
FACTORS RELATED TO SELF-MANAGEMENT IN TYPE II DIABETES MELLITUS PATIENTS

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Article History

Received: November 2024

Revised:

Published: April 2025

Keywords

Age, Family Support, Self-management

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ABSTRACT

Introduction

Self-management is not easy; it requires knowledge, support, and strong or strong self-confidence. Activities that must be carried out by diabetes mellitus patients include regulating diet, using diabetes medication, checking or monitoring blood sugar levels, engaging in physical activity or exercise, and maintaining good foot care. This study aims to determine the factors associated with self-management in type II diabetes mellitus patients in Pauh Timur Village, within the Pariaman Community Health Center working area in 2024.

Method

This type of research is quantitative with a descriptive analytical design and a cross-sectional approach. The research was conducted from July 15 to 29, 2024. The research sample was determined at 33 people. Sampling was carried out using total sampling. Statistical tests used univariate analysis and bivariate analysis using Chi-Square.

Result

The results of the study showed that the majority of respondents, 25 (75.8%) were in the 45-59 year age range. More than half of the respondents, 19 (57.6%), had high knowledge. More than half of the respondents, 22 (66.7%), had high levels of support. More than half of the respondents, 23 (69.7%), had high self-efficacy. More than half of the respondents, 22 (66.7%), had good self-management.

Conclusion

The conclusion is that there is a significant relationship between age, knowledge, family support and self-efficacy with Self Management in type 2 diabetes mellitus patients in Pauh Timur Village in 2024. Suggestions in the study are expected that respondents can educate care management to be carried out independently and regularly by DM sufferers so that it can reduce the prevalence of type 2 diabetes mellitus in Pauh Timur Village, Pariaman Health Center Working Area in 2024.

INTRODUCTION

Chronic diseases are a very serious health problem and can cause the greatest number of deaths worldwide. One of these is diabetes mellitus (DM), which is a disease that arises from poor behavior and a poor lifestyle. Diabetes Mellitus (DM) is a disease that occurs due to excess sugar in the blood, causing sufferers to be unable to use insulin effectively or cannot produce sufficient amounts of insulin. In the last three decades, the prevalence of type 2 diabetes has increased drastically (Kurniawati & Budiarto, 2022).

The high incidence of diabetes can increase complications, based on Yoga's research in Widiarti, (2022) patients with diabetes mellitus have the highest hospitalization rate and an increased risk of harm and even death due to complications of diabetes mellitus such as stroke, blindness and amputation due to gangrene. To prevent complications from diabetes mellitus, it is necessary to control diabetes mellitus including education, dietary restrictions through Medical Nutrition Therapy (TPM), medication regimens, increasing physical activity/physical exercise. The results obtained show that regular exercise/physical exercise has a significant effect on the success of managing type 2 diabetes mellitus so that the factor that influences the success of managing type 2 diabetes mellitus is exercise by 40%. The above research can be understood that physical exercise is very important for type 2 diabetes mellitus patients.

Diabetes is a disease caused by the accumulation of glucose in the blood and

occurs because the body does not produce enough insulin, or cannot use insulin properly, which is characterized by typical symptoms, namely continuous urination (in large amounts) with a sweet taste (diabetes) (Maulina et al., 2022).

Self-management is the primary behavior and action taken by each individual to control diabetes mellitus, including treatment and prevention of complications (Mulya & Kosassy, 2020). Effective self-management can help control blood sugar levels in people with diabetes mellitus. Regular self-management practices can help maintain normal blood sugar levels, preventing complications from diabetes mellitus (Srywahyuni et al., 2021).

Based on data from the Pariaman Health Office in 2024 from 7 existing Community Health Centers, Pauh Timur Village is the first rank of DM sufferers with 527 people. Of the 527 sufferers in the Pauh Timur Village/Sub-district. Pauh Timur Village has the highest rank of DM sufferers, namely 33 people, second place is Kampung Perak Village with 31 people, Kampung Pondok Village with 30 people, then Pauh Barat Village with 16 people. The results of interviews with 10 people in Pauh Timur Village on March 10, 2024 showed that 2 DM patients had good self-management with controlled blood sugar levels, 6 DM patients had poor self-management and uncontrolled blood sugar levels, 2 other patients were inconsistent in maintaining good self-management.

MATERIAL AND METHOD

This research is a quantitative study using the correlation method, which aims to see whether there is a relationship between the independent and dependent variables. This study uses a cross-sectional approach, namely measurements of the independent and dependent variables are carried out simultaneously or at the same time (Sugiyono, 2020). This research was conducted in Pauh Timur Village from July 15 to 29, 2024. The population is a generalization area consisting of objects/subjects that have certain quantities and characteristics determined by the researcher to be studied and then

conclusions drawn (Sugiyono, 2020). The population in this study were sufferers of Type II Diabetes Mellitus in Pauh Timur Village, Pariaman Health Center Working Area in 2024, totaling 33 cases in 2024.

A sample is a portion of a population that shares the same characteristics as the population. The sampling technique used in this study was probability sampling with total sampling, a technique based solely on the researcher's judgment, but here the sample size and criteria are predetermined. In this study, the researchers selected a sample of 33 individuals with diabetes.

RESULT

1. Responden Gender

Tabel 1

Frequency Distribution of Respondent Characteristics Based on Gender in Pauh Timur Village, Pariaman Community Health Center Working Area in 2024 (n=33)

Gender	<i>f</i>	%
Female	24	72.7
Male	9	27.3
Total	33	100.0

2. Educational Responden

Tabel 2

Frequency Distribution of Respondent Characteristics Based on Education in Pauh Timur Village, Pariaman Community Health Center Working Area in 2024 (n=33)

Education	<i>f</i>	%
SMP/SLTP	12	36.4
SMA/SLTA	17	51.4
University	4	12.1

Total 33 100

3. Responden Job

Tabel 3

Frequency Distribution of Respondent Characteristics Based on Jobin Pauh Timur Village, Pariaman Community Health Center Working Area in 2024 (n=33)

Job	<i>f</i>	%
Wifehouse	15	45.5
Fisheries	1	3.0
Bussinesman	13	39.4
Goverment employe	4	12.1
Total	33	100.0

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1. Age

Tabel 4

Frequency Distribution of Respondents' Ages in Pauh Timur Village, Pariaman Community Health Center Working Area in 2024 (n=33)

Age	<i>f</i>	%
19-44 year (adult)	4	12.1
45-59 year (pra elderly)	25	75.8
60-70 year (elderly)	4	12.1
Total	33	100

2. Knowladge

Tabel 5

Frequency Distribution of Respondents' Ages in Pauh Timur Village, Pariaman Community Health Center Knowladge Area in 2024 (n=33)

Knowladge	<i>f</i>	%
High	19	57.6

Less	14	42.4
Total	33	100.0

6. Family Support

Tabel 6

Frequency Distribution of Respondents' Ages in Pauh Timur Village, Pariaman Community Health Center Support Area in 2024 (n=33)

Family support	<i>f</i>	%
High	22	66.7
Less	11	33.3
Total	33	100.0

7. Self-Efficacy

Tabel 7

Frequency Distribution of Respondents' Ages in Pauh Timur Village, Pariaman Community Health Center Self efficacy Area in 2024 (n=33)

Self efficacy	<i>f</i>	%
High	23	69.7
Less	10	30.3
Total	33	100

8. Self- Management

Tabel 8

Frequency Distribution of Respondents' Ages in Pauh Timur Village, Pariaman Community Health Center Self management Area in 2024 (n=33)

Self manajemen	<i>f</i>	%
Good	22	66.7
Less	11	33.3
Total	33	100.0

DISCUSSION

Responden Age

The results of the study conducted with 3 categories (Adults, Pre-elderly and elderly) in Pauh Timur Village, Pariaman Health Center Working Area showed that most respondents were in the age range of 45-59 years (pre-elderly) while with 2 categories (adults/pre-elderly) in Pauh Timur Village showed that most respondents were in the age range of 19-59 years (Adults/pre-elderly). Age is one of the factors that cannot be changed or avoided by individuals, the cause is that someone over 40 years old experiences a decline in body function so that the individual is easily at risk of health problems, one of which is DM. Although many researchers have revealed the high incidence of DM at the age of 40 years and

above, this does not rule out the possibility that individuals who are <40 years old can be diagnosed with DM where the incidence of DM is not only from age factors, but can occur from other factors.

Based on the results of this study, researchers assume that diabetes is a high risk for individuals over the age of 40. Increasing age will hinder individuals' ability to engage in physical activity. When the body is active, it affects glucose utilization, resulting in muscles working harder than those who are inactive. One of the pillars of diabetes management is physical activity, which aims to improve insulin sensitivity, thus helping glucose be absorbed by the body's cells.

Responden Knowledge

The results of a study conducted in Pauh Timur Village, within the Pariaman Community Health Center (Puskesmas) working area, showed that more than half of the respondents had a high level of knowledge. This is because the majority of respondents had higher education, with more than half having a high school education. This is in accordance with Donsu's (2017) theory, which states that education level also determines how easily someone absorbs and understands the knowledge they acquire. In general, the higher a person's education, the better their knowledge and the easier it is to accept.

From the results of this study, the researcher assumes that individuals with higher education are generally responsive, have an interest and concern for the health of both themselves and their families, especially the families of respondents with diabetes. They are also responsive in solving existing problems and have a desire to explore knowledge from other sources. Likewise, someone with a low education does not necessarily mean having a low level of knowledge. The level of knowledge is not necessarily obtained from formal education, but can be obtained through non-formal education, namely gaining understanding and insight by reading many sources of information.

Family Support

The results of a study conducted at the Pauh Timur Community Health Center within the Pariaman Community Health Center working area showed that more than half of the respondents had high levels of support. This was because their families were aware of the aspects of diabetes self-management that patients should undertake and that they had been with the patients for a long time. Some family members also accompanied the patients during visits to the community health center and to the doctor, thus ensuring a good level of self-care knowledge. Therefore, the greater the support provided by family members, the better the respondents' ability to self-manage type 2 diabetes mellitus.

Self Efficacy

The results of a study conducted in Pauh Timur Village, within the Pariaman Community Health Center (Puskesmas) working area regarding the self-efficacy of diabetes mellitus patients using a questionnaire showed that more than half of the respondents had high self-efficacy. This is because diabetes mellitus patients

Based on the results of this study, researchers assume that the application of high self-efficacy will influence a person's behavior. This involves behavioral choices, motivational efforts, resilience, facilitative thinking, and resistance to stress. High self-efficacy will enable an

Self Management

The results of a study conducted in Pauh Timur Village, Pariaman Community Health Center Working Area regarding self-management of diabetes mellitus patients conducted using a questionnaire

From the results of this study, researchers assume that good family support will influence a person in carrying out and complying with recommended diabetes mellitus self-care. The greater the family support given to a diabetes mellitus patient, the higher the patient's level of compliance in implementing the recommended diabetes mellitus self-care. Conversely, patients with less supportive family support may experience this because the family is unaware of the self-management that the patient must undergo, so they are unable to reprimand the patient when they do not comply with the recommended self-care.

have a strong belief in their abilities in every activity they undertake, are able to check their blood sugar regularly, are able to follow a healthy diet, have no difficulty in following a healthy diet in any situation, are able to choose types of food that are good for health, are able to carry out light activities that can support their health.

individual to determine activities they should undertake, such as those that can improve their health. Likewise, someone with low self-efficacy will display a resigned attitude and be unwilling to put forth the effort to accomplish something that could benefit them.

showed that more than half of the respondents, namely 22 (66.7%), had good self-care, this was because the activities carried out by diabetes mellitus patients included regulating diet, using diabetes

medication, checking or monitoring blood sugar levels, doing physical activities or sports, and doing good foot care.

Researchers concluded that self-management is not an easy thing to do, it requires good or high knowledge, support, and self-confidence that comes from within. This is proven in this study, the frequency of self-management respondents obtained good self-management as many as 44 (86.3%). This

is seen from the ability and obedience of respondents in participating in various activities that support their health improvement with the aim of controlling the amount of blood sugar that is too high in the body. Activities that must be carried out by diabetes mellitus patients include regulating diet, using diabetes medication, checking or monitoring blood sugar levels, doing physical activities or sports, and doing good foot care.

CONCLUSION

Most respondents were between 44 and 59 years old (pre-elderly) in Pauh Timur Village. More than half of respondents had high levels of knowledge in Pauh Timur Village. More than half of respondents had high levels of support in Pauh Timur Village. More than half of respondents had high levels of self-efficacy in Pauh Timur Village in 2024. More than half of respondents had good self-management in Pauh Timur Village in 2024. There was a relationship between age and self-management in type 2

diabetes mellitus patients in Pauh Timur Village in 2024. There was a relationship between knowledge and self-management in type 2 diabetes mellitus patients in Pauh Timur Village in 2024. There was a relationship between family support and self-management in type 2 diabetes mellitus patients in Pauh Timur Village in 2024. There was a relationship between self-efficacy and self-management in type 2 diabetes mellitus patients in Pauh Timur Village in 2024.

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