



NURSING INTERVENTION ON CHRONIC DISEASE PATIENT

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ABSTRACT

Chronic diseases, such as diabetes mellitus (DM), hypertension, and stroke, are the leading causes of global mortality that significantly affect patients' quality of life, both physically and psychologically. This study aims to explore the anxiety levels of patients with chronic diseases through a case study on Mr. S, a 59-year-old man with a history of DM, hypertension, and stroke. Data collection was carried out through interviews, observations, and physical examinations, as well as using the Health Anxiety Inventory questionnaire to measure anxiety levels. The instrument was tested validity and reliability, so that it can be used to measure anxiety in this study. Study design used case study with interview and quisioner. The data analysed 1) data collection 2) data presentation 3) data reduction 4) conclusion. The research results show that Mr. S has a low level of anxiety (23%) influenced by family support as the main support system, stable financial status, and guaranteed routine medication. The nursing interventions provided included relaxation techniques with lavender aromatherapy, family psychoeducation, and activity diversion. The implementation over two days resulted in positive changes in sleep patterns, anxiety levels, and physical complaints such as dizziness and tension. Family support has proven to play a crucial role in enhancing the patient's coping mechanisms, although supervision is still needed to prevent increased anxiety. This research highlights the importance of a holistic approach in chronic disease management, including psychological interventions, physical treatment, and social support to improve patients' quality of life.

Keywords: chronic disease; diabetes mellitus; health anxiety; nursing intervention; relaxation

INTRODUCTION

Chronic disease refers to a state of health that has long-lasting signs and is a major health issue that causes death globally. Data indicates that there are around 70,000 cases of chronic diseases that lead to death, mostly caused by people's lifestyle habits that tend to consume unhealthy foods and experience stress. It is predicted that by 2030, 150 million individuals will develop chronic diseases. The chronic diseases that most often trigger death in the world include heart disease, cancer, respiratory diseases, high blood pressure, and diabetes mellitus.

This is in accordance with data according to the World Health Organization (WHO) in 2022, chronic diseases cause death for 41 million individuals every year, which is 74% of total deaths worldwide. In addition, 77% of the total deaths due to chronic diseases occur in low- and middle-income countries, including Indonesia. Chronic diseases are generally experienced by older people, and for the elderly age group in Indonesia, the most common diseases suffered are hypertension and diabetes, with a prevalence of hypertension of 57.6% and diabetes of 4.8% (WHO, 2022).

Chronic disease problems can affect the well-being of individuals who experience them, especially in terms of mental health, namely anxiety. Anxiety is an emotional condition in which individuals feel threatened and uncomfortable with a certain situation or condition. The uncertainty that arises related to chronic diseases can contribute to feelings of anxiety, especially because some of these diseases can lead to death, anxiety can arise due to the development of diseases that are difficult to predict. People with anxiety disorders generally feel depressed, anxious, afraid, restless, tense, and uncomfortable. Various elements that may

be related to anxiety levels in people with chronic diseases include gender, age, ethnicity, marital status, educational background, income level, occupation, length of illness, time spent in hospital, reasons for hospitalization, previous stress experiences, physical activity levels, support from family, presence of complications, comorbidities, smoking habits, self-acceptance, and the level of spirituality of the individual . The aim of the study is to explore deeply on chronic disease patient.

METHOD

The method used is described as a case study. According to Robert Yin, a descriptive case study aims to describe a specific phenomenon; in this case, it is precisely for patients with chronic diseases in the Primary Health Care (Puskesmas) setting in Semarang City, November 25, 2024. This descriptive case study describes the nursing care. Observational data were gathered from one patient for two days. Data collection methods included verbal and nonverbal interviews with the patient and his family to gather subjective data, objective data from physical examinations, and additional hospital diagnostic data. The data analysed with four process collect data, describe data, data reduction and conclusion. Nursing interventions implemented were anxiety reduction strategies that utilized active listening, teaching relaxation techniques, diversionary activities with the patient to decrease tension, and psychoeducation with the family to provide on-going support to the patient.

The nursing care was provided through home visits by the nurse for two days. In these meetings, the nurse communicated and thoughtfully discussed with the patient her daily routine and problems with anxiety, while at the same time motivating immediate family members to continue their support within the patient's already existing support system. The nurse also taught the patient some relaxation techniques that incorporated lavender aromatherapy and religious chanting (sholawat). The evaluation showed some significant improvements in the patient over the intervention period. The improvements were in physical aspects, such as pain and mobility, as well as psychological aspects, for instance, decreased anxiety related to threats to self-concept due to advancing chronic illness. This was indicated by the patient having fewer concerns about their illness.

RESULTS

The results of the examination on a patient named Mr. S, 59 years old, the patient's medical diagnosis was diabetes mellitus, hypertension, and stroke. Pain is the most felt by patients; patients also feel swollen legs that are difficult to move and heavy after returning from hospitalization at Bhakti Wira Tamtama Hospital Semarang. Dry leg skin, and there are painful wounds. After an examination obtained blood glucose results: 213 mg/dl. Patient appeared to grimace, with pain assessment P: The patient said pain in the leg wound and headache, Q: The patient said pain like being stabbed, R: Pain in the left leg and head area to the nape of the neck, S: the patient complained of a scale of 4, T: disappeared every night. The patient said to have a history of diabetes mellitus and hypertension since 2002, and had a left parietal lobe cerebral infarction stroke (non-hemorrhagic stroke) from 2020. He was last treated at Bhakti Wira Tamtama Semarang Hospital on Saturday, November 23, 2024 with complaints of dizziness, weakness and fever. Mr. S lived in the same house with his wife, 3 children and other family members. At the time of the physical examination, the results of vision in the left eye worsened glaucoma, the cornea appeared red and isocor, there were incomplete teeth and dental caries, dry lip mucosa, abdomen with right and lower left quadrant distension, and intestinal noise 8x/minute, there was swelling in the extremities. Lower left, capillary refill 4 seconds, elastic skin turgor decreases, and turgor decreases, skin integrity damage there is a scaly rash blisters on the left leg, redness, swelling, watery blisters on the left leg in the finger area, muscle strength weakens on the left side.

In addition, the abnormal results of the assessment of Mr. S's health pattern using 11 patterns of the Gordon function, abnormal data were obtained, including the patient's health perception pattern saying that he often conducts health checks at the nearest health center, and if the treatment of wounds when sick is always assisted by his son who is a health worker, before being sick he eats 3 times a day, drinks 8 glasses often drinks iced tea, Eat rice, side dishes, vegetables, fruits, finish 1 serving of plates, when the patient is sick often eat coconut milk and fried foods, eat 3 times a day, drink 8 glasses, eat rice and side dishes; drink water; run out of 1 serving, the patient says he does not like eating vegetables and fruits, blood glucose 213 mg/dl, the patient's clinic has swollen legs, the patient's diet is on a salt diet, sugar diet patients. The patient's activity and exercise pattern complained of getting tired quickly, family-assisted activities, difficulty moving, the need for activity at level 3 (assisted by other people and tools), and sleep rest pattern when sick; the patient complained of a less comfortable sleeping state and restlessness because of the pain and swelling experienced. The patient said that he often woke up in the middle of the night when he woke up and cognitive perception patterns in pain, the patient's self-concept perception pattern feels that he cannot enjoy life to the fullest because he is focused on health care, such as blood sugar control and taking medication.

Tabel 2.
Nursing Evaluation

| Diagnosis | Day 1 | Day 2 |
|-----------|---|---|
| Anxiety | <p>S: The patient said that he was always accompanied by his family when his illness recurred, such as wound care by his son, who is a health worker, and all the families of the son-in-law at home.</p> <p>O: The patient shows openness in sharing his feelings and concerns, the patient shows a willingness to discuss the perceived stressor, and the patient looks more comfortable during the implementation because of the adequacy of the audiophile atmosphere.</p> <p>A: Anxiety related to threats to self-concept (progressive chronic disease) has not been addressed.</p> <p>P: Continue the intervention.</p> <ul style="list-style-type: none"> - Monitor the success of complementary therapies and relaxation that have been given with lavender aromatherapy and sholawat. - Evaluating relaxation technique exercises against sleep patterns - Practice diversion activities to reduce tension (watching television with family) - Accompanying patients to reduce anxiety - Encourage families to stay with patients and always support them. | <p>S: The patient says he is still awake but can be diverted by the relaxation he is taught</p> <p>O: Patients appear to be less anxious and always listen when nursing is implemented.</p> <p>A: Anxiety related to threats to self-concept (progressive chronic disease) has not been addressed.</p> <p>P: Continue the intervention.</p> <ul style="list-style-type: none"> - Encourage families to stay with patients and always support them. - Always activate relaxation techniques independently. |

The patient's self-image said that he felt unconfident because his body was not what it used to be due to physical changes due to complications of DM (wounds). Facial expressions showed worry or sadness, especially when talking about his health condition, the patient said he was afraid of becoming a burden on his family if his health condition worsened. The patient's ideal self is that he feels unmotivated because his health condition makes him unable to carry out daily activities as before the illness, the patient's posture shows a lack of confidence, such as sitting

hunched over and minimal eye contact, the patient's self-esteem complains of often feeling anxious about his health condition, the patient feels anxious every time he sees unstable blood sugar levels. Even though they have tried to manage their diet, the patient often seems to rub their head or sigh deeply during the study, there is a limited activity due to pain and nerve damage, such as difficulty walking or using certain limbs, the patient's self-identity expresses a feeling of loss of identity since being diagnosed with DM because they have to live a different lifestyle. The patient seems confused or reluctant to explain about himself, social roles, or life goals. The coping mechanism and tolerance to stress of patients said more sleep was to reduce pain and overthinking. The results of the Health Anxiety Inventory Questionnaire were 23% that patients with low anxiety

DISCUSSION

Chronic diseases that last for a long time, usually require long-term treatment. Diseases that tend to develop slowly so that they can last for many years, for a lifetime and have the highest cause of death (Mufidah et al., 2024). These conditions include a variety of disorders of the cardiovascular system (heart and blood vessels), diabetes, hypertension, stroke, cancer, and respiratory disorders (CPDs), which significantly affect an individual's quality of life. The results of data analysis on this patient found several chronic diseases suffered, including diabetes, stroke, and hypertension, each of which has a significant impact both physically and psychologically. Diabetes mellitus type 2 is a disease of instability of blood glucose levels that attacks the endocrine system against insulin production, this condition causes negative psychological reactions, including anger, feelings of worthlessness, increased anxiety, and depression. Anxiety causes glucose to rise drastically so that symptoms and more severe effects arise on the patient's condition such as macrovascular and microvascular complications, blindness, kidney disease, and amputation

Hypertension is a silent killer disease that increases blood pressure from normal limits so that it affects the physical and psychological aspects of morbidity such as the risk of stroke and mortality, the level of knowledge, the duration of the disease, including those that cause feelings of worry and fear of death so that the higher the anxiety disorder. According to the World Health Organization, stroke is a condition in which rapidly developing clinical signs are focal and global neurological disorders, which can be aggravating, persist for 24 hours or more, or can lead to unexplained death, other than vascular disorders. Problems arising from stroke are paralysis or weakness of the limbs, which can interfere with daily activities, and they can also experience sensory problems (sensory apparatus), or problems controlling urination and defecation. Stroke has psychological impacts, such as depression and anxiety, which can affect the quality of life of stroke sufferers.

The results of the data analysis showed that patients were indicated for anxiety with subjective data, patients often felt anxious about their health condition even though they had tried to manage their diet. The patient said that he felt unconfident because his body was not what it used to be, due to physical changes due to complications of DM (wound). Impaired skin and tissue integrity, such as chronic wounds around the lower ankle can affect psychological conditions, increase the risk of morbidity, mortality, and decrease quality of life. Anxiety in patients is also characterized by the patient's facial expression looking restless, sad, when sick the patient complains of uncomfortable sleeping because of the pain and swelling experienced, the patient often wakes up in the middle of the night and wakes up, the patient sleeps more during the day for pain distraction and a lot of thoughts. From a psychological point of view, patients with diabetic ulcers often experience stress and anxiety due to infection in the wound. This condition can increase blood glucose levels and is at risk of triggering diabetic ketoacidosis or non-ketotic hyperglycemia.

In addition, patients complain that their sleeping state is not comfortable because of the pain they feel, patients often wake up in the middle of the night and wake up. Chronic pain felt by patients stems from inflammation in the leg wounds due to complications and neurological conditions of the patient. According to the American Pain Society, pain is defined as unpleasant sensory and emotional feelings related to tissue damage, both real and potential. Physical mobility disorders resulting from a stroke experienced by patients that cause hemiparesis on the left side of the body, restrict movement and increase the risk of complications in various body systems, including neurosensory, which can lead to sensory deprivation, behavioral changes such as changes in roles, self-concept, and increased anxiety can also occur due to immobility. Behavioral changes as a result of immobility, including hostility, confusion, anxiety, high emotionality, depression, changes in sleep cycles and decreased coping mechanisms, behavioral changes due to the impact of immobility because during the immobility process a person will experience changes in roles, self-concept, anxiety, constipation and others.

In patients with chronic diseases, such as Diabetes Mellitus (DM), stroke and hypertension, where the challenges in managing the disease are complex. That patients with DM with complications and hypertension have a higher risk of developing anxiety. Factors such as drastic lifestyle changes, the need to adhere to long-term medication, unexpected health complications, as well as uncertainties related to the prognosis are the main triggers. The coping mechanism possessed by the low anxiety group has a positive influence on him, so that the level of anxiety he experiences is only at low level anxiety. Mr. S who experienced anxiety related to the threat to self-concept due to progressive chronic diseases based on the Health Anxiety Inventory Questionnaire with a final score of 23 (low anxiety), the patient said that there was a support system from all family members that was adequate enough to provide a sense of security and help in managing the patient's emotions, and his child who is a health worker, there were no financial problems so that routine treatment was guaranteed with insurance.

From the above statement, chronic diseases require complex management, including regular treatment, lifestyle changes, and regular health monitoring. Additionally, patients with chronic illnesses often have to adapt to a variety of challenges, both physical and psychological, that can affect their overall well-being. The cause of complications is more serious, so it is important for patients to get adequate medical support, support for the system of close people and family and psychological. Support from the family has an effect on the physical and mental health of each individual, the family contributes to the state of health of patients suffering from chronic diseases such as diabetes mellitus. Support from family is closely related to the patient's compliance in maintaining health can reduce the adverse impact of stress or anxiety on the immune system, which can ultimately affect their quality of life.

Implementation There is a procedure that is carried out on patients with anxiety. Anxiety management and anxiety reduction are used to reduce anxiety by identifying when anxiety levels change (conditions, timing, stressors), identifying the patient's ability to make decisions, identifying situations that trigger anxiety, monitoring signs of anxiety (verbal and nonverbal), motivating and identifying situations that trigger anxiety, practicing diversion activities to reduce tension (watching television with family), encouraging families to stay with patients, and always supporting the patient. The patient also said that every time he was sick, all his family always took care of him because his son was also a health worker. Practice non-pharmacological relaxation techniques with lavender aromatherapy to be inhaled and applied to non-allergic skin areas. The scent of lavender has calming and antidepressant properties; inhaling this scent can stimulate alpha waves, which are related to relaxation, as well as help in overcoming sleep problems, maintaining physical balance, and reducing stress, headaches, and muscle spasms. Lavender flowers also contain lavender essential oil, which is used in aromatherapy to overcome anxiety, tension, mental stress, sleep difficulties, and fatigue. This

is in accordance with research conducted by Emil et al. in 2023; they provide lavender aromatherapy, which has been proven to reduce pain and anxiety levels as well as blood pressure.

Tabel 3.
 Intervensi Keperawatan

| SLKI | SIKI |
|--|---|
| Anxiety level (L.09093), After 2 x 5 hours of nursing intervention, anxiety is expected to decrease with outcome criteria: | Reduction of Anxiety (1.09314) |
| <ul style="list-style-type: none"> - Moderate confusion verification 3 to decrease 5 - Moderate worried verbalization 3 to decrease 5 - Moderate restless behavior 3 to decrease 5 - Moderate tense behavior 3 to decrease 5 - Complaints of dizziness increased moderately from 2 to moderately decreased 4. - Moderate concentration 3 to improve 5 - Sleep patterns worsened moderately 2 to moderately improved 4 - Medium blood pressure 3 to improve 5 | <p>Observation</p> <ul style="list-style-type: none"> - Identify when anxiety levels change (conditions, time, stressors). - Identify decision-making abilities - Identify situations that trigger anxiety - Monitor for signs of anxiety (verbal and nonverbal). <p>Therapeutic</p> <ul style="list-style-type: none"> - Create a therapeutic atmosphere to foster trust - Understand the situation that makes you anxious - Listen attentively - Use a calm and reassuring approach - motivating and identifying situations that trigger anxiety - Discuss realistic planning about up coming events <p>Education</p> <ul style="list-style-type: none"> - Nonpharmacological relaxation technique exercises with lavender aromatherapy and sound therapy - Practicing diversion activities to reduce tension - Accompany patients to reduce anxiety. - Encourage families to stay with patients and always support |

The results of the evaluation provided relaxation of lavender aromatherapy, prayer therapy, diversion of tension by watching television with family, and psychoeducation to always support every day. The intervenvention for 2 days from November 25 to November 26 in 2024, with psychoeducation and relaxation therapy provided improved effectiveness for openness in patient complaint, symptoms of sleep patterns, restlessness, dizziness and tension of patient. With family and psychoeducation to always support every day. The results that are in line with anxiety with chronic disease conditions of the elderly mostly experience minimal anxiety because, in addition to physical condition factors such as chronic diseases, there are still other factors such as age, gender, education, occupation, and family existence that affect patients in dealing with disease conditions so that coping mechanisms will also. In the opinion of the researcher, the increased coping mechanism can still experience anxiety, so it needs more attention to the supervision of families, the environment, and health facilities.

CONCLUSION

Based on the results of the case study on anxiety with chronic disease patients chronic diseases can cause physical and psychological diseases of patients need to be considered, for the whole community it is concluded that patients have low anxiety from the Health Anxiety Inventory questionnaire at the percentage of 23%, chronic diseases can cause physical and psychological

diseases, chronic diseases with serious complications, complex patient care does not affect the level of patient coping. Because there is a support system from all family members that is adequate enough to provide a sense of security and help in managing emotions, there are no financial problems so that routine treatment is guaranteed with insurance. The existence of therapy provided such as training patients with lavender aromatherapy relaxation has an effect on the quality of patients' sleep improves, dizziness, anxiety and tension are reduced. the effectiveness of therapy that improves the quality of patient coping management.

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