



MANAGEMENT OF GERIATRIC NURSING CARE WITH EXCELLENT SERVICE FOR Mrs. R WITH TYPE II DIABETES MELITUS AT THE ELDERLY SERVICE UNIT BINJAI, NORTH SUMATERA PROVINCE, IN 2025

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ABSTRACT

The increasing number of elderly people who experience chronic diseases, especially type II diabetes mellitus, is a challenge in geriatric nursing services. This scientific paper aims to apply geriatric nursing care management based on service excellence to Mrs. R, a 71-year-old elderly who suffers from type II diabetes mellitus, at UPTD Social Services for the Elderly Binjai, North Sumatera. This writing uses a descriptive case study approach with data collection methods through observation, interviews, and physical examinations. The main focus of nursing interventions includes managing blood glucose levels, handling skin integrity disorders due to diabetic ulcers, and controlling acute pain. The results of nursing care showed an improvement in the patient's clinical condition, characterized by a decrease in blood glucose levels from 284 mg/dl to 101 mg/dl, reduced pain, and increased patient awareness of a healthy lifestyle. The service excellent approach applied positively contributed to the patient's quality of life and supported the achievement of the Sustainable Development Goals (SDGs) target point 3.4, specifically in reducing premature mortality due to non-communicable diseases. This work confirms the importance of comprehensive, humanist, and sustainable nursing care in elderly health services in the era of globalization.

Keywords: type II diabetes mellitus, elderly, geriatric nursing, service excellence, nursing care
Introduction

Diabetes mellitus (DM), a chronic metabolic disorder marked by elevated blood glucose (or blood sugar) levels that seriously harm the heart, blood vessels, eyes, kidneys, and nerves, is one of the non-communicable diseases that affect people's quality of life (Sinaga, 2025)

The Sustainable Development Goals (SDGs) is a global agenda that has been adopted by Indonesia through Presidential Regulation No.59 of 2017, which regulates the mechanism for implementing, monitoring, and reporting on the

achievement of SDGs at the national and regional levels. Strengthening this commitment is reflected in the RPJMN 2020-2024 (Presidential Regulation No. 18 of 2020), as a derivative of Law No.25 of 2004 concerning the National Although not part of legislation in the narrow sense, the substance of the SDGs has been internalized in various sectoral laws, such as Law No. 36 of 2009 on Health, Law No. 32 of 2009 on the Environment, and Law No. 13 of 1998 on the Welfare of (Manurung, 2020) the Elderly. This shows that the SDGs have gained legal legitimacy

through integration into national development policies and systems.

Due to either insufficient insulin synthesis or poor insulin use, non-insulin-dependent diabetes mellitus typically manifests in adulthood. Type 2 diabetes accounts for 90–95% of all instances of the disease worldwide. The annual incidence rates of type 1 and type 2 diabetes in the US are 18.6/100,000 and 8.5/100,000, respectively. According to the most recent census, the prevalence of type II diabetes in Indonesia rose dramatically from 1.5–2.3% approximately 15 years ago to 12.8% in 2023 (Agussamad & Murdianto, 2024).

Diabetes mellitus, also known as diabetes, is a chronic, lifelong condition that affects the way the body manages blood sugar levels. In general, diabetes is divided into two main types. Type 1 is caused by heredity and autoimmune disorders, where the body's immune system attacks the cells in the pancreas that produce insulin. Meanwhile, in type 2 diabetes, the pancreas still produces insulin, but the body no longer responds effectively to the hormone - a condition known as insulin resistance. This type is generally closely related to unhealthy lifestyles, such as being overweight, having an unbalanced diet, and lack of physical activity. (Lestari, 2021).

Diabetes mellitus is now seen as one of the most pressing Public Health issues globally. The International Diabetes Federation (IDF) regularly publishes comprehensive reports on the current situation of the disease, including prevalence data from various countries. In 2011, the IDF recorded that 366 million adults aged 20 to 79 years, or about 8.5% of the total global population, had been diagnosed with diabetes. This figure continues to increase significantly. Two

decades later, in 2021, IDF released new data showing a surge in the number of people with diabetes to 537 million adults, accounting for 9.8% of the world's population. (Hadi & Stephen Lukas, 2024). Furthermore, the latest report from the International Diabetes Federation in 2024 revealed that the number of people with diabetes mellitus in the world has reached 589 million adults in the age range of 20 to 79 years. This number is predicted to rise sharply to 853 million by 2030, showing an alarming epidemiological trend in the coming decade. (America, 2024).

The reason the author chose to raise the case of type 2 diabetes mellitus is because of the high number of patients who continue to increase every year. This condition is mostly triggered by unhealthy lifestyles, such as irregular eating habits, lack of physical activity, and high levels of stress. This phenomenon is a serious concern, given its broad impact on the quality of life of individuals and the burden on the health system in general.

Research Method

The reason I chose to raise the case of type 2 diabetes mellitus is because of the high number of sufferers that continues to increase every year. This condition is mostly triggered by unhealthy lifestyles, such as irregular eating habits, lack of physical activity, and high levels of stress. This phenomenon is a serious concern, given its far-reaching impact on the quality of life of individuals and the burden on the health system in general (Sinaga, 2022).

This research was conducted at the Regional Technical Implementation Unit (UPTD) of Binjai Elderly Social Services, North Sumatra, which is under the Binjai City Social Service. This institution was previously named Panti Sosial Tresna



Werdha Abdi Binjai and was established on December 20, 1980 based on the Decree of the Indonesian Minister of Social Affairs Number 32/HUK/KEP/IV/1982 concerning the establishment of PSTW in 14 regions. In 2010, the name of this institution was changed to UPTD of Binjai Elderly Services as a form of institutional adjustment and improving the quality of services for the underprivileged elderly. Structurally, this UPTD is part of the UPTD Abdi / Dharma Asih Binjai, under the coordination of the North Sumatra Provincial Welfare and Social Service, in accordance with North Sumatra Provincial Regulation No. 3 of 2001. This institution has a vision of realizing the welfare and happiness of the elderly, with a mission that includes meeting basic needs, empowerment, and harmonious social development. The implementation of nursing care for Mrs. R, a patient with type 2 diabetes mellitus, was carried out on March 24-27, 2025 and April 8-9, 2025. The nursing process includes interviews, observations, and a thorough physical assessment, according to professional practice standards.

This study involved one participant diagnosed with type 2 diabetes mellitus. Subject selection criteria were categorized as follows:

1. Inclusion criteria
 - a. Individuals with a confirmed medical diagnosis of type 2 diabetes mellitus.
 - b. Individuals classified as elderly
2. Exclusion Criteria:
 - a. Individuals who did not exhibit nursing related problems associated with type 2 diabetes mellitus.

- b. Individuals who refused to participate in the study as research subjects.

Methods of collecting information from patients such as direct observation, interviews, physical examination and other methods were used in this case study. This data collection was carried out using a prepared assessment format. Researchers only focus on asking questions according to the assessment format

1. Primary Data

Primary data refers to information collected directly through observation or direct interviews with respondents, using structured questionnaires and pre-prepared questionnaires.

2. Secondary Data

Secondary obtained directly from medical records at UPTD Elderly Services Binjai North Sumatra

Data analysis is a process that takes place simultaneously with data collection. This stage includes processing and reviewing information using certain techniques. The analysis is carried out by stating the facts found in the field, then comparing them with relevant theories. The results of this analysis are then compiled in the form of a discussion. The technique used in this process is an in-depth study of respondents through interviews.

Result

On March 19, 2025, an initial survey was conducted at the UPTD social services in Binjai, the number of residents who experienced diabetes mellitus was 15 elderly out of 198 elderly people, meaning that the prevalence of this case was 7.58%. Based on this prevalence, the authors are interested in raising this case and providing

nursing care to Mrs.x who suffers from type 2 diabetes mellitus.

Based on the literature study, three common nursing diagnoses found in patients with type 2 diabetes mellitus include instability of blood glucose levels, nutritional deficits, and impaired skin integrity. However, the results of direct assessment in the field showed a difference, where the diagnoses that were more relevant to the patient's condition were unstable blood glucose levels, impaired skin integrity, and acute pain. Although there was concordance between theory and field findings on two diagnoses, namely glucose instability and skin integrity disorders, the diagnosis of nutritional deficits was not found in the patient, and instead acute pain complaints appeared as a priority for treatment. This shows that the nursing approach does not only depend on theory alone, but must also be adapted to the real conditions and individual needs of the patient as a whole.

The purpose of nursing interventions in patients with diabetes mellitus who experience foot wounds is to prevent complications such as infection, wound expansion, and the risk of amputation. This is done through efforts to maintain the cleanliness and humidity of the wound area, control blood sugar levels optimally, and provide education on how to care for the feet and the importance of following the recommended treatment. In addition, this intervention also aims to reduce the pain felt by the patient, so that comfort increases, wound healing progresses better, and foot function is maintained.

The nursing implementation provided focuses on controlling blood sugar levels, wound care, and reducing pain experienced by clients with diabetes mellitus. Clients are guided to follow diabetes exercises

regularly as part of efforts to increase body metabolism and control blood glucose.

Health counseling was provided to improve the client's understanding of diabetes, including lifestyle management, the importance of adherence to therapy, and prevention of long-term complications. In addition, the client was also trained to perform wound care independently using proper, clean, and safe techniques.

In an effort to manage pain, non-pharmacological therapies such as applying soothing warm compresses during pain and soaking certain parts of the body in warm water to help muscle relaxation and increase comfort are applied.

Monitoring of blood sugar levels is done through regular KGD checks. In addition, food intake is monitored to ensure that the amount and type of food consumed is in accordance with the client's needs and does not trigger blood sugar spikes.

In the nursing evaluation of the first diagnosis on Friday, March 28, 2025 nursing care, the patient still complains of thirst and still often tubs, physically, the patient looks tired and lethargic, however, in terms of understanding the condition of diabetes he is experiencing, able to explain and remember the types of foods that must be avoided to maintain blood sugar stability.

On the last day of evaluation for the second diagnosis, the patient's skin condition still showed redness, although it was not getting worse. There was considerable improvement, especially in terms of skin hydration starting to improve. In addition, blood flow to the tissues also showed an increase, indicating that the healing process was starting to move in a positive direction. Although not fully recovered, the patient's body is starting to respond better to the treatment given.

On the last day of evaluation for the third diagnosis, the patient still felt pain on the soles of his feet, although the complaint had not completely disappeared, the patient already understood the steps that needed to be taken when pain appeared. She

explained that she would apply a warm compress as a way to relieve the pain. This shows that the patient not only heard, but also remembered and understood the education provided earlier

Discussion

The patient studied was an elderly woman named Mrs. R, aged 71 years. She came from the Javanese tribe and embraced Islam. The last education taken is the secondary school level (SMA). During the assessment process, information was obtained directly from the patient who was in a fully conscious condition. Based on the patient's statement and the results of the medical examination, it is known that the main assessment of the overall health condition.

Mrs. R, a 71-year-old woman, presented with chief complaints of head fatigue, lethargy, frequent thirst, and frequent consumption of large amounts of water. Vital signs examination showed breathing frequency of 23 beats per minute, heart rate of 88 beats per minute, blood pressure of 120/80 mmHg, and blood glucose level of 284 mg/dL. This clinical picture suggests hyperglycemia, which is common in patients with type 2 diabetes mellitus.

Mrs. R explained that the complaints started since she entered old age, about five years ago. He also informed that his family has a similar history, which is suspected to be a precipitating factor in the emergence of this disease. As a form of self-management, the patient regularly participates in diabetic gymnastics activities to help maintain stable blood sugar levels and improve body fitness.

The decision to live in a social institution was made of his own free will, with assistance from his nephew who escorted him on January 11, 2020. The patient said that he felt more comfortable in a supportive environment and hoped to live his old age more happily and productively.

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and environment. Past Medical History showed that the patient had a chronic medical condition, diabetes mellitus, which was diagnosed previously. However, the patient had no history of hospitalization or intensive care in the hospital.

In terms of psychosocial aspects, the closest and most frequent individual interacting with the client is his nephew. Currently, there are no significant problems that directly affect the client's emotional or social conditions. In dealing with stress, the client tends to apply constructive coping strategies, such as trying to solve problems rationally and establishing social interactions through socializing with friends in the surrounding environment.

a. Nutrition

The client has a fairly regular diet, with a frequency of food consumption of three times a day. Appetite is good and stable, with the types of food consumed generally in the form of rice and side dishes, the client avoids sweets as a form of compliance with restrictions related to his medical condition, namely diabetes mellitus. No special habits were found before eating. Based on anthropometric data, the client's current weight is recorded at 63 kg with a height of 163 cm.



b. Elimination

In terms of urinary elimination, the client urinates six times a day with clear urine color and without complaints. The frequency of defecation is regular, namely once every morning around 5 o'clock, with characteristics of yellow feces, smell of has, and normal consistency. There were no complaints related to the defecation process, and the client also did not have a history of using laxatives.

c. Higience personal
The client showed good awareness of personal hygiene. He showers three times a day using soap. Oral hygiene is maintained by brushing her teeth three times a day, in the morning, afternoon and evening. Hair is washed regularly every 2 days with shampoo, and always keeps nails clean by cutting nails once a week.

d. Rest and sleep

The client's sleep quality was good. He slept for 7 hours per day at night and supplemented his rest needs with a 2-hour nap each day. The client did not experience any night sleep disturbances.

e. Activities and Exercises

The client is physically active and regularly exercises in the form of gymnastics twice a week. In his spare time, the client chooses to socialize with friends as a form of positive social interaction. During daily activities, the client did not complain of any interference, either in body movement, dressing, or other personal activities.

f. habits

The client does not smoke or consume alcoholic beverages. He also showed no signs of addiction to addictive substances. However, the client regularly takes medications to control his diabetes mellitus, namely

amlodipine, glibenclamide, and metformin, which have been used consistently for the past five years.

In general, the client appeared to be in good health with compos mentis consciousness. Vital signs were within normal limits, with a blood pressure of 120/85 mmHg, respiratory rate of 22 beats per minute, and heart rate of 88 beats per minute. Physical examination showed clean hair without excessive loss and no abnormalities found on the scalp. Eyes, nose, and ears appeared symmetrical; ear canals were clean, no swelling, and hearing function was within normal limits. The mouth and throat are clean, without complaints. No enlargement of the thyroid gland is palpable in the neck. The chest is symmetrical and free of lesions. Breasts showed no lumps or pain. Respiratory examination revealed normal vesicular sounds with no additional sounds. However, there is a wound on the leg that requires further attention.

The client demonstrated good cognitive function, with intact orientation to time, person and place. Both short-term and long-term memory were observed to be good. Eye contact is adequate during interactions, and affective responses are appropriate to the situation, reflecting a stable emotional state.

The client showed an optimal level of independence in carrying out basic daily activities. He was able to bathe, dress, use the toilet, maintain continence, transfer positions, and eat independently without assistance. Thus, the client's level of independence can be categorized as fully independent.

Based on the results of the interview using the SPMSQ instrument, the client was able to answer all questions correctly. He knows the current date and day, recognizes the location of residence, mentions the address of origin, age, and year of birth correctly. The client



was also able to name the current and previous President of Indonesia, and answer questions about his biological mother's childhood name. In addition, the client was able to complete a simple counting task (repeated subtraction from 20) without difficulty. These results showed that the client's cognitive function was in the normal category with no indication of disorientation or dementia.

Diagnosis Instability of blood glucose levels associated with insulin resistance is evidenced by the patient saying that he often urinates, often feels thirsty, looks weak and lethargic, current KGD: 284 mg/dl. Skin Integrity disorders related to peripheral neuropathy are evidenced by the patient saying that he has a wound on his leg from 2021, visible tissue and skin damage, visible redness of the wound. appear painful. Acute Pain is related to physiological Injury Agent as evidenced by the patient saying pain in the leg, pain scale: 4.

Implementation is carried out in accordance with the planned interventions. The following implementation is in accordance with the 3 diagnoses that researchers get for Dx1 Identifying possible causes of hyperglycemia by monitoring food intake, Monitoring blood glucose levels with KGD examination with results of 101 mg / dl, Teaching diabetes diet compliance by providing dietary education, Teaching diabetic foot exercises according to the patient's ability, Providing education about diabetes mellitus, Explaining foods that should not be eaten such as eating sweet and excess food, Continue Dx2, Recognizing the causes of skin integrity disorders (peripheral death), Cleaning

wounds with warm water, Advise increasing fruit intake, Advise increasing nutritional intake such as fruits and vegetables. And Implementation of the 3rd Dx Observation of pain: on the sole of the left foot, appears suddenly, pain scale 4, Identifying the pain scale by looking at facial expressions, the patient said the pain was like burning, Identifying causes that alleviate and aggravate pain, Providing non-pharmacological therapy to reduce pain such as compressing with warm water, making the atmosphere comfortable, Teaching non-pharmacological techniques to reduce pain by soaking feet with warm water.

Here the researcher only concludes the evaluation of the results of the last day, namely day three Dx1 S : Mrs. R said she still felt thirsty and weak, already understood diabetes mellitus exercises, was able to re-explain education about diabetes mellitus, explained again the foods that could and could not be eaten, Mrs. R was on a low sugar diet, O : Looks weak and sluggish, already understands diabetes exercises, looks like she understands education about diabetes mellitus, looks like she is on a diabetic diet, Kgd: 101 mg/dl, A: Nursing problems partially resolved, P: Intervention continued by UPTD, evaluation Dx2 S: Mrs. R said the wound on the sole of the foot, O: the skin still looks reddish, Hindration increases, tissue perfusion increases, A: Nursing problems are partially resolved P: Intervention is continued by the UPTD, and for the 3rd Dx evaluation S: Mrs. R said she still felt pain on the soles of her feet, Mrs. R said she understood that if there was pain, do a warm compress, O: Provocation: Pain is felt when walking, Q: Quality: Pain feels like stabbing, Region: Diarea of the sole of the foot, severity: pain scale 2, Time: disappeared and arose, A: Top pain problems, P: Intervention continued by the UPTD.

Conclusion and Suggestion

Conclusion

Based on the results of a case study of nursing care for Mrs. R who suffers from type II diabetes mellitus at Wisma Melur, UPTD Social Services for the Elderly Binjai, it can be concluded that the nursing care process has been running comprehensively. Assessment shows that the patient experiences typical symptoms of DM such as frequent thirst, polyuria, and there are wounds on the feet. The three main nursing diagnoses raised were instability of blood glucose levels, impaired skin integrity, and acute pain. Interventions were arranged according to the priority of the problem, including glucose control, wound care, and pain management. Implementation went according to plan, followed by patient compliance in carrying out the diet. Evaluation showed significant improvement in both clinical and behavioral aspects of the patient, including an understanding of self-care and improved wound condition as well as more stable blood glucose levels.

Suggestions

From the results of this case study, researchers are expected to deepen their understanding and improve their skills in providing gerontic nursing care, especially in patients with diabetes mellitus. Nursing education institutions are expected to make these findings an additional reference in learning and developing a real case-based curriculum. In addition, UPTD Binjai Elderly Social Services is expected to strengthen health education programs and routine monitoring of elderly people

with diabetes through regular counseling, scheduled health checks, and active involvement of posyandu cadres in efforts to prevent complications and improve the overall quality of life of the elderly.

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