



## DESCRIPTION OF EATING PATTERN IN PATIENTS WITH DIABETES MELLITUS AT IBNU SINA GRESIK HOSPITAL

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Research Report

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### ABSTRACT

**Introduction:** Poor dietary management is still commonly found in diabetes mellitus patients. Diet can be observed from the amount of food, type of food, and food schedule. The purpose of this research is to find out the diet of people with diabetes mellitus at the Ibnu Sina Gresik Hospital. **Methods:** This study was used a descriptive research design. The sample population in this study were outpatient diabetes mellitus at Internal Medicine Polyclinic Ibnu Sina Gresik Hospital with the number 96 respondents. Sampling was taken using consecutive sampling who met the inclusion and exclusion criteria. Researchers collected data using dietary questionnaires. Univariate data analysis used is editing, coding, scoring, tabulation, and descriptive analysis. **Results:** This study was used a descriptive research design. The sample population in this study were outpatient diabetes mellitus at Internal Medicine Polyclinic Ibnu Sina Gresik Hospital with the number 96 respondents. Sampling was taken using consecutive sampling who met the inclusion and exclusion criteria. Researchers collected data using dietary questionnaires. Univariate data analysis used is editing, coding, scoring, tabulation, and descriptive analysis. **Conclusions:** The diet of patients with diabetes mellitus based on the amount of food is categorized as sufficient, based on the type of food categorized as bad, and based on the eating schedule is categorized as sufficient.

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### INTRODUCTION

Poor dietary management is commonly found in diabetes mellitus patients. The results of the study showed that as many as 59.1 percent of people with diabetes mellitus had the wrong eating pattern (Tarihoran & Silaban, 2022). Another study showed that as many as 72.5 percent of diabetes mellitus patients had poor eating habits (Rottie et al, 2019). Unfavorable eating patterns are influenced by the habit of consuming food excessively, paying little attention to the amount of food, type of food and recommended eating schedule, and feeling lazy to eat. This needs to be considered because diet can lead to an increase in blood sugar levels which is at risk of complications from diabetes mellitus (Darmawan, 2019).

According to the *World Health Organization* (WHO) diabetes mellitus is a non-communicable disease with the highest mortality after cardiovascular disease, cancer and respiratory disease (Pangribowo, 2020). The International Diabetes Federation (IDF) states that in 2021 there will be 536.6 million people with diabetes in the world and this number is expected to increase by

46 percent to 783.7 million people in 2045 (Pahlevi, 2021). The IDF also stated that Indonesia is included in the top 10 with the most diabetes sufferers with the number of diabetes mellitus in 2019 as many as 10.7 million people while in 2021 around 19.46 million, this figure has increased by 81.8 percent in the last 2 years (Pahlevi, 2021). According to Basic Health Research or also called *Riskesdas* data for 2018 in the prevalence of diabetes mellitus in East Java was 2.8 percent, previously in 2013 it was 1.8 percent. This number shows that East Java is included in the top 10 prevalence rates of diabetes. the highest in Indonesia (Pangribowo, 2020).

Diabetes mellitus is a degenerative disease that can be controlled by keeping blood sugar levels stable. There are four pillars of the management of diabetes mellitus, namely the management of diet and consume healthy food to get nutrition, do physical activity for at least 30 minutes a day, education through counseling and pharmacological intervention. One of the main factors in efforts to manage diabetes mellitus is diet because most people with diabetes mellitus



do not pay attention to a balanced diet (Kusnanto, 2022). Proper dietary management can help control increased blood sugar (Ritonga, 2019). In addition, people can also prevent diabetes mellitus by regularly checking their blood sugar, stopping smoking and consuming alcoholic beverages, and managing stress properly and correctly (Pangribo, 2020).

Diet is one of the factors that are widely discussed when discussing diabetes mellitus, several factors influence the increase in the incidence of diabetes mellitus, namely age, physical activity, body mass index (BMI), blood pressure, stress, and an unhealthy lifestyle, especially diet (Rottie et al, 2019). An unhealthy diet can cause diabetes mellitus because the food consumed is in the form of instant food and contains lots of protein, fat, sugar, salt, and does not consume fibrous foods such as fruits and vegetables (Ritonga, 2019). In addition, irregular eating patterns can be seen from the type, amount, and schedule of meals that are carried out by people with diabetes mellitus. Diabetics tend to often consume foods that are high in carbohydrates besides rice and consume drinks that contain lots of sugar (Nugraha & Sulastini, 2022). Some of these things cause an increase in blood glucose levels in the body (Ritonga, 2019; Dafriani, 2018) If this is not addressed, it can cause complications in people with diabetes mellitus in the form of diabetic neuropathy, diabetic ulcers, retinopathy, nephropathy, and coronary heart disease (Wicaksono, 2019).

Based on the explanation above, the authors are interested in conducting research with the title Overview of Eating Patterns in Patients with Diabetes Mellitus at Ibnu Sina Gresik Hospital. According to researchers, diet is quite important in controlling blood sugar in people with diabetes mellitus. The purpose of this study was to obtain an overview of eating patterns based on the amount of food, type of food, and meal schedule in people with diabetes mellitus at Ibnu Sina Gresik Hospital.

## MATERIALS AND METHODS

The design used in this study is a descriptive research design. The population in this study were all diabetes mellitus patients who visited the Internal Medicine Clinic at the Ibnu Sina Gresik General Hospital. The sample in this study were some diabetes mellitus patients who visited the Internal Medicine Polyclinic at the Ibnu Sina Gresik Hospital. Determining the number of samples using the Lemeshow formula, namely calculating the number of samples whose population is not known with certainty.

This study used a consecutive sampling technique. This variable of this research is diet. The instrument used in this research is a questionnaire instrument from Pramayudi (2021) which has been modified to a total of 18 questions with a cronbach's alpha reliability value of 0,860 on a scale. Questionnaire using a Likert scale.

## RESULTS

**Table 1.** Characteristics of Respondents.

Characteristics	Frequency	Percentage
<b>Age (Years)</b>		
26 – 55	51	53%
>56	45	47%
<b>Gender</b>		
Male	37	39%
Female	59	61%
<b>Education</b>		
Basic Education	41	43%
Middle Education	43	45%
Higher Education	12	12%
<b>Occupation</b>		
Unemployment	18	19%
Private/Entrepreneur	53	55%
Housewife	25	26%
<b>History of Diabetes Mellitus</b>		
<1 year	18	19%
>1 year	78	81%
<b>Total</b>	<b>96</b>	<b>100%</b>

Based on table 1 shows that the characteristics of the respondents based on the age of the majority of respondents (53%) were

aged 25-55 years. Characteristics of respondents based on gender shows that the majority of respondents (61%) are female. Based on the level

of education, almost half of the respondents had primary education (43%) and secondary education (45%), and a small proportion of respondents (12%) had higher education. Further characteristics of the respondents based on occupational groups show that the majority of

respondents (55%) work as private employees/self-employed, and a small proportion of respondents (19%) do not work. Based on a history of diabetes mellitus, it showed that almost all respondents (81%) had a history of diabetes mellitus >1 year.

**Table 2.** Description of the amount of food in the diet of diabetes mellitus patients.

Food Amount	Frequency	Percentage
Good	19	20%
Enough	56	58%
Bad	21	22%
<b>Total</b>	<b>96</b>	<b>100%</b>

Based on table 2, it shows that the eating patterns of most respondents based on the amount of food were categorized as sufficient by 56 people (58%), and the eating patterns of a small

number of respondents based on the amount of food were categorized as good by 19 people (20%).

**Table 3.** Description of the type of food in the diet of diabetes mellitus patients.

Type of food	Frequency	Percentage
Good	6	6%
Enough	37	39%
Bad	53	55%
<b>Total</b>	<b>96</b>	<b>100%</b>

Table 3 shows that the eating patterns of most respondents based on the type of food were categorized as bad by 53 people (55%), and the

eating patterns of a small number of respondents based on the type of food were categorized as good by 6 people (6%).

**Table 4.** Description of the eating schedules in the diet of diabetes mellitus patients.

Meal Schedule	Frequency	Percentage
Good	21	22%
Enough	51	53%
Bad	24	25%
<b>Total</b>	<b>96</b>	<b>100%</b>

Based on table 4, it shows that the eating patterns of most of the respondents based on their eating schedule were categorized as sufficient, as many as 51 people (53%), and the eating patterns

of a small number of respondents based on their eating schedule were categorized as good, as many as 21 people (22%).

**DISCUSSION**

The results of this study indicate that the eating patterns of most respondents based on the amount of food consumed are categorized as sufficient. This research is in line with what was done by (Akilakanya, 2021) his research, it is known that the majority of respondents consume sufficient to excess amounts of food. In addition, this research is also in line with research conducted by (Nugraha & Sulastini, 2022) which in the results of his research showed that most of the respondents were still not precise in consuming the amount of food. This is due to the fact that the amount of food consumed by people with diabetes mellitus is mostly still not optimal so that it can trigger unstable blood sugar in the body

which can cause complications from diabetes mellitus.

The results of this study indicate that the eating patterns of most respondents based on the type of food consumed are categorized as bad. This research is in line with research conducted by (Akilakanya, 2021) the results of his research showed that almost all respondents consumed an unbalanced type of food. In addition, this research is also in line with research conducted by (Hengky, 2018) the research results which showed that almost all respondents consumed the type of food ingredients in the unfavorable category. This is because the type of food consumed by people with diabetes mellitus is still not properly

implemented so that it can cause complications of diabetes mellitus and unstable blood sugar.

The results of this study indicate that the eating patterns of most of the respondents based on their eating schedule are categorized as sufficient. This research is in line with research conducted by (Nugraha & Sulastini, 2022) the research results which showed that most of the respondents were irregular in implementing a dietary schedule. This research is also in line with the research conducted by (Hengky et al, 2018) the results of his research which showed that almost all respondents applied the eating schedule in the unfavorable category. This is because the eating schedule that is applied to people with diabetes mellitus is still not implemented properly because they are still carrying out their routine activities and ignoring the recommended eating schedule. Eating schedules that are not in accordance with the time intervals can cause unstable blood sugar levels in the body which have an impact on complications of diabetes mellitus.

## CONCLUSIONS

Patients with diabetes mellitus who are undergoing examination at the Outpatient Clinic for Internal Medicine at the Ibnu Sina Gresik Hospital, their diet is still not optimal, which has an impact on sugar levels in the body and can cause complications of diabetes mellitus.

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