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UNPREPAREDNESS IN SELF-MANAGEMENT: A DESCRIPTION OF SELF-MANAGEMENT OF TYPE II DIABETES MELLITUS PATIENTS IN HEALTH FACILITIES

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ABSTRACT
Type 2 diabetes mellitus is a metabolic disorder caused by hyperglycemia. If uncontrolled, it can be fatal. Therefore, effective self-management and self-control activities are necessary for sufferers. Self-management includes behaviors related to diet, exercise physique, monitoring sugar blood And maintenance foot. This study aims to identify self-management on patient DM type 2 in Internal Medicine Polyclinic, Sekarwangi Regional Hospital. This study used a quantitative descriptive method with a survey approach. The instrument used to measure diabetes self-management was the DSMQ (Diabetes Self-Management Questionnaire) questionnaire adapted into Indonesian. The sample size of this study was 120 type 2 DM patients, using a quota sampling method, in accordance with established inclusion and exclusion criteria. Data analysis used in this study was descriptive univariate analysis. This study shows that the characteristics of respondents were on average 53 years old, had suffered from DM for around 4 years, 61.6% were female, 44.1% had secondary education, 65% were married, 80.8% were employed, 73.3% had no family history of the disease, and 74.1% of respondents had never attended DM education . Analysis score s elf-management shared into three category that is Good Enough And bad, The results of this study showed that respondents who performed self-management were fair (42.5%), good (29.1%), and poor (28.3). The average subscales were fair glucose management, adequate dietary control, poor physical activity, and poor health services. This indicates that most respondents have not performed self-management effectively. It is important for nurses to facilitate proper self-management for DM patients and implement specific programs for DM patients.

Keywords: diabetes type 2 diabetes mellitus; health facilities; self- management

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INTRODUCTION

Diabetes mellitus Type 2 (DM2) is one of the disease No contagious which becomes burden global health because its high prevalence, chronic progression, and potential serious complications. According to International Diabetes Federation (IDF), in 2021 there are more of the 10 million people in Indonesia who live with diabetes, and some big from they suffering from T2DM. Data from the 11th edition of the IDF Diabetes Atlas in 2025 states that , Indonesia occupies ranked 5th in the world in matter amount diabetes sufferers aged 20–79 years , with estimate reached 20.4 million people or prevalence of 11.0%. West Java is province with highest prevalence of DM second in Indonesia. Case trends show increase sharp +38% since 2021, driven by the style life sedentary and pattern undereating healthy . Regency Sukabumi occupy position seven big amount DM sufferers in West Java with amount 19,258 patients in 2023 .

Type 2 Diabetes Mellitus sufferers require holistic and integrative treatment, not only medical treatment but also treatment that focuses more on lifestyle changes that require DM sufferers to adapt as a whole and manage themselves well (Widiyati et al., 2023). Self-management is a crucial aspect that refers to the patient's ability to take responsibility for the daily management of their disease, such as regulating their diet, exercising, taking medication, and monitoring

their blood sugar. Patients with good self-management skills usually have more stable blood sugar control and are able to prevent long-term complications, which ultimately have a positive impact on their quality of life. (Nurhayati et al., 2020). The objectives of implementing self-management are divided into long-term and short-term goals. The short-term goal of implementing self-management is to eliminate symptoms and signs of diabetes, while the long-term goal of implementing self-management is to reduce complications. (Tursina et al., 2022)The success of a chronic disease management program cannot be separated from the individual's ability to access, understand, and use health information and services to make decisions about their health care, known as Health Literacy (Juariah, 2022). Self-management in patients with diabetes mellitus is very important because it plays a role in controlling the disease and preventing complications (Putri et al., 2022). The purpose of this study was to examine the correlation or relationship between self-management in type II diabetes mellitus patients undergoing treatment in healthcare facilities.

METHOD

The research plan used is quantitative descriptive which aims to identify the *Self-management Description* in Type 2 DM Patients in the Internal Medicine Polyclinic of Sekarwangi Regional Hospital. The sampling technique used was *non-probability sampling,* in the form of *quota sampling* , during field sampling. Quota sampling is a sampling method in which researchers select samples based on certain characteristics and a predetermined number of samples until the predetermined sample size is reached. (Husna, 2017). In this study, the sample used was DM sufferers who visited the Internal Medicine Clinic on July 8-11 2025. The size sample is as many as 120 patient, with using Slovin calculations. The instrument used to measure diabetes *self-management* uses the DSMQ *(Diabetes Self-Management Questionnaire) questionnaire* developed by Schmittetal in 2013, with a Cronbach's α coefficient of glucose management of 0.77, diet control of 0.77, physical activity of 0.76, and use of health services of 0.60, as well as a total scale on the α coefficient of 0.84. This questionnaire was translated from English to Indonesian which was carried out at the Language Training Center of the Faculty of Cultural Sciences, Gadjah Mada University in forward and backward by two different native speakers and then reviewed by experts. Validity and reliability tests on this questionnaire have been conducted in Indonesia by Ramadhani, et al (2019) with Cronbach's α results; divided by scale: diet compliance 0.79, medication compliance 0.75, blood glucose monitoring 0.83, physical activity 0.74, health services 0.72. The data analysis used in this study is univariate analysis and is summarized into categorical form (n) and the percentage of each category (%).

RESULT

Table 1.
Characteristics Respondents Sufferer DM Type II (n=120)

Variabel	Mean ± SD (min-max)	f	%
Age (Year)	53 ± 7,742 (22-59)		
Gender			
Female		74	61,6
Male		46	38,4
Marital Status			
Married		78	65
Single		19	15,8
Divorced / Divorced		23	19,2
Highest Education			
No Education		5	4,1
Elementary School		20	16,6
Junior High School		53	44,1
High School		30	25
College		12	10

Variabel	Mean ± SD (min-max)	f	%
Employment Status			
Not Working		23	19,2
Employed		97	80,8
Duration of DM Suffering (Years)	4 ± 6,925 (1-15)		
Family History of DM			
None		88	73,3
Yes		32	26,7
Experience with DM Education			
Never		89	74,1
Ever		31	25,9

The table 1 show results analysis obtained average age respondents is 53 year, The duration of suffering from DM was around 4 years, 61.6% were female, 44.1% had secondary education, 65% were married, 80.8% were employed, 73.3% had no family history of the disease and 74.1% of respondents had never attended DM education.

Table 2.
Description *Self-management* on Patient DM Type II (n=120)

Self-management	f	f
Good	35	29,1
Pretty Good	51	42,5
Bad	34	28,3

Table 2 above, in general, most of the respondents with type II DM have carried out good and sufficient *self-management* , but there is still a small number of respondents who have poor self-management.

Table 3.
Frequency Behavior Self-management Sufferer DM Type II (n=120)

Behavioral aspects Glucose management	Kategori					
	Good		Pretty Good		Bad	
	f	%	f	%	f	%
Diet control	38	31,6	49	40,9	33	27,5
Physical activity	28	23,3	53	44,1	39	32,5
Health care	39	32,5	46	38,3	35	29,1
Behavioral aspects	35	29,1	50	41,7	35	29,1

In the table above, it can be seen that most respondents are in the sufficient category in all aspects of behavior such as glucose management, diet control, physical activity and health care, but there is a small number of respondents who are in the bad and good categories in aspects of *self-management behavior*

DISCUSSION

Respondent Characteristics

Diabetes Mellitus is a metabolic disease characterized by increased level sugar in the blood Which exceed limit normal. Factor reason One of the factors contributing to type 2 diabetes is age. Based on Table 1, it is known that respondents with type 2 diabetes were in late adulthood. The results of this study are in line with other research with average respondents >50 year Where age become An important risk factor for developing DM is that it will result in a decrease in pancreatic cell function and reduced insulin hormone secretion. The older a person is, the higher the risk of developing DM. (2023, 2023). On results analysis show amount respondents DM type 2 more big that is gender Woman than men. Matter This in line with other research shows that the incidence of DM in women more than men. Several factors risks such as obesity, lack of activity, physical exercise, age and history of DM during pregnancy, cause high rates of DM in women (Kurniawan et al., 2020). It is known that the majority of respondents' education is secondary school, education is related to DM *self-management behavior* , this is in accordance with study others who show education is factor which is important in understanding the disease, self-care, management of type 2 DM and

blood sugar control so that the quality of life of type 2 DM sufferers remains optimal. More than half of the respondents have received information about DM (Haris Susilowati et al., 2024).

The analysis results showed that most respondents were married. This finding aligns with previous research in Indonesia, which reported that approximately 75% of Type 2 DM patients were married, with spousal support associated with better adherence to treatment and self-management. Other research has found that married patients tend to have higher *self-management due to emotional support from* their partners, which contributes to a better quality of life. (Kurniawan et al., 2020). It is known that most of the respondents in this study were working. This finding is consistent with other studies reporting that the majority of Type 2 DM patients are housewives (around 55%) and informal workers, who often have limited access to high-quality healthcare due to time and financial constraints (2023, 2023). Another study found that housewives with Type 2 DM tend to experience higher levels of diabetes distress due to heavy domestic responsibilities, which hinder self-management. In contrast, other studies have shown a more diverse distribution of employment, with a significant proportion of Type 2 DM patients working in the formal sector (Wahyudi et al., 2023).

In this study, most respondents had had diabetes mellitus for four years. This finding is consistent with research in Indonesia, which reported that the majority of Type 2 DM patients had a diagnosis of less than five years, with many patients experiencing complications due to suboptimal management in the early stages. (Nugroho et al., 2024). It was found in this study that most respondents did not have a family history of diabetes. This finding is supported by previous research which reported that approximately 60% of Type 2 DM patients have a family history of diabetes, confirming the role of genetic factors in the development of this disease (Prihatin Putri, 2019). In this study, the majority of respondents had never received DM health education from a health facility. This finding is consistent with previous research in Indonesia, which reported that approximately 65% of Type 2 DM patients in primary health facilities had never received formal health education, which correlated with low health literacy and adherence to treatment (Kusnanto et al., 2020).

Behavior *Self-management* On Patient DM Type II

Self-management is an action taken by DM patients to manage and control DM which includes glucose management, diet control, physical activity, health care. The goal of *self-management* is to optimize metabolic control in the body and prevent complications. I And chronic, optimize quality life patient as well as can reduce costs incurred for the care/treatment of DM. (Sari et al., 2023). In study This most of the respondents DM type 2 do *self-management* Enough. Results This in harmony with other research The *self-management* behavior of type 2 DM patients is in the adequate category. This similarity is possible because most respondents are women, who tend to experience a series of risk factors for DM, such as obesity, DM during pregnancy, and lack of activity/exercise.

Self-Management Dimension "Glucose Management" Overview

Half of the respondents with diabetes had adequate blood sugar monitoring behavior. This can worsen the patient's condition, requiring efforts to address poor behavior, including health education, blood sugar monitoring, patient motivation, and family support. This is because many respondents check their blood sugar every two weeks or according to a doctor's order. If the blood sugar result is more than 200 mg/dl, they are instructed (1). To check again every two weeks or are referred to a hospital, and this is not due to the patient's motivation to check their blood sugar at the recommended times, namely before fasting, before eating, and two hours after eating, before exercising, or when feeling unwell. Another study stated that a longer duration of the disease will increase compliance with blood sugar monitoring. This

statement is in accordance with this study because almost half of the respondents have had diabetes for more than 5 years. However, in Indonesia, blood sugar control is recommended only during check-ups with health workers because, according to PERKENI, Indonesia has a different culture than abroad, which requires daily blood sugar control.

Description *Self- Management* dimensions "Control Diet"

On aspect control diet almost half of it respondents This finding aligns with other research showing that late-adult DM patients have better dietary behavior and knowledge than younger DM patients, who consume a lot of fat. meat red, food fast serving besides That on age young they more Often busy with careers and high social activities and have little time to manage their disease regularly, so for young type 2 DM patients it is recommended to improve their self-management. In addition, the family is very dominant in determining the daily diet menu for DM patients. To be able to follow a DM diet, motivation and good family support. (Putri et al., 2022).

Description *Self- Management* " physical activity" dimension

Sports or physical exercise is also recommended for DM sufferers. because long-term benefits can reduce mortality rates for individuals by 50%-60% and control blood sugar levels because it can activate insulin sensitivity (Rif'at et al., 2023). In this study, almost all respondents did exercise. This in accordance with other research that say most of the sufferers are not good in exercise. The elderly tend to be weaker and are at risk of experiencing complications, making them less able to exercise regularly (3-5) times a week. (Nurhayati et al., 2020).

Description *Self- Management* dimension of "Care Health"

For DM sufferers, health care is very important because health problems are the most common problem that results in sufferers having to be hospitalized, have amputations or be disabled for life (Hasanah et al., 2022). The results of this study on the aspect of health care health in category currently. Where study This in line with behavior maintenance health, especially the health of the patient's feet DM Good like clean feet, drying between finger And No cut nail use *razor/cutter.* (Sahriana et al., 2023). As for the medication aspect, namely oral anti-diabetic treatment for type 2 DM sufferers which functions to help activate insulin in the body, it is really needed by DM sufferers, especially when sufferers experience... stress or illness due to the need to combat insulin resistance and adequate blood sugar control (Sabil et al., 2020). On the results this research half of the respondents who suffering from DM < 5 years undergoing good medication, namely by taking medication regularly Because respondents routine For seek medical treatment to the hospital And consult to the doctor about drug them consumption. Results This research is in line with other research which states that patients diagnosed with DM < 5 year Where duration disease Which more short own behavior medication which are more Good Because patient Which have duration treatment Which long will making patients frustrated with ongoing treatment. The difference in the results of this study Compliance in treatment dominated by old age due to the longer the treatment, the more compliant you will be in undergoing the treatment. (Tursina et al., 2022)

CONCLUSION

Self-management picture shows that 42.5% of patients' self-management is in the "fair" range. The data shows that nearly half of patients are not yet fully able to manage their health independently, but are not completely deficient either. This reflects challenges in some aspects of self-management, but there is still effort or awareness to try.

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