Relationships Between Family Support and Self-Care To The Quality of Life of Patients With Type II Diabetes Mellitus at Puskesmas Kabaena Barat, Bombana, 2020

Dewi Ulfani*, Safruddin, Sudarman
Universitas Muslim Indonesia, Makassar, Indonesia
* Correspondent Author: Dewiulfani9@gmaill.com

ABSTRACT
Diabetes Mellitus is a substantial problem for global health. This type of chronic disease cannot be cured thoroughly and affects the quality of life of patients. The incidence of Diabetes Mellitus continues to increase both in the world and in Indonesia. So far, more research revealed about the clinical problem of Diabetes Mellitus, so it needs more research on the quality of life. The purpose of this study was to determine the factors affecting the quality of life of type 2 Diabetes Mellitus patients at the Puskesmas Kabaena Barat. Quantitative types, with a cross-sectional research design. Determination of the sample used purposive sampling technique with 35 respondents. The correlation test was performed by using the Continuity Correction test and alternative test Fisher's Exact Test with significance level $\alpha > 0.05$. Research shows that there is a relationship between depression with quality of life of patients with type 2 Diabetes Mellitus (p = 0.001), there was no relationship between family support and quality of life for type 2 diabetes mellitus patients (p = 0.109), there is a relationship between self-care with the quality of life of type 2 diabetes mellitus patients (p = 0.004).
This study concludes the higher the level of individual depression, the fewer individual perceptions of the quality of life of Type 2 Diabetes Mellitus patients. The family support will improve the quality of life for Type 2 Diabetes Mellitus patients, and individuals with less self-care will decrease the quality of life of patients with Type 2 Diabetes Mellitus. It is expected that nurses perform health education, overcoming depression, and increase self-care for patients with diabetes mellitus to improve quality of life.

Keywords: Depression, Type II Diabetes Mellitus, Family support, Self Care, Quality of Life

BACKGROUND

Diabetes mellitus is a global problem that does not consider the social status and the country boundaries in its transmission (International Diabetes Federation, 2020). Diabetes Mellitus is divided, based on the American Diabetes Association in 1997 split into several types, namely Type I Diabetes Mellitus, Type II Diabetes Mellitus, Other types Diabetes Mellitus and Gestational Diabetes Mellitus (Kharroubi, 2015). There were 422 million Diabetes Mellitus patients worldwide and an estimated 1.6 million deaths per year (WHO, 2020). Riskesdas 2018 data for Diabetes is in the 6th position. The prevalence of Mellitus Diabetes based on doctor's diagnosis in people aged ≥ 15 years, the results of Riskesdas 2018 increased to 2% compared to 2013. The number of Diabetes Mellitus of all ages in Indonesia in Riskesdas 2018 is slightly lower than the prevalence of Diabetes Mellitus at age ≥ 15 years, which is 1.5% (Kemenkes RI, 2019). Diabetes Mellitus, the top 10 non-communicable diseases in South East Sulawesi in 2014, Hypertension was ranked 4th and Diabetes Mellitus in 9th, in 2015, the sequence in which Hypertension shifted up to second place while Diabetes Mellitus in fifth. It explicitly indicates the increasing number of patients with Hypertension and Diabetes Mellitus in Southeast Sulawesi annually (Dinkes Sulawesi Tenggara, 2015).

An increasing number of diabetes mellitus patients followed by the incidence of physical complications, heart disease, hypertension, eye disorder, and kidney failure (Meidikayanti & Wahyuni, 2017). Complications of Diabetes Mellitus are divided into 2, namely acute and chronic, neuropathy and neurotropic are microvascular complications. Adikusuma's study revealed that the prevalence of diabetes mellitus is increasing, but research on the quality of life of patients with Diabetes Mellitus is less, so further research is needed (Adikusuma et al., 2016). Teli's study concluded that the quality of life of patients with Diabetes Mellitus varies greatly, more than 80 as much as 24.6% and less than 80 as much as 75.4% (Teli, 2017), the higher the value, the better the quality of life of patients. Quality of life can be defined as the perception of the individual, culture, and value system where they live related to the goals, expectations, and concerns (Tonnetto et al., 2019).

Depression is one of the factors that play a role that affects the quality of life of patients (Jing et al., 2018). Meanwhile, another study conducted by Nuraisyah stated that family support in the form of emotional, appreciation, and instrumental dimensions affects the quality of life of Diabetes Mellitus patients (Nurasiyah et al., 2017). Besides, the Nursing Islamic concept plays a role in the patient's recovery and promotes empathy, respect, and concern for fellow human beings (Amir, 2020).

The study also concluded depression and anxiety have a relationship to the quality of life of patients with Diabetes Mellitus. Another study also revealed the correlation of self-care management with the quality of life of Diabetes Mellitus patients at one of the Makassar health centers with *a p-value* <0.05 (Asnaniar & Safruddin, 2019). Puskesmas Kabaena Barat mention Diabetes Mellitus is in the top 10non-communicable diseases by 2019. In 2018 diabetes mellitus was in the 8th position with 86 people, and in 2019, the sequence of shifts in which Diabetes Mellitus climbed to No. 6 with 122 people, while in 2020, from January to July with 79 people (Puskesmas Kabaena Barat, 2020). Based on the interviews conducted in 3 people with diabetes mellitus at the West Kabaena Bombana health centers, they experienced a low quality of life. They said they often had nightmare sleep, felt physically ill, anxious, and depressed because of prolonged diabetes treatment

METHODS

This study is a quantitative analytical survey using non-experimental research design with cross sectional study approach. This research was conducted on large and small populations, but the data studied are data from a sample taken from the population. Then it will be found relative events, distributions and relationships between variables. The sample in this study amounted to 35 people, family support questionnaire

RESULTS

This research was conducted at the West Kabaena Bombana health center

Univariate Analysis

Frequency Distribution Based on Characteristics of Respondents at Puskesmas Kabaena Barat, Bombana

Characteristics	Total	
	n (35)	**% (100)**
Age		
< 45 years	7	20.0
≥ 45 years	28	80.0
Gender		
Male	14	40.0
Female	21	60.0
Marital status		
Not Married	0	0.0
Married	23	65.7
Widow /widower	12	34.3
Last education		
No school	0	0.0
Not completed in primary school	6	17.1
Graduated from elementary school	5	14.3
Graduated from junior high school	9	25.7
Graduated from senior high school	7	20.0
Diploma / Bachelor degree	8	22.9
Job status		
Does not work	16	45.7
Work	19	54.3
Duration of suffering Diabetes Mellitus (years)		
< 6 years	27	77.1
≥ 6 years	8	22.9
Disease Besides Diabetes Mellitus		
Nothing	9	25.7
Hypertension	15	42.9
Hypercholesterolemia	8	22.9
Cataract	3	8.6

Source: Primary Data, 2020

Based on Table 5.1 shows that in patients with type 2 diabetes mellitus, the most aged ≥ 45 years as many as 28 people (80.0%), more than half were female as many as 21 persons

(60.0%), most marital status are married as many as 23 people (65.7%), Most of them have graduated from junior high school as many as 9 people (25.7%), Most employment status is work as many as 19 people (54.3%), for the duration of suffering from Diabetes Mellitus the most were <6 years as many as 27 people (77.1%), and those who have diseases other than Diabetes mellitus are hypertension as many as 15 people (42.9%).

The Variables Studied
Table 5.2 Distribution of Respondents Based on State of Depression, Family Support, Self Care, Quality of Life for Type 2 Diabetes Mellitus Patients at Puskesmas Kabaena Barat, Bombana

Characteristics	Total	
	n (35)	%(100)
Family support		
Poor	4	11.4
Good	31	88.6
Self Care		
Poor	17	48.6
Good	18	51.4
Quality of Life		
Poor	19	54.3
Good	16	45.7

Source: Primary Data, 2020

Based on table 5.2 shows that more than half of people with Type 2 Diabetes Mellitus have depression, as many as 24 people (68.6%), The most family support is good , as many as 31 people (88.6%) than poor family support, for self care, the most are good, as many as 18 people (51.4%)than the poor self care were 17 (48.6%), and a poor quality of life as many as 19 people (54.3%), rather than a good quality of life as many as 16 people (45.7%).

Bivariate Analysis
Bivariate analysis conducted on two variables that were related or correlated, in this case the independent variable (Depression, Family Support and Self Care) and the dependent variable (Quality of Life) by using Correction Continuity test and alternative test Fisher's exact test where the relationship is said to be significant if $p \leq \alpha$ (0.05) and the relationship is not significant if the p value> (0. 05).

Family Support Relationship with Quality of Life
Table 5.3 Relationship between Family Support and Quality of Life for Type 2 Diabetes Mellitus Patients at Puskesmas Kabaena Barat, Bombana

Family support	Quality of Life						p
	Poor		Good		Total		
	n	%	n	%	n	%	
Poor	4	100	0	0.0	4	100	
Good	15	48.4	16	51.6	31	100	*0,109 α = 0,05
Total	**19**	**54.3**	**16**	**45.7**	**35**	**100**	

*Source: Primary Data, 2020   * Fisher's exact test*

Table 5.3 shows about family support, where respondents who received poor family support and quality of life were 4 people (100%) and a good quality of life as many as 0 people (0.0%), while respondents who received good family support with a poor quality of life were 15 (48.4%) and a good quality of life were 16 people (51.6%).
Based on the results of statistical tests using the alternative Fisher's exact test, the value of p = 0.109> 0.05 was obtained, which means that there is no relationship between family support and quality of life for type 2 diabetes mellitus patients at the West Kabaena Health Center, Bombana Regency.

Relationship Self Care with Quality of Life
Table 5.4. Relationship Self Care with Quality of Life for Type 2 Diabetes Mellitus Patients at Puskesmas Kabaena Barat, Bombana

Self Care	Quality of Life						P
	Poor		Good		Total		
	n	%	N	%	n	%	
Poor	14	82.4	3	17.6	17	100	*0,004 α = 0,05
Good	5	27.8	13	72.2	18	100	
Total	**19**	**54.3**	**16**	**45.7**	**35**	**100**	

Table 5.4 on self-care shows that 14 respondents who received poor self-care and poor quality of life (82.4%) and good quality of life as many as three people (17.6%), and respondents who received good self-care and poor quality of life were five people (27.8%) and good quality of life were 13 people (72.2%).

Based on the results of statistical tests, obtained the value of p = 0.004 <0.05, which means that there is a relationship between self-care and the quality of life of type 2 diabetes mellitus patients at Puskesmas Kabaena Barat, Bombana.

DISCUSSION
Family Support with Quality of Life
Family support is an attitude, action, assessment support, emotional support, and instrumental support (FrieDiabetes Mellitus an, 2010). The purpose of family support is to improve the patient's physical and psychological well-being. In this study, family support with the quality of life of diabetes mellitus patients showed no relationship based on the results of the alternative Fisher's exact test, with the value of p = 0.109> α = 0.05.

It is in line with Suardana's research at Puskesmas Denpasar Selatan with 40 respondents (Suardana, 2015). Another study conducted by Utami showed that there was no relationship between family support and the quality of life of elderly patients with Diabetes Mellitus in the Prolanis group at Kasihan 2 Public Health Center, Bantul, as many as 40 respondents (Utami et al., 2018), however, the quality of life can improve with family support. Cobb & Jones in Mirza argued that support from family cannot be separated, such support proves that family support for Diabetes Mellitus patients is not just attention to physical needs but psychological needs as well as a family understanding of the diseases suffered by family members (Mirza, 2017), This statement is supported by Tamara's research at the Arifin Achmad Regional Hospital, Riau Province with the result of a p-value = 0.030 <0.05, which means that there is a relationship between family support and quality of life. (Tamara et al., 2014).

Based on this, it needs to be educated to the families of patients about Diabetes Mellitus, ask family members, especially those living close to the patient to monitor the patient such as diet and lifestyle, as well as the routine of taking medication and foot care, educate family member about the risk factors and the importance of early detection among other checks blood sugar levels, education and motivation of the need for attention to the support of all members of the family to the improvement of the patient's disease.

Family support on quality of life is believed to be able to provide motivation and stimulus for patients with Diabetes Mellitus Type II so that not only a practical approach, but also through the psychological approach.

Self Care with Quality of Life
The results of this study indicate a relationship between self-care and quality of life of patients with Type 2 Diabetes Mellitus at Puskesmas Kabaena Barat, Bombana, This research is in line with Chaidir at Puskesmas Tigo Baleh with as many as 87 respondents (Chaidir et al., 2017). Minarni's research in the work area of Puskesmas Sinjai Selatan also shows the same thing, there is a relationship between self-care and the quality of life of people with Diabetes Mellitus, this study involved 35 respondents. (Minarni et al., 2018).

Another study was conducted by Jannoo with the titlel "Examining Diabetes Distress, Medication Adherence, Diabetes Self-Care Activities, Diabetes-Specific Quality of Life and Health-Related Quality of Life Among Type 2 Diabetes Mellitus Patients" show that there is a significant relationship between self care and quality of life with type 2 Diabetes Mellitus patients (Jannoo et al., 2017), research was also conducted by Khunkaew in Thailand, this study showed a relationship between quality of life and self-care management among people with Ulcus diabetic in Thailand. (Khunkaew et al., 2019).

The results of this study demonstrate the importance of self-care in patients with Diabetes Mellitus. So the theory of self-care is a theory first proposed by Dorothea Orem (1959), in which self-care can improve human function, development of the group in line with human potential. If self-care is handled properly, it will improve the patient's quality of life. Instead, if self-care is handled poorly, it will negatively impact the quality of life for Diabetes Mellitus patients.

Many factors affect the application of self-care. One of the reasons is the participants felt tired and bored with diabetes treatment should last a lifetime, so even though they know about Diabetes Mellitus treatment, they do not do it regularly. Therefore, nurses/health workers should provide motivation and explanation about the disease suffered by the patient and its complications, education about the Diabetes Mellitus diet, and provide a list of Diabetes Mellitus diet menus as needed, increasing patient motivation to take medication regularly by teaching them to take medication on time, educating patients for regular control in checking blood sugar levels to doctors or health centers, educating and teaching patients about foot care.

CONCLUSION

This research has 2 variables, family support variables unrelated to quality of life, while self care and quality of life is related. Family support as the closest person certainly affects the quality of life even though there was no relationship in this study but many other studies were not in line with this. Self care in this study found a relationship with the quality of life of patients with Type II Diabetes Mellitus. Exercise, diet, physical activity, not smoking and regular foot care can be done as routine and certainly make a positive contribution to patients with Type II Diabetes Mellitus.

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