

THE RELATIONSHIP OF PERSONAL FACTORS AND FAMILY SUPPORT WITH SELF MANAGEMENT OF TYPE II DIABETES MELLITUS PATIENTS AINON PEMATANGSIANTAR CLINIC

Nurmala¹, Rina Valensi², Novita Sinaga³

¹Lecture of Universitas Efarina

²Student of Universitas Efarina

³Student of Universitas Efarina

Abstract

Based on data from the International Diabetes Federation in 2014, it was found that type 2 diabetes sufferers are increasing every year in every country and by 2035 it is estimated that diabetes sufferers will increase to 592 million people, and Indonesia is in 7th place. Diabetes is a degenerative disease that occurs for life. Diabetics will experience difficult times due to changes in themselves, so they need support from those around them, especially family support to help them control their lifestyle and self-management care for families with diabetes. Diabetes is a chronic disease that requires diabetes self-management to prevent serious complications. This study aims to identify the relationship between family support and self-management of people with diabetes mellitus at the Ainon Pematangsiantar Clinic. The design in this study used a quantitative approach to cross sectional design with a sample of 35 respondents. Data analysis used the Chi Square test. The results showed that there was no significant relationship between family support and diabetes self-management (p value = 0.274 at $\alpha = 0.05$). Researchers suggest the need for dissemination of information related to self-management through counseling and also the need for home visits for those who cannot attend the Ainon Clinic due to physical conditions that do not allow it.

Keywords: *Family Support, Self Management.*

1. INTRODUCTION

An increase in UHH can result in a transition in the health sector due to an increase in the number of morbidity due to degenerative diseases. With increasing age, physiological functions decrease due to degenerative processes (aging) so that many non-communicable diseases appear in old age. In addition, degenerative problems reduce the body's resistance so that it is susceptible to infectious disease infections. Infectious diseases suffered are tuberculosis, diarrhea, pneumonia and hepatitis. While non-communicable diseases in the elderly include hypertension, stroke, diabetes mellitus and arthritis or rheumatism. One of the most common non-communicable diseases is diabetes mellitus (Ministry of Health, 2013).

Type II diabetes mellitus is a metabolic disease characterized by an increase in blood glucose levels, which occurs as a result of impaired insulin secretion, insulin activity or both (Smeltzer & Bare, 2008). The inability to produce insulin or its ineffective use causes glucose levels to accumulate in the blood or known as hyperglycemia, and these high glucose levels will cause damage to the body and failure of various organs and tissues (IDF, 2013). Type 2 diabetes is the most common type of diabetes, accounting for 90-95% of all diabetics.

Complications that arise due to diabetes in all organs and all body systems depend on how to keep blood glucose always in a normal state. Controlling is a must for all Type II DM sufferers (Tandra, 2017). Most people with type II DM do not have their blood sugar levels checked if there are no complaints. They will check their health if they feel there is a disturbance (Tandra, 2017).

Diabetes that is often uncontrolled can lead to serious complications both macrovascular and microvascular such as heart disease, peripheral vascular disease, kidney failure, nerve damage and blindness. The many complications that accompany Type II DM have contributed to the

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occurrence of physical, psychological and social changes. To prevent complications from diabetes mellitus, it is necessary to control regularly through appropriate lifestyle changes for people with Type II DM. Control is often carried out also by means of dietary restrictions, increased physical activity, appropriate treatment regimens. regular medical control and regular metabolic control (Golien et al in Ronquillo et al, 2013).

Diabetes is a chronic disease that requires diabetes self-management as an important component for each individual in managing their disease and is the most important thing for controlling and preventing diabetes complications (Xu et al., 2017). Self-management behaviors that must be carried out by diabetics include managing diet, physical exercise, taking medication, monitoring blood glucose, and foot care (Shamoon et al., 1993; Xu et al, 2017), The success of diabetes self-management depends on care activities individual to control symptoms and avoid complications. If self-care activities are carried out regularly, it can prevent complications arising from diabetes (Wu et al., 2017).

1.1. Formulation of the problem

Based on the results of the preliminary studies that have been carried out, it can be concluded that the low level of family support will have an impact on the implementation of self-management in terms of managing and caring for themselves. Is there a relationship between family support and self-management of Type II DM sufferers at the Pematangsiantar Ainon Clinic?

2. RESEARCH METHODS

2.1. Research Design

This research uses a quantitative approach with a cross-sectional design, namely the measurement or data collection of the independent variable and the dependent variable is done at one time. The specific goal of a cross-sectional study is to describe the relationship between the independent variables and the dependent variable at one time (Sastroasmoro & Ismael, 2011).

The researcher uses a cross-sectional approach because this study intends to identify whether there is a relationship between the dependent variable and the independent variable in one measurement using a measuring instrument in the form of a questionnaire. The purpose of this study was to analyze the relationship between family support and self-management of type II DM sufferers at the Ainon Pematangsiantar Clinic.

2.2. Research Place

The research was conducted at the Ainon Pematangsiantar clinic

2.3. Research time

The research was conducted in July-August 2019

2.4. Population

The population is all subjects or objects with certain characteristics that will be examined (Setiadi, 2017). The population of this study were all type II DM patients who lived with their families who came for treatment at the Ainon Pematangsiantar clinic as many as 35 patients with Type II DM who went to the Ainon Clinic.

2.5. Sample

The sample is part of the population selected in a certain way so that it is considered representative of the population (Sastroasmoro & Ismael, 2011). The sampling technique used in this study namely

2.6. Statistical Data Analysis

Data analysis was carried out using computer software, while data analysis was carried out as follows:

1. Univariate analysis

Univariate analysis is used to describe the description of the frequency distribution of the dependent and independent variables. The independent variables (personal factors and family support) and the dependent variable (self-management) the results of the analysis are presented

in good and bad form with a proportion or frequency distribution. For independent variables, the type of analysis results is in the form of a frequency distribution.

2. Bivariate Analysis

Bivariate analysis is used to see the relationship between the independent variables and the dependent variable using bivariate analysis. Prior to further data analysis, the numerical data was tested for normality using the Kolmogorov Smirnov test. Data is declared normally distributed if the test results have a p value > 0.05 . If the significance value (p value) is > 0.05 then H_0 is accepted, meaning that there is no relationship between family support and self-management of people with diabetes mellitus. If the significance value (p value) is < 0.05 then H_0 is rejected, meaning that there is a relationship between family support and self-management of people with diabetes mellitus.

3. RESULTS AND DISCUSSION

3.1. Overview of Self-Management at Aionon Clinic

Respondents with poor self-management outnumber those with good self-management with a ratio of 19:16. This shows that respondents are less able to apply good self-management. The results of research conducted by Wahyuningsih, 2014 show that some respondents in terms of self-management are still negative about the ability of DM sufferers to carry out self-management in Rinanda's 2006 theory that self-management strategies include a will from within to always maintain stable blood sugar, while most do not know how to exercise self-control and have not been able to comply with something that has been determined in maintaining self-care.

According to Wahyuningsih, (2014), the ability of each individual is different, the level of individual effectiveness in carrying out self-management is influenced by the extent to which individuals are able to maintain, maintain and develop the four aspects possessed by someone who has good self-management. These aspects include health, skills or expertise, activities and identity. In people with Diabetes Mellitus, self-management is how DM sufferers manage their diet, exercise, routine check-ups, and taking medication, this needs to be done to prevent serious complications.

Self-management is defined in different ways, namely: Individual care for their own health and well-being; it consists of the actions they take for a healthy lifestyle, to meet social, emotional and psychological needs, treat their long-term conditions, and to prevent further illness (lieshout, 2014) According to Antari, Rasdini and Triyani (2011), with the existence of social support really helps people with type 2 DM to be able to increase confidence in their ability to carry out self-care. Patients with good social support will have a feeling of security and comfort so that a sense of concern for themselves will grow and increase motivation to carry out disease management in terms of self-management.

3.2. The Relationship between Respondent Characteristics and Self-Management of DM Patients at Aionon Clinic

Relationship between Age Characteristics and Self-Management

Analysis of the relationship between age and diabetes self-management in this study showed that there was no significant relationship between age and diabetes self-management. The results of research conducted by Ariyani stated that there was no relationship between age characteristics and self-efficacy. Vivienne et al (2007) also explained that age is not related to diabetes self-care.

Wu, et al. (2007) also stated that there was no relationship between age, gender, level of education and the self-efficacy of the respondents. The results of this study concluded that age does not affect a person's self-care, self-management and self-efficacy. This study explains that young and older clients show the same diabetes self-management behavior.

The results of the study are inconsistent according to Sousa et al (2005) that age has a relationship with diabetes self-care, which shows that with increasing age there is an increase in

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self-care activities. This is because as we get older, the pattern of thinking also increases related to the benefits that will be obtained if the client performs activities in daily life.

3.3. Gender Relations With Self-Management

Analysis of the relationship between gender and self-management in this study showed that there was no significant relationship between gender and self-management of diabetes. The results of this study are in line with research conducted by Wu, et al. (2007) also stated that there was no relationship between age, gender, level of education and the self-efficacy of the respondents. The results of this study explained that respondents between men and women showed the same diabetes self-management activities. The same thing was explained by Sousa et al (2005) who explained that gender had an influence on diabetes self-care, female sex was better than male sex. Women care more about their health so they try optimally in carrying out independent care of the diseases they experience. The difference from some of the results of these studies is that diabetes self-management activities can be carried out by anyone who is experiencing diabetes, both men and women. Men have the responsibility to control the disease they experience as well as women who always pay attention to their health condition. Someone who has the enthusiasm and motivation within himself to carry out controlling self-care activities in daily life, this behavior will become a responsibility and will become a habit in everyday life.

3.4. Relationship between education level and self-management

Analysis of the relationship between education level and self-management shows that there is no relationship between education level and self-management. Based on an analysis of the relationship between education and the incidence of Type 2 DM, it can be concluded that there is no significant relationship between education and the incidence of Type 2 DM (Trisnawa, 2013). In contrast to research by Stipanovic (2003) explaining that there is a relationship between education level and self-efficacy and DM self-care behavior, that respondents with high education have good self-efficacy.

According to Ford, Tilley, and Me-Donald, (1998), explained that education positively affects health and glycemic control. Someone who has a good level of education will be more mature in the process of changing himself so that he will more easily accept positive, objective external influences. and open to various health-related information. According to Young (2010 in Gamara, 2013), the level of knowledge of diabetes mellitus care can be influenced by the duration of the disease, level of education and economic factors, so that patients with low levels of education but who have good self-care management skills will also have good results.

3.5. Old Relationship Suffering DM With Self-Management

The results of the analysis between duration of DM and self-management show that there is no relationship between duration of DM and self-management of diabetes. The results of this study are in line with research conducted by Kusniawati (2011) showing that there is no relationship between the length of time suffering from DM and diabetes self-care.

Length of suffering from DM is not related to self-efficacy due to duration of suffering from DM, so that a lot of damage to cells and functions in the body can occur which can cause various kinds of physical and metabolic disorders or serious complications can occur. Someone who has experienced complications will find it difficult to carry out self-care because they experience various kinds of disorders and limitations that lead to low patient self-efficacy (Bernal, et al. 2000).

3.6. Relationship between family support and self-management of DM sufferers at Ainon Clinic

The results showed that there was no relationship between family support and self-management (pvalue=2.743). This is in accordance with research conducted by Nida, 2015 that there is no relationship between social support and self-management $p = (-0.042)$ This is also in accordance with research conducted by Xu et al (2008) found that social support from family members does not directly influencing diabetes self-management behavior. However, family support affects self-efficacy and beliefs, which, respectively, affect self-care (Xu et al., 2008). This

is not in accordance with Jocelyn Sonsona's research, which showed a positive relationship between social support and diabetes self-management behavior.

Self-care management of any disease is self-efficacy. Bandura (1994) explains that self-efficacy is a person's belief in his ability to achieve a level of performance that affects every event in his life. Self-efficacy determines how a person feels, thinks, motivates himself, and behaves from time to time (Beckerle & Lavin, 2013). The concept of self-efficacy is also described as a sense of personal control over desired changes or the belief that individuals can achieve certain behaviors. With regard to self-management, self-efficacy reflects the belief in the patient's ability to organize and integrate self-management behavior both physically, socially, and emotionally in order to create solutions in dealing with problems in everyday life (Yoo et al., 2011).

4.CONCLUSION

1. Most of the respondents who suffer from diabetes mellitus at the Aion clinic have the following characteristics:
 - a. Woman
 - b. Older than >45 years
 - c. His last education was Elementary School
 - d. The family who has been caring for her are husband and children
2. Most of the respondents had poor family support, as many as 22 respondents or 62.9%. While respondents with good family support were 13 respondents or 37.1%.
3. Some respondents had poor self-management of 19 respondents or 54.3% and some had good self-management of 16 respondents or 46.7%.
4. There is no relationship between age and self-management of diabetes (p=0.266)
5. There is no relationship between gender and diabetes self-management (p=1,000)
6. There is no relationship between education level and self-management (p=0.835)
7. There is no relationship between long suffering from DM with self-management diabetes (p=0.270)
8. There is no relationship between family support and self-management DM patients (p=0.274)

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