

NURSING CARE FOR MR. A WITH ENDOCRINE SYSTEM DISORDER: TYPE II DIABETES MELLITUS IN THE 2ND FLOOR WARD A OF PUTRI BIDADARI GENERAL HOSPITAL, ACEH

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Abstract

Type II Diabetes Mellitus (DM) is a chronic metabolic disease characterized by hyperglycemia caused by impaired insulin secretion and insulin resistance. This disease has become a global health problem with a prevalence that continues to increase each year and may lead to various complications, such as neuropathy, nephropathy, retinopathy, and cardiovascular disorders. Therefore, comprehensive management through appropriate nursing care is essential. This case study aimed to describe the implementation of nursing care for a patient with Type II Diabetes Mellitus in the 2nd Floor Room A of Putri Bidadari General Hospital, Aceh. The method used was a case study approach applying the nursing process, including assessment, nursing diagnosis, intervention, implementation, and evaluation. The assessment results in Mr. A revealed complaints of weakness, frequent urination, excessive thirst, and elevated blood glucose levels. The nursing diagnoses identified included unstable blood glucose levels, nutritional deficits, risk of impaired skin integrity, and activity intolerance. Nursing interventions included monitoring blood glucose levels, providing diabetes diet education, administering therapy according to the medical program, monitoring vital signs, and assisting with daily activities. Nursing care was implemented continuously and evaluated based on the patient's progress. The evaluation results showed improvement in the patient's general condition, reduced complaints, and increased knowledge regarding the management of Type II Diabetes Mellitus. Comprehensive and continuous nursing care plays an important role in controlling the disease, preventing complications, and improving the quality of life of patients with Type II Diabetes Mellitus.

Keywords: Type II Diabetes Mellitus, Nursing Care, Blood Glucose Control, Case Study, Patient Management

INTRODUCTION

Diabetes Mellitus (DM) is a chronic metabolic disease characterized by elevated blood glucose levels resulting from impaired insulin secretion, insulin action, or both (Fandinata & Darmawan, 2020; Sari, 2021). Type II Diabetes Mellitus is the most common type of diabetes, accounting for approximately 90% of all diabetes cases worldwide (Evi & Bella, 2016). Type II Diabetes Mellitus refers to a metabolic disorder characterized by elevated blood glucose levels (hyperglycemia) due to inadequate insulin production, impaired insulin action, or both. Chronic hyperglycemia may lead to long-term damage and functional failure of various organs, including the eyes, kidneys, nerves, heart, and blood vessels (American Diabetes Association, 2020). This disease is closely associated with insulin resistance, which is influenced by various factors, including obesity, unhealthy dietary patterns, lack of physical activity, smoking, and alcohol consumption (Pangestika et al., 2022). Persistent hyperglycemia may lead to serious

complications, such as neuropathy, nephropathy, retinopathy, cardiovascular disease, and diabetic ulcers that may result in amputation (Hartono, 2019).

Globally, the prevalence of Diabetes Mellitus continues to increase each year and has become a major public health concern. According to the International Diabetes Federation (IDF), Indonesia ranks seventh among countries with the highest number of people living with diabetes, with approximately 10.7 million cases (Zhafarina et al., 2022). Data from the 2018 Basic Health Research (Riskesdas) also showed an increasing prevalence of diabetes mellitus in almost all provinces in Indonesia, including Aceh Province, which reported a prevalence of 2.4% (Riskesdas, 2018). In Banda Aceh, diabetes mellitus remains one of the non-communicable diseases with a relatively high incidence rate.

The increasing prevalence of Type II Diabetes Mellitus contributes to a higher risk of complications and decreased quality of life among patients. Therefore, comprehensive management is necessary, including blood glucose monitoring, dietary management, physical activity, pharmacological therapy, and continuous health education (Dewi et al., 2022). Nurses play an essential role as caregivers, educators, advocates, and healthcare managers in assisting patients to control their condition and prevent complications.

Previous studies have shown that proper nursing care implementation can improve patients' self-care abilities and overall health conditions among patients with Type II Diabetes Mellitus (Dewi et al., 2022). However, the implementation of nursing care for patients with Type II Diabetes Mellitus in inpatient settings still requires further exploration to evaluate the effectiveness of the comprehensive nursing process (Nasution, 2021). Based on the background above, this study aims to describe the implementation of nursing care for Mr. A with Type II Diabetes Mellitus in the 2nd Floor Ward A of Putri Bidadari General Hospital, Aceh. This study is expected to serve as a source of information and reference for the development of nursing practice, particularly in the management of patients with Type II Diabetes Mellitus.

RESEARCH METHODOLOGY

This study employed a descriptive case study approach to explore the implementation of nursing care in patients with Type II Diabetes Mellitus. The study was conducted in the 2nd Floor Ward A of Putri Bidadari General Hospital, Aceh, in 2024. The subject of this study was one patient diagnosed with Type II Diabetes Mellitus who underwent inpatient treatment.

Data were collected through interviews, physical examinations, direct observation, and review of medical records. The collected data included biological, psychological, social, and spiritual aspects of the patient. The nursing care process was carried out systematically through assessment, nursing diagnosis, nursing intervention, implementation, and evaluation. Data analysis was performed descriptively by comparing the patient's condition and nursing outcomes with relevant theories and previous studies related to Type II Diabetes Mellitus.

RESULTS AND DISCUSSION

The nursing care process was conducted for Mr. A, a patient diagnosed with Type II Diabetes Mellitus who was treated in the 2nd Floor Ward A of Putri Bidadari General Hospital, Aceh. The assessment results showed that the patient complained of weakness, frequent urination, excessive thirst, decreased activity tolerance, and elevated blood glucose levels. Physical examination findings also indicated decreased physical endurance and signs associated with hyperglycemia. These findings reflect the common clinical manifestations of Type II Diabetes Mellitus caused by impaired insulin effectiveness, leading to persistent hyperglycemia and metabolic imbalance.

Table 1. Patient Characteristics

Characteristics of Respondents	
Initials	Mr. A
Age	71 Years
Gender	Male
Medical Diagnosis	Type II Diabetes Mellitus
Treatment Status	Inpatient

Based on the assessment findings, several nursing diagnoses were identified, including unstable blood glucose levels, nutritional deficit, risk of impaired skin integrity, and activity intolerance. These problems are commonly found in patients with Type II Diabetes Mellitus and are closely related to insulin resistance and prolonged hyperglycemia, which may increase the risk of complications such as diabetic ulcers, neuropathy, and cardiovascular disorders.

The nursing interventions implemented included monitoring blood glucose levels and vital signs, providing education regarding diabetic diet management, encouraging physical activity according to the patient's condition, administering therapy based on the medical program, and assisting the patient in performing daily activities. In addition, the patient received education on medication adherence, blood glucose control, and prevention of complications. These interventions are in accordance with the principles of diabetes management, which emphasize glycemic control, lifestyle modification, and patient education to improve self-care abilities.

The implementation of nursing care was carried out systematically according to the nursing care plan. During the evaluation phase, the patient showed improvement in general condition, reduced complaints of weakness and excessive thirst, improved activity tolerance, and increased understanding regarding diabetes management and self-care practices. This improvement indicates that comprehensive and continuous nursing care has a positive impact on patient outcomes.

Furthermore, the findings of this study highlight that patients with Type II Diabetes Mellitus commonly experience decreased physical condition, such as weakness and reduced activity

tolerance, due to metabolic imbalance caused by persistent hyperglycemia. This condition affects the patient's ability to perform daily activities independently and may lead to further health deterioration if not managed properly.

The identification of nursing diagnoses, including unstable blood glucose levels, nutritional deficit, and activity intolerance, reflects the common clinical conditions found in patients with Type II Diabetes Mellitus. These conditions are closely related to ineffective insulin utilization and prolonged elevated blood glucose levels, which may interfere with the patient's overall physiological functions.

In this study, the implementation of nursing interventions such as blood glucose monitoring, dietary education, and activity support plays an important role in improving the patient's condition. Continuous monitoring allows early detection of changes in blood glucose levels, while proper dietary management helps maintain metabolic balance. In addition, gradual physical activity can improve circulation and enhance the patient's physical endurance.

The improvement observed in the patient's condition, including reduced symptoms and increased understanding of diabetes management, indicates that the nursing care provided was effective. This supports the concept that comprehensive nursing care, which includes education, monitoring, and direct patient support, is essential in managing Type II Diabetes Mellitus.

Overall, the results of this study demonstrate that the application of the nursing process, including assessment, diagnosis, intervention, implementation, and evaluation, plays a significant role in managing patients with Type II Diabetes Mellitus. Effective nursing care not only helps control blood glucose levels but also enhances patient knowledge and self-management, thereby reducing the risk of complications and improving the patient's quality of life.

Table 2. Summary of Nursing Care in Patients with Type II Diabetes Mellitus

Stage	Data / Problems	Nursing Interventions	Evaluation Outcomes
Assessment	Weakness, polyuria, polydipsia, elevated blood glucose levels, decreased activity tolerance	-	-
Diagnosis	Unstable blood glucose levels	Blood glucose monitoring, medical therapy	Blood glucose levels improved
	Nutritional deficit	Diabetes diet education	Patient's understanding improved
	Risk of impaired skin integrity	Skin assessment, wound care education	No skin complications observed

	Intoleransi aktivitas	Gradual activity encouragement, assistance with ADL	Activity tolerance improved
Implementation	All identified diagnoses	Nursing care implemented according to plan	Interventions carried out properly
Evaluation	Patient's general condition	-	Reduced symptoms and improved condition

Conclusions

Based on the implementation of nursing care for Mr. A with Type II Diabetes Mellitus, it can be concluded that the patient experienced primary complaints of weakness, dizziness accompanied by nausea and vomiting, as well as pain in both legs characterized by tingling sensations and decreased activity tolerance. The assessment results indicated elevated blood glucose levels supported by clinical data and vital signs. Based on data analysis, several nursing diagnoses were established, including unstable blood glucose levels, nutritional deficit, and impaired physical mobility.

The nursing care plan and implementation included blood glucose management, nutritional management, and physical mobility management through monitoring blood glucose levels, monitoring vital signs, administering pharmacological therapy, improving nutritional intake, and encouraging physical activity according to the patient's ability. The evaluation results showed that the nursing care provided had a positive impact on the patient's condition, where the diagnosis of nutritional deficit was resolved, while the diagnoses of unstable blood glucose levels and impaired physical mobility showed improvement but were not fully resolved.

Therefore, comprehensive and continuous nursing care is essential in helping to control the condition of patients with Type II Diabetes Mellitus, as well as improving their quality of life and independence in self-care.

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