

Overview of Family Knowledge Level and Support Regarding Diet in Diabetes Mellitus Patient

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ABSTRACT

Background: Lack of family understanding about the diabetes mellitus diet affects the support given to patients. Knowledge about diet and family support provided to diabetes mellitus patients is one of the main assets for patients to remain actively involved in the implementation of the diabetes mellitus diet. **Purpose:** This study aims to describe the level of family knowledge and support regarding diet in diabetes mellitus patients at Loa Janan Public Health Center. **Method:** This research design is descriptive with a quantitative approach. A total of 30 respondents were selected using purposive sampling based on the inclusion criteria of families who have lived together for at least six months and reside in the working area of Loa Janan Public Health Center. **Results:** The study results on family knowledge and support regarding diet in diabetes mellitus patients at Loa Janan Public Health Center indicate a low level of knowledge among 14 respondents (47%) and good family support among 23 respondents (77%). **Conclusions:** The level of family knowledge falls into the low category, whereas family support is classified as good in diabetes mellitus patients. It is hoped that the findings of this study can help improve knowledge about diet.

Keywords : Diabetes mellitus, diet, family support, level of knowledge

1. INTRODUCTION

The issue of knowledge regarding diet for diabetes mellitus patients is related to a lack of understanding of the importance of dietary regulation. Many individuals do not realize that a proper diet can help control blood sugar levels, prevent complications, and improve quality of life. The lack of family understanding—many are unaware of what diabetes is, its types, and the impacts of this disease—coupled with ignorance about the family's role in psychosocial support (Fauzia et al., 2018). Regarding family support, families with unhealthy eating habits struggle to follow the recommended diet. During shared meals, families tend to provide food that does not align with the dietary needs of diabetes mellitus patients, such as high-sugar or simple carbohydrate-rich foods. The social pressure often makes diabetes mellitus patients hesitant to refuse, turning this into a major challenge (Akbar, 2023).

In 2019, the International Diabetes Federation (IDF) stated that approximately 500 million people were living with diabetes. Data from the World Health Organization (WHO) showed that diabetes caused 2.2 million deaths (Pramayudi, 2021). In 2017, 6.9% of Indonesians over the age of 15 suffered from diabetes mellitus, with Yogyakarta at 2.6%, DKI Jakarta at 2.5%, North Sulawesi at 2.4%, East Kalimantan at 2.3%, and North Sumatra at 50.5% (Angraini et al., 2023). According to the Samarinda City Central Bureau of Statistics (2024), in 2021, the number of people suffering from non-insulin-dependent diabetes mellitus without complications was approximately 2,304. The number of patients increased to 3,469 in 2022 and continued to rise annually, reaching 4,962 in 2023. In the Loa Janan Public Health Center area, there were 565 diabetes mellitus patients in 2024.

Meal planning is an essential part of managing the diet of individuals with diabetes mellitus. There are four main pillars in diabetes mellitus control: education, nutrition and diet therapy, physical exercise, and pharmacological therapy. Internal and external factors influence the implementation of a diabetes mellitus patient's diet. Knowledge and attitude are internal factors, while support from family and healthcare providers are external factors. By regulating the quantity, type, and schedule of food consumption, the dietary patterns of diabetes mellitus patients are managed with a DM diet (Angraini et al., 2023).

A person's knowledge can influence their mindset in carrying out various activities. The more extensive and better the knowledge of diabetes mellitus patients, the better their ability to manage the condition. Lack of knowledge can impact dietary habits, leading to obesity and increased blood glucose levels. One way to prevent diabetes mellitus is by changing eating habits and choosing healthy foods. Diabetes mellitus patients need support

to maintain their lifestyle, especially from family members and their surrounding environment (Handayani et al., 2017).

Psychosocial function and interpersonal relationships when facing problems can be affected by a lack of family support. Without family support, coping can become negative, indirectly impacting diabetes patients' adherence to routine control (Choirunnisa, 2018). One of the best indicators showing a positive effect on dietary compliance in diabetes mellitus patients is family support (Handayani et al., 2017).

Based on a preliminary study conducted by researchers on 30 families living with diabetes mellitus patients, it was found that some of them lacked sufficient knowledge about diet and the necessary support for diabetes mellitus patients. This study aims to determine the extent of respondents' understanding of diet and support for diabetes mellitus patients.

2. METHOD

This research design is descriptive with a quantitative approach. Descriptive research aims to systematically, factually, and accurately describe the facts or characteristics of a specific population.

The instrument used in this study is a survey approach, where data was obtained through direct interviews and Google Forms. The sample consisted of 30 respondents using a non-probability sampling technique, specifically purposive sampling, based on inclusion criteria.

3. RESULT AND DISCUSSION

The results of this study provide an overview of family knowledge levels and support regarding diet in diabetes mellitus patients. Data collection was conducted through printed surveys and online using Google Forms. The sample selection for this study on family knowledge levels and support regarding diet in diabetes mellitus patients consisted of 30 respondents chosen according to inclusion criteria. The collected data was then tabulated and analyzed. The study data is presented in tabular form and will be interpreted narratively.

Table 3.1 Knowledge level

No.	Knowledge Category	F	Presentase (%)
1.	High	3	10%
2.	Medium	13	43 %
3.	Low	14	47%
	Total	30	100 %

Based on the research results from the table above, more respondents have a low level of knowledge about the diet of diabetes mellitus patients, totaling 12 respondents (47%). Meanwhile, respondents with a moderate level of knowledge account for 13 respondents (43%), and those with a good level of knowledge are around 3 respondents (10%).

The results of this study indicate that the majority of respondents have a low level of knowledge about the diabetes mellitus diet, with 14 respondents (47%). In another study by Okatiranti (2016), findings showed that family knowledge about dietary modifications for diabetes mellitus patients was low (44.06%), while adequate knowledge accounted for 42.37%. A lack of knowledge about the diabetes mellitus diet can lead to dietary mistakes that negatively impact patient health.

Knowledge is a crucial factor in the actions taken by diabetes mellitus patients, as behavior based on knowledge is easier to implement than behavior that lacks a foundation of understanding (Waspadji, 2017). The role of the family consists of informal roles, such as caring for family members, and motivational roles, which serve as encouragement for the patient (Agustina, 2017).

Table 3.2 Family support

No	Attitude Category	F	Presentase (%)
1.	Good	23	77%
2.	Medium	6	20 %
3.	Less	1	3 %
	Total	30	100 %

Based on the research results from the table above, the majority of respondents have good family support for diabetes mellitus patients, totaling 23 respondents (77%). Meanwhile, respondents with moderate family support account for 6 respondents (20%), and those with low family support comprise approximately 1 respondent (3%).

The results of the study showed that the majority of respondents had good family

support, with 23 respondents (77%). The study by Oktavera et al. (2021) on the relationship between family support and dietary compliance in type II diabetes mellitus patients found that a higher number of respondents received family support, totaling 26 respondents (52%). In another study by Hidayati (2020), the findings showed that 53.3% of respondents experienced good family support.

According to the study by Wulandari and Nasution (2019), family support can improve patient adherence to the diet recommended by doctors and nutritionists. Family support plays a crucial role in helping diabetes patients understand and adopt a healthy diet. Families can contribute by providing nutritious meals, offering motivation, and encouraging patients to follow a diet aligned with medical recommendations. Family support has a significant impact on the management of diabetes treatment at home. This is because the family's role is vital in monitoring and controlling blood glucose levels in diabetes patients. Additionally, families are responsible for ensuring dietary restrictions are followed by diabetes patients (Dahlan et al., 2018).

The family serves as an information provider and feedback giver. The forms of family support provided include encouragement, advice, supervision of daily dietary habits, and medication management. The type of family support desired by diabetes mellitus patients includes attention, appreciation, and affection (Hidayati, 2020).

4. CONCLUSION

A study on the overview of family knowledge levels and support regarding diet in diabetes mellitus patients has been conducted. Based on the research results, it was found that more respondents 14 (47%) had a low level of knowledge. Meanwhile, 13 respondents (43%) had a moderate level of knowledge, and 3 respondents (10%) had a good level of knowledge. Additionally, family support was categorized as good for 23 respondents (77%). Meanwhile, 6 respondents (20%) had moderate family support, and 1 respondent (3%) had low family support.

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