The Relationship of Disease Perception and Duration of Suffering to Self-Care Management in Patients with Diabetes Mellitus in Rimbo Recap Village, South Curup District, Rejang Lebong Bengkulu 2025

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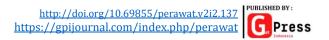*e-mail: adjieroestamadjie@gmail.com

ABSTRACT

Self-care management is a crucial element in Diabetes Mellitus (DM) control, but is influenced by internal factors such as disease perception and duration of illness. This study aims to analyze the relationship between disease perception and duration of suffering with self-care management in patients with DM in Rimbo Recap Village, South Curup District, Rejang Lebong Regency, Bengkulu Province. Methods: This research design is quantitative cross-sectional with a sample of 60 DM patients selected by purposive sampling from the patient list of the Watas Marga Health Center. Results: There is a significant relationship between disease perception (p = 0.002) and duration of suffering (p = 0.000) with self-care management in patients with DM. Conclusion: Continuous educational interventions and psychosocial strategies are recommended to improve positive perceptions and maintain long-term self-care behaviors.

***Keywords:** Illness Perception, Duration of Suffering, Self-Care Management, Diabetes Mellitus, Cross- Sectional*

INTRODUCTION

Diabetes mellitus (DM) is a non-communicable disease that has become one of the major challenges for the global health system. Based on data from the International Diabetes Federation (2021), it is estimated that more than 537 million people in the world are living with diabetes, and this number is projected to increase to 643 million by 2030. The disease has a significant impact on the quality of life of sufferers, as well as affecting long-term medical costs. In Indonesia, according to Riskesdas (2018), the prevalence of DM in the population aged ≥15 years reached 2.0%, with rates

continuing to increase from year to year. This increase in the number of people with diabetes shows the importance of effective disease management, one of which is through self-care management consisting of dietary regulation, physical activity, blood sugar monitoring, and adherence to medication.

Self-care management is one of the main keys in controlling Diabetes Mellitus, because patients who have good self-care behavior can reduce the risk of complications that often occur due to this disease. The factor that greatly influences self-care behavior is the perception of the disease owned by the patient. This perception includes the patient's knowledge about their health condition, attitude towards treatment, and understanding of the risks and complications that may occur if disease management is not carried out properly. Several studies have shown that a positive perception of the disease can increase the patient's motivation to take preventive measures and treatment more optimally (Salsabilla et al., 2022). Conversely, unfavorable perception or misunderstanding of the disease can lead to non-adherence to treatment and poor diabetes management.

In addition to perception, duration of suffering or the length of time a person has diabetes is also a factor that influences self-care management. Long duration of suffering may provide more experience in dealing with the challenges of the disease, which may encourage increased adherence to self-care. However, in some cases, people who have had diabetes for a long time may experience burnout or decreased motivation to carry out routine self-care, which may risk increasing complications (Fitriyani & Wahyuni, 2021). Therefore, it is important to explore the relationship between duration of suffering and effectiveness of self-care management in people with diabetes.

Based on data from the Bengkulu Provincial Health Office in 2023, there were 4,817 people with DM disease, in 2022 the number of people with Diabetes Mellitus in Bengkulu province reached 3087 cases (Bengkulu Provincial Health Office, 2022). The Rejang Lebong Regency Health Office recorded 574 people with DM in 2023, this data was collected from reports from 21 health centers and Rejang Lebong Regional Hospital. In addition, data from the medical records of Rejang Lebong Regional Hospital showed that the number of DM patients reached 2,312 people, with a prevalence of 0.81% at all ages, in 2022

Rimbo Recap Village, located in Curup Selatan Sub-district, Rejang Lebong Regency, Bengkulu Province, is an area with a population of approximately 1,331 people and one health facility available (BPS Rejang Lebong, 2023). Although the number of diabetics in this village is not specifically recorded, data from the Rejang Lebong District Health Office shows that in 2023 there were 574 people with Diabetes Mellitus and 1,208 individuals with pre-diabetes status throughout the district (Siberzone, 2023). With the increasing prevalence of this disease, educational efforts on self-care are essential, especially at the village level. The Poltekkes Kemenkes Bengkulu has implemented various self-care education programs, such as kampung sehat, which aims to empower communities in managing non- communicable diseases, including Diabetes Mellitus (Rakyat Bengkulu Online, 2023).

The role of good family communication is indispensable for care management in patients with diabetes mellitus. Formal and informal family roles are expected to help good management for people with diabetes mellitus, in the sense that family members play their roles and support diabetes mellitus care management. (Aji, 2023)

The involvement of family members directly to help diabetic patients is a form of support so that diabetes care management can run well. Diabetes management that is carried out properly is expected that patients can maintain normal sugar levels. Family support will help increase knowledge about diabetes and provide motivation. Specifically, the presence of adequate family support has been shown to be associated with reduced mortality (Aji et al., 2024).

However, not many studies have specifically examined the relationship between illness perception, duration of suffering, and self-care management in rural areas such as Rimbo Recap Village. This study aims to fill this gap and provide deeper insights into the factors that influence diabetes management at the village level.

METHODS

This study used a quantitative approach with a cross-sectional design to examine the relationship between disease perception, duration of suffering, and self-care management in people with Diabetes Mellitus. The study population was all DM patients registered at the Watas Marga Health Center, and a sample of 60 respondents was taken through purposive sampling technique with inclusion criteria: aged ≥18 years, diagnosed with DM at least 6 months earlier, and willing to fill out the questionnaire. Data collection was conducted with a structured questionnaire consisting of: (1) a disease perception scale adapted from the Health Belief Model (10 items, Likert 1-5), (2) a duration of suffering record sheet (years since diagnosis), and (3) a self-care management scale measuring four subdimensions-diet, exercise, medication, and blood sugar monitoring (20 items in total, Likert 1-5). The instruments were tested for content validity by community nursing experts and tested for reliability with Cronbach's alpha ($\alpha \geq 0.70$).

RESULTS

A. Distribution of Disease Perception in Patients with DM

Table 1. Distribution of Disease Perception in DM Patients in Rimbo Recap Village

Disease Perception	Frequency (n)	Percentage (%)
Good	35	58.3 %
Not so good	25	41.7 %
Total	60	100%

Table 1 shows the distribution of disease perception in patients with diabetes mellitus (DM) in Rimbo Recap Village. Of the total 60 respondents, the majority had a good perception of their disease, as many as 35 people (58.3%). Meanwhile, 25 people (41.7%) had unfavorable perceptions. These results indicate that more than half of people with DM in the area have a positive understanding or

view of their health condition, which can affect their compliance in undergoing disease management.

B. Distribution of Duration of Suffering in Patients with DM

Table 2. Distribution of Duration of Suffering in Patients with DM in Rimbo Recap Village

Duration of Suffering	Frequency (n)	Percentage (%)
< 5 years	28	46.7 %
≥ 5	32	53.3 %
Total	60	100 %

Table 2 presents the distribution of duration of suffering in patients with diabetes mellitus (DM) in Rimbo Recap Village. Of the total 60 respondents, 32 people (53.3%) had suffered from DM for ≥ 5 years, while 28 people (46.7%) had suffered from DM for < 5 years. This result shows that the majority of respondents are long-term DM sufferers, who most likely have more experience in dealing with the disease and may also have been exposed to more education and medical treatments related to diabetes management.

C. Distribution of Self-Care Management

Table 3. Distribution of Self-Care Management in Rimbo Recap Village

Self-Care Management	Frequency (n)	Percentage (%)
Good	38	63.3 %
Less Good	22	36.7 %
Total	60	100 %

Table 3 shows the distribution of self-care management in patients with DM in Rimbo Recap Village. Most of the respondents, namely 38 people (63.3%), had good self-care management, while 22 people (36.7%) were classified as poor. This finding indicates that most patients have been able to perform adequate self-care, which reflects the level of awareness and responsibility for their health conditions.

D. Relationship between Illness Perception and Self-Care Management

Table 4. Relationship Between Illness Perception and Self-Care Management in Rimbo Recap Village

Disease Perception	Self-Care Management				Total		P Value
	Good		Less Good				
	n	%	n	%	n	%	
Good	30	50 %	5	8.3 %	35	58.3 %	
Less Good	8	13.3 %	17	28.3 %	25	41.7 %	0.001
Total	38	63.3 %	22	36.7 %	60	100 %	

Table 4 shows the relationship between disease perception and self-care management in people with Diabetes Mellitus in Rimbo Recap Village. Of the 60 respondents studied, the majority of respondents who had a good perception of the disease also showed good self- care management behavior, as many as 30 people (50%). Only a small proportion of this group, namely 5 people (8.3%), had good perceptions but performed poor self-care. In contrast, among respondents who had a poor perception of the disease, most showed poor self-care management behavior, namely 17 people (28.3%), and only 8 people (13.3%) of them continued to take good self-care.

Overall, the data showed that out of a total of 60 respondents, 38 people (63.3%) performed self-care management well, while 22 people (36.7%) were classified as poor in performing self-care. The p-value generated from the statistical test was 0.001, which is well below the significance thresholdof 0.05. This indicates that there is a highly statistically significant relationship between illness perception and self-care management.

E. Relationship Between Duration of Suffering and Self-Care Management

Table 5. Relationship Between Duration of Suffering and Self-Care Management in Rimbo Recap Village

Duration of Suffering	Self-Care Management				Total		P Value
	Good		Less Good				
	n	%	n	%	n	%	
< 5 years	25	41.7 %	3	5.0 %	28	46.7 %	0.000
≥ 5 years	13	21.6 %	19	31.7 %	32	53.3 %	
Total	38	63.4 %	22	36.7 %	60	100 %	

Table 5 illustrates the relationship between duration of Diabetes Mellitus and self- care management in the community in Rimbo Recap Village. Of the 60 respondents, 28 people had suffered for less than 5 years, and of these, 25 people (41.7%) had good self-care management, while only 3 people (5.0%) were poor. Meanwhile, of the 32 respondents who had suffered for 5 years or more, only 13 people (21.7%) had good management, while the rest, namely 19 people (31.7%), had poor management. The statistical test results showed a p value = 0.000, which means that there is a highly significant relationship between the duration of suffering from Diabetes Mellitus and the ability to carry out self-care management. This shows that the longer a person suffers from the disease, it is not always accompanied by an increase in the ability to manage self-care - in fact, it tends to decrease.

DISCUSSION

A. Relationship between Illness Perception and Self-Care Management

The statistical test results showed that there was a significant relationship between disease perception and self-care management, with a p value = 0.001 (p < 0.05). This indicates that the better a person's perception of their illness, the better their ability to manage self- care. Based on the research

results shown in Table 4, it can be concluded that there is a significant relationship between disease perception and self-care management in people with Diabetes Mellitus in Rimbo Recap Village. Respondents who have a good disease perception tend to show better self-care management behavior compared to those who have a poor disease perception. This shows that an individual's understanding of their disease, including awareness of complications and the importance of care, greatly influences motivation and compliance in carrying out self-care such as diet, exercise, control of blood sugar levels, and compliance in taking medication.

This finding is in line with research conducted by Banowo (2023) which shows a significant relationship between disease perception and self-care behavior in type 2 Diabetes Mellitus patients in Padang City, with a p-value of 0.000. Similar results were also shown by the research of Salsabilla et al. (2022), which found that positive disease perception is closely related to increased self-management behavior in Diabetes Mellitus patients. This reinforces that good perceptions can be an important basis for forming adaptive health behaviors.

However, not all studies show similar results. Research by Ningrum (2011) at Gadjah Mada University showed that disease perception did not have a significant relationship to self-management in people with Diabetes Mellitus. Inconsistent results were also found in a study at RSI Surabaya, where there was no significant relationship between disease perception and self-care behavior (p = 0.321). This difference in results can be caused by variations in respondent characteristics, social environment, and educational approaches received by patients.

Thus, the results of this study emphasize the importance of enhancing positive perceptions of illness through education and appropriate approaches to better motivate patients to carry out self-care management. A strong understanding of the disease can help patients feel more responsible for their health and be able to control chronic conditions independently and sustainably.

B. Relationship Between Duration of Suffering and Self-Care Management

The statistical test results showed a p value = 0.000, which means that there is a highly significant relationship between the duration of suffering and the quality of self-care management (p < 0.05). This finding indicates that the longer a person suffers from an illness, it is not always accompanied by an increase in the ability to manage self-care, and even tends to decrease. This could be influenced by patient boredom with the treatment routine, lack of continued education, or a sense of hopelessness due to not seeing significant improvements in their health condition.

The results of this study are in line with research conducted by Siregar and Rahayu (2020), which showed a significant relationship between the duration of suffering from Diabetes Mellitus and self-care behavior. They found that patients with a shorter duration of suffering tend to have a better level of compliance because they are still in the adaptation period and motivation to recover is still high. In contrast, this result is not in line with the findings of Wulandari (2018), who stated that the longer a person has diabetes, the better

Their self-care management. The study highlighted that years of experience dealing with the disease actually increases the patient's skills and awareness in managing their health conditions.

This difference in results can be caused by environmental factors, differences in educational methods, and individual characteristics in accepting and undergoing the long- term care process.

CONCLUSIONS

Based on the results of research and discussion, it can be concluded that there is a significant relationship between disease perception and duration of suffering with self-care management in people with Diabetes Mellitus in Rimbo Recap Village.

First, respondents who have a good disease perception tend to have better self-care management, as evidenced by the p value = 0.001. This suggests that a positive understanding of the disease can encourage patient motivation and compliance in performing self-care consistently. This finding is supported by the research of Banowo (2023) and Salsabilla et al. (2022), but in contrast to the results from Ningrum (2011) and the study at RSI Surabaya, which showed no significant relationship. This difference in results may be influenced by the local context, educational approach, and respondent characteristics.

Second, the results on the duration of suffering show that the longer a person has diabetes, is not always directly proportional to the ability to manage self-care. Respondents with duration of suffering < 5 years actually showed better self-care management, with a p value = 0.000. This indicates the potential for burnout, decreased motivation, or lack of continued education in patients with a duration of ≥ 5 years. These results are in line with the findings of Siregar and Rahayu (2020), but contradict research by Wulandari (2018) which states that long-term experience can improve self-care skills.

Overall, these findings emphasize the importance of ongoing health education and adaptive psychosocial approaches to improve positive perceptions of illness and maintain effective self-care management, especially for those with longer durations of illness.

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