Negative Self-Care Behaviours Among Diabetic Patients Bukittinggi, Indonesia

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KEYWORDS

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ABSTRACT

Diabetes mellitus is a chronic multifactorial endocrine disorder that affects approximately 5-10% of adults worldwide. In Indonesia, approximately 10.8 million people, which accounts for 10% of the population, suffer from diabetes. The current treatment considered suitable for diabetes management involves self-care management. Self-management plays a crucial role in achieving blood sugar control, reducing complications, improving quality of life, and lowering hospitalization rates. Negative self-care behaviors frequently observed among diabetes patients include consuming high-fat foods, sugary snacks, non-adherence to diabetes diet protocols. These unhealthy habits make it more difficult to regulate one's own health, which increases the risk of morbidity and death, uncontrolled blood sugar levels, and a decline in quality of life. The purpose of this study is to identify poor self-care practices among type 2 diabetes patients in the Bukittinggi health facilities' service region. Using a deliberate sample technique, a qualitative descriptive study was carried out in seven operational regions of the community health clinics in Bukittinggi, Indonesia. Participants were interviewed in semi-structured interviews, and a chollezi was used to analyze the data. There were 15 people in all, ages 30 to 69, who participated in this study. The participants had been diagnosed with diabetes for a duration of 2 to 21 years. The study identified four themes: unhealthy dietary behaviors, poor medication adherence, preference of unstandardized based herbal medicine, and surrender to Diabetic. Future research should focus on developing appropriate interventions and health promotion strategies

1. Introduction

Diabetes mellitus is a chronic multifactorial endocrine disorder that affects approximately 5-10% of adults worldwide (Alkhormi et al. 2022). It can significantly impact a patient's life, leading to complications and life-threatening situations if not promptly and appropriately managed. According to the International Diabetes Federation (IDF, 2022), around 6.7 million deaths were attributed to diabetes in 2021. In Indonesia, approximately 10.8 million people, which accounts for 10% of the population, suffer from diabetes (Sofiene et al., 2024). The current treatment considered suitable for diabetes management involves self-care practices. Self-management plays a crucial role in achieving blood sugar control, reducing complications, improving quality of life, and lowering hospitalization rates (Soelistijo, 2020; Idris, 2020); Suleiman et al., 2022; Pan et al., 2023). Complex behaviors like medication adherence, blood glucose monitoring, food regulation, regular physical exercise, stress management, and information acquisition are all part of self-care management (Neelima et al., 2024). (Chen et al. 2022; Oluchina and Karanja 2022). However, previous studies have found that many diabetes patients only focus on medication and blood glucose monitoring (Chaidir, Wahyuni, and Furkhani 2017). Negative self-care behaviors frequently observed among diabetes patients include consuming high-fat foods, sugary snacks, non-adherence to diabetes diet protocols (Srywahyuni, Amelia, and Zulita 2021), lack of motivation, self-awareness, knowledge, communication, emotional stress, and social support (Amelia et al., 2018; Adi R.P et.al 2019). These unhealthy habits make it more difficult to regulate one's own health, which increases the risk of morbidity and death, uncontrolled blood sugar levels, and a decline in quality of life. (Shi C et al. 2020). It is essential to identify negative self-care behaviors in diabetes patients to ensure proper self-care management.

Although numerous benefits of self-care management have been proven and it is considered a key to successful diabetes treatment, not all patients exhibit positive behaviors in all aspects of diabetes management (Chaidir, Wahyuni, and Furkhani 2017; Chen et al. 2022). Earlier research has recognized different obstacles, encompassing demographic and objective aspects (e.g., insufficient health education, limited access to insulin treatment, infrequent hospital visits, and the lack of blood glucose meters) as well as subjective factors (such as low self-efficacy and reduced social support) (Chen et al. 2022; Shi C et al. 2020). Other hindrances include skill deficits in self-care management and emotional distress (Oluchina and Karanja 2022; Whittemore et al. 2019). Most of these barriers lead to negative self-care behaviors, which affect treatment adherence and self-care activities, influencing patients'

ability to manage their condition and leading to a decreased quality of life (Kassaming, Fadli, and Marzuki 2022; Uly, Fadli, and Iskandar 2022).

Many studies have primarily focused on barriers to self-care management, but very few have concentrated on self-care behavior itself. However, as stated by (Kassaming, Fadli, and Marzuki 2022), The first step in assisting patients in achieving improved illness control is to improve their self-care practices. It is essential to comprehend the factors impacting diabetic patients' self-care behavior because doing so can help with the development and reinforcement of self-care behavior interventions, which can enhance overall illness management and reduce complications. In Bukittinggi, the implementation of self-care management is still categorized as low (16.1%), average (66.5%), and good (17.4%) (Srywahyuni, Amelia, and Zulita 2021). These findings indicate that many diabetes patients still exhibit negative self-care behaviors, which necessitates further research to identify the specific forms of such negative behaviors (Alamer et al., 2024). This study aims to identify poor self-care practices among type 2 diabetes patients in the Bukittinggi health facilities' service region. In the next, result of this research explanation can use by primary health care to choose alternative right intervention to solve the problem about negative self-care behavior (Bobir et al., 2024). furthermore, this research will contribute the way how to prevent the complication of diabetic if the negative self -care behavior in Bukittinggi have been explore.

2. Methodology

The seven operational regions of the community health centers in Bukittinggi, Indonesia, served as the study sites for this qualitative descriptive investigation. From the viewpoint of the research subjects or participants, the qualitative technique was selected in order to properly grasp certain social or human problems or information pertaining to cultural values, attitudes, behaviors, and social circumstances within a particular society. Qualitative description is a naturalistic inquiry method that uses low-inference interpretations to communicate findings in understandable terms. It offers the chance to look at health problems in vulnerable groups affected by complex clinical and cultural factors that influence health outcomes and how they interact with the healthcare system. Understanding these elements from the perspective of people who are coping with a certain illness can help with intervention development and improve clinical care (Creswell and Creswell 2018).

The Ford De Kock University Institutional Review Board gave the research the proper approval. Members of the study team had never before interacted with clinic administrators, medical staff, or patients. Distribution of leaflets with study information was made to eligible type 2 diabetic participants. They set up an appointment for an interview and informed consent if you were interested. In all, fifteen people participated in this study. A intentional sampling strategy was used to choose the participants, who had to meet two requirements: (1) have had a type 2 diabetes diagnosis for at least two years; and (2) be undergoing treatment for diabetes mellitus. Adults with type 2 diabetes participated in semi-structured interviews to discuss their unfavorable experiences implementing self-care management. A multidisciplinary team with experience in nursing, public health, healthcare services, and the community healthcare system prepared the interview questions together. The interviews lasted an average of 37 minutes and were conducted at the residences of the participants. An experienced bilingual research assistant performed audio recordings of all the interviews in Bahasa Indonesia and verbatim transcribed the results. To maintain confidentiality, code numbers were given to the participants. The process of recruitment persisted until data saturation was reached. Participants were given pocket guides on diabetes self-care and management. The Collaizi method was used to examine the research's data. Unlike previous approaches, this one involves a second validation phase with participants after the Collaizi analysis is complete. Making ensuring the research findings accurately reflect the participants' life experiences is the goal of this stage (Creswell and Creswell 2018).

3. Results and discussion

In all, 15 individuals between the ages of 30 and 69 participated in this study. The individuals had been diagnosed with diabetes between the ages of two and twenty-one. All participants were married, and

they all practiced Islam as their religion. Among the participants, two were retirees, three were traders, three were teachers, and seven were unemployed. At the request of both participants, interviews were performed outside of Primary Health Care (PHC) during the study in the PHC working area. The interviews were conducted according to the comfort and preferences of the participants.

Unhealthy dietary behaviors

During the diet process, the participants did not avoid specific foods because they felt that not consuming them would lead to a loss, and they believed that following the recommended diet advice would not improve their condition or result in any changes to their blood sugar levels. One diabetes patient stated, "In my family, there is always a tradition of eating together, and the menu often consists of fatty and greasy foods in large quantities. So, I feel very unlucky if I have to eat with all the restrictions of the diabetes diet. Moreover, I am already accustomed to enjoying delicious foods" (female, age 36). Another participant mentioned, "The forbidden foods in the diabetes diet are the ones I like the most, such as meatballs, fried foods, and martabak. It is very challenging for me not to eat those foods, especially when they are readily available near my home" (female, 32). Two participants expressed that they were tired of the diabetes diet, finding it restrictive in terms of quantity, variety, and types of food available (male, 30, and female, 35). They revealed, "If I reduce my meal portions, I feel unsatisfied. Moreover, I am not allowed to snack. Eventually, I get bored with such a routine. It's better to eat as usual, and if there are diabetes symptoms, I'll just take the medication, and it will heal by itself." Dietary patterns play a significant role in diabetes management (Department of Endocrinology n.d.). Consuming the right foods at the right times is crucial in maintaining acceptable blood glucose levels. Knowing what foods to eat, when to eat them, and how much to eat helps diabetes patients monitor their blood glucose levels and keep them within a normal range. This provides patients with the confidence to lead a normal, healthy life and achieve their maximum potential. Following a healthy diet has gained international attention in recent years as a result of rising rates of overweight and obesity and the ensuing rise in chronic diseases linked to poor nutrition, particularly diabetes (Camille Guertina, Pelletiera, and Popeb 2020). Indeed, poor eating habits and other health-related behaviors have been linked to the rise in the prevalence of diabetes. Health practitioners can use treatments in primary care to address unhealthy behavior related to diabetes diet by encouraging positive behavior changes (Rigby et al. 2022). In order to support the lowering of blood glucose levels and the risk of complications, the management of type 2 diabetes should be focused on healthy eating and maintaining a healthy body weight. Dietary assessment is a crucial component of this approach. (Uzokwe, Ebenso, and Cade 2022). However, dietary information is frequently disregarded, despite the fact that achieving appropriate glycemic control requires at least some diet-related attention.

Poor medication adherence

In this study, participants did not regularly take their medications due to various reasons, such as forgetting to take the medicine because of busy work schedules, reducing the dosage, and fearing that taking medication might cause other illnesses. Participants (female, 63; female, 62; male, 40) shared their experiences, saying, "I usually take my diabetes medication in the morning before breakfast, but if I have a lot of work or if I am in a hurry in the morning, I often forget to take my medicine. Furthermore, when I am traveling, I often forget to bring my medication, and it's troublesome to have to carry it all the time." Some participants also mentioned, "I take my medicine only when I experience diabetes symptoms or if I slightly reduce the dosage. Usually, when I have one pill, I only take half of it" (male, 60; male, 58). Unsuitable work conditions have been linked to a higher probability of treatment non-compliance in earlier research. Due to hectic schedules and long workdays, patients occasionally neglect to take their medications on time, which causes diabetic patients to receive subpar care (Shahabi et al. 2023). (Rizki Romadhon, Yardi Saibi 2020) found that the most common reason for non-compliance with diabetes medication was forgetfulness. In relation to type 2 diabetes therapy, patient non-compliance with their treatment can lead to the failure to control their blood glucose levels, and if this condition persists, it may result in the development of both macrovascular and microvascular

complications. Chauke et al. (2022) stated that in high-income nations, the rate of adherence to long-term therapy for chronic diseases is believed to be 50%; in low- and middle-income countries, the rates are estimated to be lower. Based on the theory proposed by Morisky and Muntner, non-compliance with medication is caused by 1) carelessness, which refers to a patient's negligent attitude or neglect during the treatment period, such as missing scheduled medication intake aside from forgetting. High medication adherence can be observed from a person's careful and attentive behavior in controlling themselves to continue taking the medication. 2) Forgetting: high medication adherence can be assessed from a low frequency of forgetting to take the medication. Treatment planning includes medication schedules and check-up schedules. The purpose of treatment planning is to achieve recovery (Rizki Romadhon, Yardi Saibi 2020). Previous international studies have shown a connection between low medication adherence and patients' negative attitudes concerning taking chronic drugs and forgetting to take them (Chauke et al. 2022), and beliefs (Sweileh et al. 2014), They believed that doctors overprescribed the medications and that taking medication was bad for you. These ideas mislead people into taking their diabetic medications incorrectly. Additionally, research conducted in India revealed that the majority of participants reported forgetfulness as their primary reason for not taking their meds on a regular basis (Thapar et al. 2020). Actually, forgetfulness is a condition that calls for the patient's and family members' active participation, which the nurse can support by counseling and educating the patient about diabetes and the significance of medication compliance. Healthcare providers have a critical role to play in enhancing patient compliance, particularly when it comes to educating patients on long-term therapy.

Preference of Unstandardized Based Herbal Medicine

Based on in-depth interviews with all participants, it was found that they prioritize herbal medicine that has not been standardized over conventional medicine. They believe that using certain leaves or fruits can lower blood sugar levels, leading them to create their own traditional remedies based on widespread community suggestions. This preference is influenced by their surroundings, including family, friends, and neighbors who recommend the use of herbal medicine. For instance, one participant mentioned, "I received an herbal medicine recipe from a friend, which involved boiling cherry leaves. Many people have tried it, and it worked. The symptoms of high blood sugar disappeared... I boiled seven cherry leaves with a glass of water until it boiled, then drank it after it cooled down" (male, 45). Another participant said, "I haven't taken diabetes medicine for quite a while now. Currently, I only consume boiled bay leaves, cinnamon, and cherry leaves... Sometimes it lowers my blood sugar, and sometimes it fluctuates... The most important thing is that I feel fine and don't need hospitalization because of diabetes" (female, 46). The belief factor strongly influences one's decision to opt for traditional medicine. Trust and suggestions from external sources reinforce positive views and convictions, leading individuals to choose traditional remedies. Moreover, the perception that natural products have fewer side effects compared to conventional medicines contributes to the high usage of herbal medicine among many diabetes patients (Medyana, V., & Asriyadi, F., 2018). As a result, most participants do not regularly consume conventional medicine and instead replace it with non-medical remedies, often without knowing the correct dosage. They trust that herbal remedies, such as leaves, can effectively lower blood sugar levels without causing side effects (Susianty, S., Mahathir, M., Mailani, F., Malini, H., & Chan, C. M., 2021). On the other hand, the combination of herbal medicine and conventional drugs can be dangerous due to potential drug interactions resulting in adverse effects, as reported in some studies, which could lead to coma or even death (Rabai., et al., 2018). Research findings from (Damanti 2016) indicated that the motivation for seeking traditional treatment was rooted in misconceptions about conventional medicine, with patients fearing the negative impacts of continuous and high-dosage chemical medications for chronic diseases, especially when experiencing treatment failure. According to additional research, some diabetic patients mistakenly believe that using herbs can effectively lower blood sugar levels and alleviate the negative effects of taking prescription medications for the disease. In other cases, they even consider herbal remedies to be more successful than medical ones (Özkan and İlaslan 2023). In this context, strong support from family and the social environment of diabetes patients is essential in making the right

decisions for self-care behaviors. Therefore, it is crucial to assess the patient's attitude if they are having trouble adjusting to the combination of diabetic therapy and herbal medicine in order to ensure that nurses and other healthcare professionals are managing diabetes effectively. Besides that, the health care should to provide counseling about diabetic and how to use proper herbal medicine to change the incorrect attitude. Moreover, improving communication between healthcare providers in primary health care center and patients is crucial to ensure continuous and intensified support (Kelak, Cheah, and Safii 2018).

Surrender to Diabetic

Among the study's participants, five were elderly individuals, and three of them expressed a sense of surrender to their condition. These participants had been living with diabetes for two years. They believed that their current illness was a test from God that they had to accept. In their opinion, seeking treatment, following a healthy diet, or any effort would not cure or eliminate diabetes. One participant said, "I have grown accustomed to this illness. At the beginning of the diagnosis, I diligently took medicine and exercised, but I still ended up in the hospital... For the past year, I haven't taken any medicine, only exercise regularly, and occasionally I ignore dietary restrictions. Yet, my blood sugar levels don't always rise" (female, 37). Another participant stated, "Whether I take medicine or not, exercise or not, follow a diet or not, it doesn't make a difference to me. When I feel unwell, I seek treatment. When there are no symptoms, I act like an ordinary person" (male, 42).

Type 2 diabetes patients may experience negative adaptive responses to treatment and overall diabetes management, leading to a decrease in their ability to self-manage, such as seeking treatment, engaging in physical activities, and adhering to recommended diets (Alhaik et al. 2019). The adaptation process for diabetes patients takes time and requires specific steps, including the participants' ability to regularly control their blood glucose, maintain a proper diet, manage stress, and engage in optimal daily activities (Kusnanto, Arifin, and Widyawati 2020). From this study, it can be concluded that these diabetes patients, despite living with the condition for two years, have not fully adapted to their illness, resulting in a sense of surrender to the disease itself. This negative attitude of resignation hinders them from effectively implementing self-care management.

4. Conclusion and future scope

In conclusion, diabetic patients in Bukittingi, Indonesia, discovered detrimental self-care behaviors while putting self-care management into practice. Primary health care professionals in Bukittinggi need to pay attention to the poor self-care habits of their diabetic patients. The study found four themes: giving in to diabetes, choosing non-standardized herbal treatment, adhering to prescription regimens poorly, and unhealthy eating habits. The development of suitable therapies and health promotion tactics should be the main focus of future study. The results have important ramifications for primary care providers in terms of enhancing the management of diabetic self-care. Programs for diabetes self-management education (DSME) based on evidence must be made more widely available, taking into account socioeconomic determinants of health and expanding on ongoing global efforts to enhance T2D prevention, early detection, and treatment. Programs for DSMEs must address cultural attitudes, personal control, and inadequate health literacy.

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Conflict of interest

The study's authors declare that they have no competing interests

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