intervention plan that has been made. Based on the evaluation results during the 3 interventions, the results of the activity intolerance nursing problem could be resolved because it was under the outcome criteria.

## DISCUSSION

### Assessment

The basic data collection stage includes subjective data and objective data. The client is a woman Mrs. S, who is 55 years old with a client who says he needs help to carry out activities. Based on objective examination data, this can be proven: the client suffers from anemia with a Hb level of 9.0 g/dl. From the study of past medical history, the client has carried out routine hemodialysis treatment 2 times a week. In assessing activity patterns such as dressing, elimination, mobilization in bed and walking, others still assist the client.

This follows the theory that there are several symptoms of chronic kidney disease, such as lethargy, headache, shortness of breath, proteinuria, hematuria, oliguria, anuria, symptoms of anemia such as weakness and fatigue, hypertension, and paleness. The main factors causing Chronic Kidney Disease are Diabetes Mellitus and Hypertension and the course of this disease is progressive and irreversible where patients often do not realize that their condition is severe and can cause complications such as anemia (Nurbadiyah, 2022).

The author's opinion is that Mrs. S has symptoms of Activity Intolerance due to several factors from a long-standing disease process so that several results from the laboratory have results that are below and above normal. The signs and symptoms that can most be seen in

someone with chronic kidney disease are signs of anemia, such as weakness, fatigue, dark urine, and pain when urinating.

### **Nursing Diagnose**

The nursing diagnosis the researcher raised on Mrs. S was Activity Intolerance which followed the theory and was obtained through assessment. study. According to the SDKI (Indonesia Nursing Diagnosis Standards), activity intolerance needs more energy to carry out daily activities. Causes of Activity Intolerance in the SDKI (Indonesian Nursing Diagnosis Standards) Imbalance between oxygen supply and demand, bed rest, weakness, immobility, and monotonous lifestyle. Subjective major symptoms and signs Activity intolerance in the IDHS (Indonesian Nursing Diagnosis Standards) Complaining of tiredness, dyspnea during or after activity, feeling uncomfortable after doing activities, feeling weak. According to the researcher's opinion, based on subjective and objective data on Mrs. S's assessment of Activity Intolerance nursing problems under the theory, researchers raised the Activity Intolerance nursing problem.

### **Nursing Intervention**

The author takes nursing interventions based on theory. Nursing planning refers to the SIKI (Indonesian Nursing Intervention Standards) book, namely Energy Management: Observation: 1) Identification of impaired bodily functions that cause fatigue, 2) Monitor physical and emotional fatigue, 3) Monitor sleep patterns and hours, 4) Monitor location and discomfort while doing activities. Therapeutic: 5) Provide a comfortable environment and low stimulus (eg, light, sound, visits), 6) Provide fun distraction activities, 7) Facilitate sitting in bed, if unable to move or walk Education: 8) Advise bed rest. 9) Suggest doing activities gradually. Collaboration: 10) Collaboration with nutritionists on how to increase food intake. According to the opinion of the intervention researcher taken by the researcher on Mrs. S's client using 10 interventions and under the SIKI (Indonesia Nursing Intervention Standards).

### **Nursing Implementation**

The implementation applied to Mrs. S clients is by existing interventions. The implementation refers to SIKI (Indonesian Nursing Intervention Standards) interventions that have been adapted to the client's circumstances and makes it easier to carry out the nursing care process and bring closer the relationship of mutual trust between the client and the researcher. Implementation is the stage of implementing the nursing action plan set for the nurse and the client. The planned interventions carry out implementation.

According to the opinion of the researchers, the implementation of the first meeting until the third meeting went according to the intervention that made Mrs. S is getting better every day, at the beginning Mrs. S could only lie in bed and be assisted in her activities until Mrs. S was able to sit up and walk to the bathroom on her own.

### **Evaluation**

At the first evaluation meeting on May 15, 2023, the problem still needed to be resolved, of all the implementations, the researcher took 10 implementations, and it was carried out on Mrs. S. walk to the bathroom. Objective: General condition: weak, BP: 135/87 mmHg RR: 19 x/minute HR: 97 x/minute S : 35.9 °C SpO2 : 98% The problem with Mrs.S is partially resolved based on the goals and criteria. The results are 1. Oxygen saturation (5) increases 2. Complaints of fatigue (3) moderate 3. Feeling weak (3) moderate 4. Blood pressure (4) moderately improved 5. Respiratory frequency (5) improved.

In the evaluation of the second meeting on May 16, 2023, the problem was partially resolved, of all the implementations, the researcher took 3 implementations, and it was carried out on Mrs. S. alone but still assisted walking to the bathroom Objective: Looks more energetic general condition: Weak BP: 133/83 mmHg, RR: 21 x/minute, HR: 97 x/minute, T: 35,4 °C SpO2: 98% Problems with Mrs. S is partially resolved in terms of objectives and outcome criteria, namely: 1) Oxygen saturation category 5 (increased), 2). Complaints of fatigue category 3 (moderate), 3). Feeling weak category 3 (moderate), 4). Blood pressure category 4 (moderately) improved. and 5). Respiratory rate category 5 (improving).

At the evaluation of the third meeting, the problem was partially resolved, the researcher took 4 implementations, and it was carried out on Mrs. S with the following evaluation results: Subjective Data: The client said he was still weak but was able to do his activities such as sitting and standing alone and walking to the bathroom alone. Data Objective Data: The client looks more energetic; General Condition: Adequate, BP: 146/99 mmHg RR: 19 x/minute HR: 97 x/minute T: 36.8 °C SpO2: 99% Until it is concluded that the problem has been resolved marked with 1) Oxygen saturation category 5 (increased), 2. Complaints of fatigue category 5 (decreased) 3). Weak feeling category 5 (decreased), 4). Blood pressure category 5 (improved), 5). Respiratory rate category 5 (improving).

Evaluation is the last step of the nursing process by identifying the extent to which the goals of the nursing plan have been achieved. evaluation of the overall action to assess the success of the actions taken and describe progress in achieving the predetermined goals. This evaluation usually uses the "SOAP" format. The evaluation aims to get back nursing plan feedback, value, and improve the quality of nursing care through the results of a comparison of predetermined standards.

To determine the success or failure of the treatment given, referring to the 5 outcome criteria in the plan, all of which have been achieved after nursing actions were carried out for 3 meetings, it can be concluded that the nursing problem of Activity Intolerance in Mrs. S can be resolved because during treatment Mrs. S can following recommendations.

## **CONCLUSION**

The results of this study concluded that the respondent Mrs. S with a diagnosis of chronic kidney disease has emerged a nursing problem of activity intolerance. In carrying out the implementation it has been carried out in accordance with the intervention and the client's condition with the result that the problem can be resolved in accordance with the specific objectives and outcome criteria.

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## **CONFLICT OF INTEREST**

There is no conflict of interest in this article.

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