

DIET COMPLIANCE OF PATIENTS WITH DIABETES MELLITUS AT UPT PUSKESMAS SEISEMAYANG DUSUN VI SUNGGAL

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Abstract

Dietary compliance is a routine in complying with dietary needs and is a recommendation from the health team for people with diabetes mellitus so that a good lifestyle can be created so that the sugar levels of people with diabetes mellitus do not increase. The aim of this study to find out Dietary Compliance for Patients with Diabetes Mellitus at UPT Puskesmas Dusun VI Sunggal District in 2022. This research design is descriptive. The population in this study were 196 people with diabetes mellitus at the UPT Puskesmas Sunggal District. Accidental Sampling technique with a total sample of 30 respondents. Data analysis used univariate test. The results of the study obtained adherence to the Diabetes Mellitus Diet at UPT Puskesmas Dusun VI, Sunggal District in 2022. There were 23 people (76.7%) in the obedient category and 7 people (23.3%) in the non-compliant category. It is hoped that this will become basic data for the Dusun VI Puskesmas in Sunggal District and it is hoped that the UPT Puskesmas VI Dusun can improve education for people with diabetes mellitus about the importance of dietary compliance and for future researchers it is hoped that they can examine different variables associated with dietary compliance with increased glycemic levels in people with diabetes mellitus.

Keywords: Diet Compliance, Diabetes Mellitus, Patients

1. Introduction

Diabetes mellitus (DM) is a metabolic disease characterized by hyperglycemia with a medical condition in the form of an increase in blood glucose levels that exceeds normal limits with typical signs of diabetes mellitus (DM) which may be found in several other conditions and is a world health problem with a continuing prevalence and incidence. increases every year, both in industrialized and developing countries, including Indonesia (Decroli, 2019, and became a common health problem in developed countries, but is currently also an increasing problem in developing countries. In Africa, an estimated 14.2 million people live with diabetes. 3 Factors driving this dramatic increase in developing countries are increasing urbanization and lifestyle changes (Muhammed et.al, 2020).

Diabetes mellitus as a global problem continues to increase in prevalence from year to year both in the world and in Indonesia. Based on data from the International Diabetes Federation (IDF) the global prevalence of diabetes mellitus in 2019 is estimated at 9.3% (463 million people), increasing to 10.2% (578 million) in 2030 and 10.9% (700

million) in 2019. 2045 (IDF, 2019). Indonesia is ranked 7th as a country with the most diabetes mellitus in the world and is expected to rank 6th in 2040. The latest data from the International Diabetes Federation in 2017 shows that Indonesia is currently ranked 6th in the world with the largest number of diabetics, namely 10.3 million souls. Data on the incidence / prevalence of diabetes mellitus in the world in 2015 reached 415 million people and increased in 2017, namely 425 million of the total population worldwide or around 8.8% of adults aged 20-79 years. Indonesia ranks 6th as the highest number of adult diabetics in the world with a total of more than 10.3 million people after China (114.4 million), India (72.9 million), United States (30.2 million), Brazil (12.5 million) and Mexico (12 million) and this figure is predicted to continue to increase and reach 16.7 million in 2045 (IDF, 2017)

Diabetes mellitus in Indonesia is ranked seventh in the world for the highest prevalence of diabetes in the world after China, India, the United States, Brazil, Russia and Mexico with complications which are the third highest cause of death in Indonesia after Sri Lanka. The prevalence of people with diabetes in Indonesia shows an increasing trend, namely 5.7% (2007) to 6.9% (2013)(Oktorina et al., 2019).

The 2019 World Health Organization (WHO) predicts that diabetes mellitus will affect more than 16.7 million Indonesians in 2045. Indonesia is ranked 6th with the highest burden of diabetes mellitus in the world, Indonesian Ministry of Health, 2019 , data from the International Diabetes Federation shows that 10.3 million Indonesians suffer from diabetes mellitus (Oktavera et al, 2021).

Basic Health Research data shows, the prevalence of Diabetes Mellitus based on a doctor's diagnosis in people aged ≥ 15 years from the results of the 2018 Riskesdas increased to 2%. In the Jambi province, from 1.1% it increased to 1.5% from 2013 to 2018. (Ministry of Health RI, 2019b). In the Kerinci district, out of the 21 existing health centers, there were 824 people with Diabetes Mellitus in 2018 and it is expected that this will continue to increase, because there are still many people who are not aware of the dangers of diabetes. Furthermore, there are also many people who don't care about their health and don't want to watch their diet (Jambi Provincial Health Office, 2019).

Data from the 2018 Riskesdas Litbangkes states that in Indonesia as many as 75% of the total number of people with diabetes are not aware that they have diabetes. Meanwhile, of the 25% of people with diabetes who are aware that they have diabetes, only 17% are undergoing diabetes therapy. It's no wonder that more and more people with diabetes are experiencing complications as a result of the risk of diabetes(Octavera et al., 2021).

Poor dietary adherence results in increased blood glucose levels. To maintain blood glucose levelsIf the patient is stable, it is recommended to be able to follow the diet as recommended while still paying attention to controlling glucose levels, because with that, DM sufferers are able to determine a good and correct diet, because blood glucose levels in someone with diabetes mellitus are categorized by the American Diabetic Association (ADA).) can be classified based on the value of glycosylated hemoglobin levels developed by the American Diabetic Association. 64.1% of poor glucose control and 35.9% of good glucose control (Adugna OlumaI et al, 2021).

One of the pillars of the management of diabetes mellitus is diet, this can be lived well by people with Diabetes Mellitus (DM), if there is a will in a person, has the determination that enables him to comply with the rules that have been agreed upon for

his own health, namely compliance . People can comply if it becomes part of their life and eventually becomes a habit for someone because it is very important, but it becomes a difficult challenge for people with DM to control dietary adherence. Compliance can also occur if there is a role from the family who understands the importance of diet, because if the family understands it then it can encourage family members to maintain their diet.(Almaini & Heriyanto, 2019).

Adherence to diet is an extension or health education about healthy eating patterns. Better dietary adherence requires an understanding, and implementation in life, and will assist in determining proper nutrition. However, diet adherence often fails, due to lack of routine in providing health education such as excessive intake of carbohydrates, or not according to doctor's recommendations or advice (Ammas Siraj Muhammad et al, 2020). In addition to recommendations for a good diet pattern, routine physical activity is also needed so that blood sugar levels stored in the muscles will be converted into energy (Fitriani Nasution et al, 2021).

Diet is a food intake that provides a variety of schedules and types of food that a person gets. Setting the right diet as recommended by the 3J (Schedule, Amount and Type) can result in an increase in blood sugar levels. Diet patterns in people with diabetes mellitus aim to help sufferers improve eating habits so they can control blood glucose levels within normal limits as a result of hyperglycemia (increased blood sugar levels in the body). Therefore, the management of diabetes mellitus dietary pattern therapy plays an important role in efforts to normalize blood sugar levels in diabetes mellitus and prevent various kinds of complications arising from the disease.(Hariawan et al., 2019).

Unhealthy eating patterns cause an imbalance between carbohydrates and other ingredients needed by the body. As a result, the sugar content in the body becomes high beyond the working capacity of the pancreas and results in diabetes mellitus. Unhealthy eating patterns, lack of physical activity are also predisposing factors for diabetes mellitus. Normal muscle at rest, which can result from physical inactivity, is almost impermeable to glucose except when the muscle fibers are stimulated by insulin. The increased risk of diabetes mellitus at low physical activity occurs due to decreased muscle contraction which causes reduced cell membrane permeability to glucose(Hariawan et al., 2019).

Lifestyle is a person's behavior that is shown in activities, interests and opinions, especially those related to self-image to reflect his social status. A healthy lifestyle includes sleeping habits, eating, not smoking, drinking alcoholic beverages, drinking soda, and exercising regularly(Murtiningsih et al., 2021).

Lifestyles consuming foods such as fast food, junk food, high carbohydrates, and sugary drinks as well as lifestyles with less physical activity and sitting for hours have a high risk of developing diabetes mellitus(Murtiningsih et al., 2021).

Good diabetes management is a balance between healthy medication, exercise, and dietary modificationscommitment from people with diabetes mellitus to remain compliant in carrying out their diet every day so that blood sugar levels can be controlled properly so as not to cause further problems. This adherence can be carried out in accordance with the recommendations of doctors or other health teams such as carrying out their obligations to take medication on time, dietary recommendations for DM sufferers (62.5%) as well as those who do not comply with the diet and lack of diet education (83.38%) and the inability to buying healthy food (71.33%) was also a

perceived obstacle in practicing dietary recommendations. Patients who adhered to dietary recommendations were 3.56 times more likely to have controlled glucose levels. Eat foods rich in carbohydrates with an average score of 4.23. Intake of foods containing canola oil, walnuts, olives,

2. Methodology

Research methods with the type of research that will be used in this research is descriptive research. This research using accidental sampling technique. A sampling technique based on coincidence, that is, anyone who meets the researcher by chance can be used as a sample, if it is deemed that the person met by chance is suitable as a data source. The sample in this research is 30 Respondents with Diabetes Mellitus.

3. Results

Table. 1 Frequency Distribution of Respondents

Characteristics	F	%
Age		
Early Adult (39-45)	7	23,3
Late Adult (46-55)	14	46,7
Late Elderly (56-62)	9	30.0
Total	30	100%
Gender		
Woman	19	60.0%
Man	11	49.0%
Total	30	100%

Based on table 1 shows that out of 30 respondents aged 39-45 years there were 7 respondents (23.3%), aged 46-55 years there were 14 respondents (46.7%) and aged 56-62 years there were 9 respondents (30.0 %). Data on the sex of the respondents showed that there were 19 female respondents (63.3%) and men as many as 11 respondents (36.7%).

Table. 2 Distribution of Frequency and Percentages

Dietary Compliance	F	%
obey	23	76.7%
Not obey	7	23.3%
Total	30	100%

Based on table 2, it is stated that of the 30 respondents who had Diet Compliance, 23 respondents (76.7%) and 7 respondents (23.3%) did not comply.

4. Discussion

Based on the results of the study, it was found that the age of the respondents affected by diabetes mellitus was the age range of 39-62 years because it is a risk factor for increasing blood sugar levels due to aging and can reduce insulin sensitivity so that blood glucose levels increase. Females have a greater risk of developing type 2 diabetes mellitus than males because physically women have a greater chance of increasing their body mass index due to their frequent eating habits and lack of physical activity.

The research results obtained stated that out of 30 respondents, 23 respondents (76.7%) obeyed and 7 respondents (23.3%) did not comply.

Based on gender, it was known that the number of female patients was 19 respondents (60.0%) and male patients were 11 respondents (49.0%). These results indicate that women more affected by diabetes mellitus than men. Women have a greater risk of developing diabetes mellitus because women are more likely to consume ready-to-eat food so that the occurrence of diabetes mellitus increases.

Age is one of the risk factors for diabetes mellitus. Age is divided into 3 ranges, namely 39-45 years (23.3%), 46-55 years (46.7%), and 56-62 years (30.0%).

Based on the research results which were distributed through questionnaires, researchers can conclude that the elderly can eat on time according to the schedule that has been consulted by doctors and other health teams, the elderly avoid sweet foods and follow a diet so that blood sugar is always well controlled. It can be concluded that the dietary compliance of the elderly at UPT Puskesmas Sei Semayang is categorized as obedient.

5. Conclusion

Based on the results of the study with a total of 30 respondents regarding Diet Compliance for Patients with Diabetes Mellitus at the UPT Puskesmas in Dusun VI, Sunggal District in 2022

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