Family Support with Diabetes Management in Type 2 DM: Correlation Study

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Article Info:	ABSTRACT
	Diabetes is one of the greatest global health emergencies of the 21st century. The incidence of DM continues to increase every year. Family support is an important aspect in supporting the successful implementation of diabetes management. This study aims to determine the relationship between family support and diabetes management. The design of this research is a descriptive correlation with a cross-sectional approach which was carried out in August-October 2021 in Gianyar Regency with a total sample of 207 respondents taken through a multistage sampling technique. The results obtained were high dominant family support (51.2%), and dominant diabetes management was in the sufficient category (46.4%). The results obtained from the chi-square analysis, the p-value 0.031, show that there is a relationship between family support and diabetes management in type 2 DM patients. The existence of family support will improve diabetes management for type 2 DM patients because one of the family functions is to provide care for family members. Keywords: diabetes mellitus; family support; diabetes management

INTRODUCTION

Diabetes is one of the greatest global health emergencies of the 21st century. The number of people with diabetes mellitus globally is 463 million people and 4.2 million people die from diabetes mellitus. Diabetes mellitus in 2019 showed typical diabetes with an increasing prevalence based on age. The trend is also predicted to be the same for 2030 and 2045 (Diabetes Federation International, 2019). It is estimated that there are still many (around 50%) people with diabetes who have not been diagnosed in Indonesia (PERKENI, 2021). The diabetes epidemic in Indonesia in 2019 still showed an increasing trend. Indonesia is the sixth ranked country in the world with the number of people with DM reaching 10.3 million.

In 2018, diabetes mellitus in Bali was included in the top 10 diagnoses of Outpatient and Inpatient Diseases at First Level Health Facilities and Advanced Health Facilities of the JKN Program, diabetes mellitus was ranked 2nd based on diagnosis during treatment with ICD 10 code (Dinas Kesehatan Provinsi Bali, 2019). Diabetes is a chronic disease so its management must also pay attention to the concept of chronic disease treatment. Diabetes makes many changes in patients life habits such as blood sugar control, physical activity, drug consumption routinely, and adhere the diet (Hadi Kurniyawan et al., 2022). The goal of managing diabetes mellitus in general is to improve the quality of life of the patient. The efforts that have been made are promotive and preventive efforts from the government both through electronic media and from the mass media. People with diabetes in managing their disease really need family support (PERKENI, 2021).

Management of DM with good management will assist patients in improving the quality of life in carrying out the treatment process that lasts a lifetime. Management of DM can be conducted by pharmacological and non-pharmacological (Savitri & Ratnawati, 2022). Research conducted by Bradley, et al (2018) showed that the poor quality of life of patients was influenced by the patient's free diet without a diet which also had a negative impact on HbA1C blood sugar levels (Bradley et al., 2018). In carrying out DM management, the family has a very important role to accompany the patient. Diabetes management is very complex, requires a long-life commitment and drastic changes in the patient's lifestyle.

In addition to emotional and financial support, lifestyle changes are supported by involving and accompanying their relatives in new behaviors. Nanda (2012) describes the problem of declining family coping as the inadequacy and ineffectiveness of the family helping clients to manage and master adaptive tasks related to health problems. This is due to several related factors including: illness that lasts a long time and depletes the supportive ability of the family, lack of

information on the family, inadequate understanding of the family and incorrect information to the family about health problems faced by the family (NANDA, 2012). Based on this description, the researcher is interested in conducting research on the relationship between family support and diabetes management in type 2 diabetes mellitus patients.

METHOD

This research is a descriptive correlational study with a research design cross-sectional approach. The population in this study were patients with diabetes mellitus who were in the Gianyar district in 2021. The sample of this study is DM type 2 patients in Gianyar Bali amount of 207 patients and was taken using a multistage sampling technique. Data was carried out at the patient's home. Data analysis using Chi-Square test. The instrument used is a family support questionnaire and diabetes mellitus management. This research has been submitted to the research ethics committee of the Faculty of Medicine, Udayana University/Sanglah Hospital Denpasar, and has been declared ethically compliant with the number: 1656/UN14.2.2.VII.14/LT/2021.

RESULT

The results section describes the characteristics of the respondents and the results of the analysis of the relationship between family support and diabetes management in type 2 DM patients. The characteristics of the respondent that was studied are age, long-suffering from DM, education, and occupation.

Characteristics of Respondents

Table 1. Characteristics of Respondents (n=207)

Respondents Characteristics	f (%)
Age of Respondents	
30 – 40 years	16 (7.7)
41 – 50 years	47 (22.7)
51 – 60 years	65 (31.4)
> 60 years	79 (38.2)
Gender	
Male	116 (56.0)
Female	91 (44.0)
Long Suffering from DM	
<= 1 year	44 (21.3)
> 1 year	163 (78.7)
Education	
Not Study	39 (18.8)
Elementary School	30 (14.5)
Junior High School	22 (10.6)
Senior High School	107 (51.7)
College	9 (4.3)
Occupation	
Not Working	50 (24.2)
Government Employee/National Army/Police/Retired	16 (7.7)
Private employee/self-employed	56 (27.0)
Farmer	32 (15.5)
Others	53 (25.6)

Based on table 1 above, it shows that the dominant respondent's age is >60 years (38.2%), the dominant gender is male (56%), the dominant suffers from DM >1 year (78.7%), the dominant education is SMA (51.7%) and the dominant occupation is as a private employee/entrepreneur (27%).

Results of Analysis of the Relationship between Family Support and Diabetes Management

Table 2. Family Support with Diabetes Management in Type 2 DM Patients (n=207)

Variable	f (%)	p-value
Family Support		0.031
High	106 (51.2)	
Low	101 (48.8)	
Diabetes Management		
Good	79 (38.2)	
Enough	96 (46.4)	
Less	32 (15.5)	

Table 2 above shows the dominant family support variable is high (51.2%), diabetes management is dominant in the moderate category (46.4%), and the results of the relationship analysis show p-value=0.031 (p<0.005), which means that there is a relationship between family support and diabetes management in type 2 DM patient.

DISCUSSION

The results of the study on family support with diabetes management in type 2 DM patients from 207 respondents showed dominant family support in the high category (51.2%), dominant diabetes management in the moderate category (46.4%) and the results of the Chi-Square analysis showed that there is a relationship between family support and diabetes management in type 2 DM patients with a p-value of 0.031 <0.05. The results of this study are supported by research conducted by Arif and Dewi (2017) in Semarang City on 96 respondents with type II diabetes mellitus. The results showed that most of the respondents had high family support. The results of this study are in accordance with research conducted by Cai & Hu (2016) which stated that patients who were given family-based diabetes management education interventions significantly showed an increase in their quality of life and knowledge.

Families can influence the attitudes and learning availability of DM patients by rejecting or supporting them socially. DM patients will be more positive about learning about diabetes mellitus if the family is supportive and enthusiastic about health education in the diabetes mellitus (Yusra, 2011). The family is the closest person to the patient, therefore good family support provides many benefits for the condition of DM patients so that it will be able to have an impact on DM management such as lowering the patient's blood sugar level. The most important support provided by the family is the support provided in accordance with the dimensions of support that should be provided by the family including informational support, assessment support, emotional support, and instrumental support so that patients who receive this support can feel the benefits of support for themselves.

This study is also in line with research conducted by Teli (2019) which states that family involvement has an effect on diabetes management in DM patients. Optimal family support will help improve diabetes management in type 2 DM patients. A more in-depth research effort is needed regarding the support provided by the family so that aspects of support that still need to be improved so that diabetes management in patients can be improved and the patient's quality of life increases.

DM disease will have an impact on the quality of human resources and increase health costs which is quite large, therefore all parties, both the community (family) and the government, should participate in DM prevention efforts, especially in prevention efforts (PERKENI, 2021). Diabetes self-management support is also recommended to help implement and maintain the skills and behaviors necessary for ongoing self-management (ADA, 2019).. Diabetes prevention and control clearly requires everyone's attention as well as national policies with a revolutionary approach. Solving diabetes problems is related to behavior change and building positive synergies to foster a conducive climate for aspects of prevention and behavior change at the individual and family level (KEMENKES RI, 2019).

CONCLUSION

The results of the Chi-Square analysis showed that there is a relationship between family support and diabetes management in type 2 DM patients with a p-value of 0.031 < 0.05. Based on the conclusions of the results, the suggestions that can be submitted are as follows: there should be a diabetes center service on the lines of health care facilities at the *Puskesmas* and hospitals and for health workers to involve families in educating DM patients so that the knowledge possessed will help trigger support that can be given to type 2 DM patients. For further researchers to use a better method or perhaps a qualitative approach so that the support provided can be explored more deeply and it is

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necessary to know the patient's expectations for the support they want from their family to improve their diabetes management.

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