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The Relationship Between Self Empowerment and Quality of Life In People with Type 2 Diabetes Mellitus at Dr. Ir. Iwan Bokings

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Article Info	ABSTRACT
	Type 2 Diabetes Mellitus is a chronic disease with a significant increase in prevalence and has the potential to reduce quality of life due to complications and long-term management demands. Self-empowerment is an important component in disease management because it plays a role in improving patients' adaptability, confidence, and skills, which can further affect quality of life. This research aims to determine the relationship between self-empowerment and quality of life in patients with type 2 diabetes mellitus. This study is a quantitative study using a correlational analytical design and a cross sectional approach, involving 67 people who were taken using purposive sampling techniques. Respondents The results of the study showed that the majority of respondents had Self empowerment which was included in the sufficient category as many as 44 people (65.7%) and had quality of life in the moderate category as many as 46 people (68.7%). It shows that the better the level of self-empowerment that the respondents have, the better the quality of life they feel. Based on the results of the Chi-Square test, the p value was 0.009 (p < 0.05). This shows that there is a significant relationship between self-empowerment and quality of life in patients with Type 2 Diabetes Mellitus where the better the level of self-empowerment that the respondent has, the better the quality of life felt.

INTRODUCTION

Type 2 Diabetes Mellitus (DMT2) is a global health challenge that continues to show an increasing incidence rate, including in Indonesia. As a chronic disease, this condition has the potential to cause various serious complications such as disorders of the cardiovascular system, nerve damage (neuropathy), and kidney failure. In addition, diabetes also has a significant impact on the decline in the quality of life of sufferers, especially due to psychological stress and the demands of disease management that must be carried out every day.

Based on data from the *International Diabetes Federation* (IDF) in 2021, there are 537 million adults aged 20-79 years or 1 in 10 people living with diabetes worldwide. Indonesia is fifth with 19.47 million people with diabetes with a population of 179.72 million (IDF, 2021). According to data from the *World Health Organization* **(WHO, 2022),** there are more than **830 million adults worldwide** living with diabetes, with a **prevalence of 14% in 2022**. Interestingly, more than **59% of adult patients aged 30 years and above** did not receive proper treatment. This fact indicates a **large gap between the number of sufferers and access to health services**.

Data from the Basic Health Research (Riskesdas) in 2018 shows that the prevalence of diabetes mellitus increased from 6.9% in 2013 to 8.5% in 2018, and the estimated number of sufferers in Indonesia is

higher than other diseases such as heart attacks, strokes, etc. More than 16 million people are affected by the disease. Blindness and kidney failure can result in paralysis and even death (Riskesdas, 2018). Meanwhile, the latest data from the 2023 Indonesian Health Survey (SKI) shows that the prevalence of DM has increased to 11.7%, which means that more than 1 in 10 Indonesian adults have DM. (Ministry of Health of the Republic of Indonesia, 2023).

Based on data from the Gorontalo Provincial Health Office in 2024, the number of DM sufferers was recorded at 23,585 people spread across several regions, namely Pohuwato Regency 827 people, Gorontalo City 2,886 people, North Gorontalo Regency 2,368 people, Gorontalo Regency 6,203 people, Bone Bolango Regency 5,206 people, and Boalemo Regency 6,095 people. This data shows that Boalemo Regency ranks second with a fairly high number of cases (Gorontalo Provincial Health Office, 2024)

Boalemo Regency has one of the health facilities that provide referral services for DM patients, namely Dr. Ir. Iwan Bokings Hospital, with the number of patient visits continuing to increase every year. Based on medical record data from Dr. Ir. Iwan Bokings Hospital, the number of DM sufferers has shown a fairly high trend in the last four years. In 2022, there were 299 cases, a significant increase in 2023 to 486 cases. In 2024, this number will increase again to 499 cases. Meanwhile, in the period from January to August 2025, the number of sufferers has reached 291 cases. The increase in cases from year to year shows that DM is still a serious health problem in the Boalemo Regency area, especially in Paguyaman Distric.

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Diabetes Mellitus is a chronic disease that not only affects physical conditions, but can also hinder the sufferer's daily activities. The impact is felt in various aspects of life, which ultimately decreases the quality of life. Based on the survey results, about 52.8% of individuals with diabetes experienced a decrease in quality of life compared to those who were healthy. Physiological and psychological factors also contributed to the decline (Rahman & Primanita, 2024).

A person's decline in quality of life will be related to functional abilities, disabilities and worries due to illness which consists of several dimensions, namely physical health, psychological health, social relationships and the environment. Low quality of life results in complications that lead to disability or death, (Puspitasari, 2020).

Low quality of life makes the state of the disease worse, and conversely diseases can affect people's quality of life, especially chronic diseases that are very difficult to cure, including diabetes. The decrease in the quality of life of DMT2 patients is caused by the fact that the patient is unable to carry out treatment independently. It is important to measure the quality of life in people with diabetes mellitus because of its prevalence which is continuously increasing globally, including in Indonesia. Thus, it is necessary for the internal ability of the individual to remain able to face the challenges of the disease experienced. One of the approaches that has an important role in supporting DM sufferers to maintain and improve their quality of life is *Self-empowerment*. (Syatriani et al., 2023).

Self-empowerment is a person's ability to control their health care and make the right decisions regarding the condition of the disease experienced. A number of studies prove that *Self-empowerment* contribute significantly to improving the quality of life of patients, both in physical, psychological, social, and economic aspects (for example, a study in Denpasar found a very strong correlation between *Self-empowerment* and quality of life, r = 0.841, p = 0.000. (Zhafirah & Palupi, 2019). while intervention tests *Self-empowerment* showed an overall improvement in quality of life, p < 0.05). (Zuhriah & Fauzi, 2024).

According to the results of interviews and initial observations conducted by researchers at Dr. Iwan Bokings Hospital, data from 10 patients with Type 2 Diabetes Mellitus showed differences in dealing with the disease. 6 of them said they were still confused about managing their diet, lacking confidence in self-care, and feeling anxious about complications. 2 patients admitted that they were sometimes able to manage their disease but found it difficult to maintain consistency. Meanwhile, the other 2 patients already understand the diseases suffered, routinely control and actively implement a healthy lifestyle.

Based on this background, the researcher is interested in raising the title of the study, namely "The Relationship *between Self Empowerment* and Quality of Life in Patients with Type 2 Diabetes Mellitus at Dr. Ir. Iwan Bokings Hospital"

METHODS

This study is a **quantitative** research using **a correlational analytical** design and *a cross sectional* **approach.** The correlational design was chosen because it aims to determine **the relationship between *the self-empowerment* variable (independent variable) and quality of life (dependent variable)** in patients with Type 2 Diabetes Mellitus. The *cross sectional approach* is used because data collection is carried out at

one time at the same time, so that it can describe the relationship conditions of the two variables at the time the study is carried out.

RESULTS
Univariate Analysis
Frequency Distribution of Respondent Characteristics by Age

Table 1. Frequency Distribution of Respondent Characteristics by Age

No.	Age Group	Frequency (n)	Percentage (%)
1	31-40 Years	4	6
2	41-50 Years	21	31,3
3	51-60 Years	30	44,8
4	61-70 Years	12	17,9
Total		67	100

Source : Primary Data (2025)

Based on table 1, it can be seen that most of the respondents in this study are in the age group of 51-60 years with a total of 30 respondents (44.8%) and a small number of respondents are in the age group of 31-40 years with a total of 4 respondents (6%).

Frequency Distribution of Respondent Characteristics by Gender

Table 2 Frequency Distribution of Respondent Characteristics by Gender

Yes	Gender	Frequency (n)	Percentage (%)
1	Male	14	20,9
2	Women	53	79,1
Total		67	100

Source : Primary data (2025)

Based on table 2, it can be seen that most of the respondents were female with a total of 53 respondents (79.1%), and a small number were male with a total of 14 respondents (20.9).

Frequency Distribution of Respondent Characteristics by occupation

Table 3 Frequency Distribution of Respondent Characteristics by occupation

Yes	Jobs	Frequency (n)	Percentage (%)
1	IRT	35	52,2
2	Self-employed	10	14,9
3	Merchant	8	11,9
4	Farmer	7	10,4
5	PNS	7	10,4
Total		67	100

Source : Primary Data (2025)

Based on table 3, it can be seen that most of the respondents have IRT (Housewives) jobs with a total of 35 respondents (52.2%), and a small number of respondents have jobs as civil servants (Civil Servants) with a total of 7 respondents (10.4%) and farmers 7 respondents (10.4%).

Frequency Distribution of Respondent Characteristics by Education

Table 4 Frequency Distribution of Respondent Characteristics by Education

Yes	Education Level	Frequency (n)	Percentage (%)
1	SD	27	40,3

2	Junior High School	20	29,9
3	High School	13	19,4
4	S1	7	10,4
Total		67	100

Source : Primary Data (2025)

Based on table 4, it can be seen that most of the respondents were educated at the end of elementary school with a total of 27 respondents (40.3%), and a small number of S1 education with a total of 7 respondents (10.4).

Frequency distribution of respondent characteristics based on length of DM

Table 5 Frequency Distribution of Respondent Characteristics by length of DM

Yes	Long Suffering from DM	Frequency (n)	Percentage (%)
1	1-5 Years	25	37,3
2	>5 Years	42	62,7
Total		67	100

Source : Primary Data (2025)

Based on table 5, it can be seen that most of the respondents have suffered from type 2 diabetes mellitus for more than 5 years, namely 42 respondents (62.7%). Meanwhile, respondents with type 2 diabetes mellitus for 1-5 years amounted to 25 respondents (37.3%).

Frequency Distribution of Respondent Characteristics by Comorbidity Disease

Table 6 Frequency Distribution of Respondent Characteristics by Comorbidity

Yes	Patient Comorbidity Disease	Frequency (n)	Percentage (%)
1	Have no comorbidities	51	76,1
2	Having An Underlying Disease	16	23,9
Total		67	100

Source : Primary Data (2025)

Based on Table 6, it can be seen that most of the respondents did not have comorbidities, namely 51 respondents (76.1%), while respondents who had comorbidities amounted to 16 respondents (23.9%).

Frequency distribution of respondent characteristics based on *self empowerment*

Table 7 Frequency distribution of respondent characteristics based on *self empowerment*

Yes	*Self empowerment*	Frequency (n)	Percentage (%)
1	Less	6	9,0
2	Enough	44	65,7
3	Good	17	25,4
Total		67	100

Source : Primary Data (2025)

Based on Table 7, it can be seen that most of the respondents have a level of *self-empowerment* in the sufficient category, namely as many as 44 respondents (65.7%). Meanwhile, respondents with *good self-empowerment* category amounted to 17 respondents (25.4%), and only 6 respondents (9.0%) were in the less category.

Frequency distribution based on quality of life

Table 8 Frequency distribution of respondent characteristics based on quality of life

Yes	Quality of Life	Frequency (n)	Percentage (%)
1	Low	2	3,0
2	Medium	46	68,7

3	Height	19	28,3
Total		67	100

Source : Primary Data (2025)

Based on Table 8, it is known that most of the respondents have a medium quality of life, namely 46 respondents (68.7%). Furthermore, 19 respondents (28.3%) had a high quality of life category, while only 2 respondents (3.0%) were in the low category.

Bivariate Analysis
The relationship between *self-empowerment* and quality of life in patients with type 2 diabetes mellitus at Dr. Ir. Iwan Bokings Hospital.

Table 9. Analysis of the relationship between *self-empowerment* and quality of life in patients with type 2 diabetes mellitus at Dr. Ir. Iwan Bokings Hospital.

Yes	*Self empowerment*	Quality of Life of Type 2 DM Patients								*p value*
		Low		Medium		Height		Total		
		n	%	n	%	n	%	n	%	
1	Less	0	0	4	66,6	2	33,4	6	100	
2	Enough	1	2,3	28	63,6	15	34,1	44	100	0,009
3	Good	1	5,8	14	82,4	2	11,8	17	100	
Total		2	3,0	46	68,7	19	28,3	67	100	

Source : Primary Data (2025)

Based on table 9, it shows that from 67 respondents, the results were obtained of respondents with *less self-empowerment* and low quality of life as many as 0 respondents (0%), less *self-empowerment* and moderate quality of life as many as 4 respondents (66.6%), and *less self-empowerment* and high quality of life as many as 2 respondents (33.4%). Respondents who had sufficient *self-empowerment* and had a low quality of life were 1 respondent (2.3%), *self-empowerment* was sufficient and had a moderate quality of life as many as 28 respondents (63.6%), and *self-empowerment* was sufficient and had a high quality of life as many as 15 respondents (34.1%). Respondents who had *good self-empowerment* and had a low quality of life were 1 respondent (5.8%), *self-empowerment* was good and had a moderate quality of life as many as 14 respondents (82.4%), and *self-empowerment* was good and had a high quality of life as many as 2 respondents (11.8%).

DISCUSSION
***Self Empowerment* in Patients with Type 2 Diabetes Mellitus at Dr. Ir. Iwan Bokings Hospital.**
Based on the results of the study conducted on 67 respondents, it was known that respondents had a level of *self-empowerment* in the good category of 17 people (25.4%), 44 people (65.7%), and 6 people (9.0%) in the poor category. From these results, it can be concluded that most of the respondents have empowerment cells in the sufficient category. This category shows that in general respondents have basic understanding and skills in the management of Type 2 Diabetes Mellitus. However, it is not completely optimal. This is supported by the results of the *Diabetes Empowerment Scale (DES)* questionnaire, where the questionnaire item that was answered positively by respondents was the statement "I can cope with the stress caused by diabetes". These findings show that respondents already have the ability to adapt and psychological coping to diabetes, but these abilities have not been optimal to the stage of diabetes decision-making and management.

The results of this study are in line with the research conducted by Anggreni (2025) with the research title "Relationships *Self-empowerment* with quality of life in patients with type 2 diabetes mellitus at the South Denpasar Health Center" of 75 respondents, the majority of whom have *Self-empowerment* It is enough, namely 49 people (65.3%). This study explains that DM patients tend to have sufficient coping skills, but still need education and assistance to increase independence in disease management. *Self empowerment* In people with type 2 diabetes mellitus, it can be affected by a person's ability to control decisions that impact their health. This includes awareness in making decisions independently, confidence in yourself, and a commitment to continue to develop your potential to create positive changes in life. (Syatriani et al., 2023). One of the reasons for making the right health decisions is influenced by the level of education where patients with higher levels of education have the individual ability to understand health information, filter relevant information, and use it to. This is in line with the concept *Health Literacy* which is important for DM patients in managing their disease (Lee, 2025).

Most of the respondents who have sufficient self-empowerment have a high level of education. This research is in line with research conducted by Nurhayani (2021) that education has a significant relationship with self-empowerment with the power of strong and positive relationships. This can be interpreted that the

higher a person's education, the better the self-empowerment. The results of the researcher's analysis show that the higher the level of education, the higher the self-empowerment. Higher education absorbs information faster, is more active in seeking health information through social media, print or electronic media and information from other health workers. In accordance with the theory stated by Robiah, F. (2020) education affects a person's absorption of information so that it can affect the level of understanding of diabetes mellitus. Good understanding is expected to increase self-empowerment so that they can decide on health problems.

According to the theory put forward by Rahman & Primanita (2024), the management of type 2 diabetes mellitus not only includes physical aspects, but also includes emotional and psychological dimensions. When individuals feel in control of their lives, this can improve emotional well-being and reduce stress from chronic diseases such as diabetes. This condition creates a healthier mental atmosphere, which ultimately has a positive impact on the overall physical condition. Powers (2020) stated that *self-empowerment* in people with diabetes mellitus is a process that develops progressively through increasing understanding and self-care skills so that individuals are able to play an active role in making decisions related to their health.

In addition, the results of this study also show that there are respondents with *higher self-empowerment*, namely in the good category as many as 17 respondents (25.4%). It is also supported by the theory from (Mayer-Davis et al., 2017) which explains that emotional intelligence has an important role in helping Diabetes Mellitus (DM) patients manage stress due to uncontrolled emotional loads. Patients often show intense feelings, such as anger, anxiety, and anxiety when they think that their health conditions may limit various aspects of their lives, as well as worry about possible long-term complications. *Good self-empowerment* in patients with type 2 Diabetes Mellitus is inseparable from the role of emotional intelligence and psychosocial factors, including gender. Women tend to have advantages in aspects of empathy, emotion regulation, and more active health-seeking behaviors through social and community interactions, which can ultimately strengthen *self-empowerment* in the management of diabetes (Petrides et al., 2021; Heise et al., 2022).

The results of this study are in line with the previous explanation where respondents with good self-empowerment are mostly female respondents, this is in line with the research conducted by (Anggreni, 2025), namely as many as 49 people (65.3%), mostly women. Theori (Nuari, 2018), explains that in the psychosocial aspect, women are more active in seeking information, where women are more members of certain communities that allow them to get more information than men, with this women will know more information related to health or disease management. In addition, women are more often dissatisfied with their condition so they want to create changes in their condition compared to men, it can be assumed that women participate more in their health check-ups including in regulating their diet, in general women pay more attention and care about their health and undergo treatment more often than men (Pramesti and Adiatmika, 2018)

This study also resulted in a shortage category of 6 people (9.0%). The respondents who have less *self-empowerment* are known to have a low level of satisfaction with how to manage type 2 diabetes mellitus. The results of the study are in line with the research conducted by Fadhlul Rahman & Rida Yana Primanita (2024) who explained that there is a close relationship between *self-empowerment* and stress levels with a *p value* (0.000). An individual's ability and skills to manage and control themselves to treat the disease they suffer from can increase *self-empowerment* in people with diabetes (Shera et al., 2024).

Quality of Life in Patients with Type 2 Diabetes Mellitus at Dr. Ir. Iwan Bokings Hospital.

Based on the results of the study conducted on 67 respondents, it is known that most of the respondents have a level of quality of life in the medium category, namely 46 people (68.7%), the high category is 19 people (28.3%), and the low category is 2 people (3.0%).

The results of the study found that 2 respondents had a low quality of life, this result was supported by a questionnaire which had a low quality of life because of the lack of family support in undergoing diabetes mellitus treatment. The results of a study from Ulfani, et al. (2021) entitled *Realitions ship between family support and self-care to the quality of life of patients with type 2 diabetes mellitus at* Puskesmas Kabaena Barat Bombana 2020 that as many as 19 respondents (54.3%) with poor quality of life, in this study patients get a poor quality of life because there is a need to educate the patient's family about diet, lifestyle and taking medication for the DM patient.

In addition, the results of the study of Luthfa, et al., (2019) showed that 62 respondents (51.7%) received poor support from their families. Family support will provide assistance from other family members so that it will provide physical and psychological comfort for people who are facing stressful situations (Yamin & Sari, 2018). This is in line with Research conducted by Arnita (2023) where in her research the majority of respondents were elderly (53.84%), with female gender (86.92%). Furthermore, Gálvez et al., (2021) explain that although paradoxically, women have a longer life expectancy, they tend to perceive a poorer quality of life to their health status.

The results of the study conducted on 67 respondents found that most of the respondents had a level of quality of life in the moderate category, namely as many as 46 people (68.7%), respondents explained that they still often eat foods that diabetics should not eat. This is in accordance with the research of Anggraini and

Herlina (2022) who found that there is a relationship between diet and blood sugar levels in people with type 2 diabetes. People with poor diets will tend to have uncontrolled Blood Sugar Levels than people with good diets tend to have controlled Blood Sugar Levels (Anggraini & Herlina, 2022).

In her research, Arnita (2023) showed that some respondents with the last education were high school (51.54%). A person's education is closely related to his knowledge. Patients with DM with low education have a low quality of life because they do not have adequate knowledge and experience in self-care (Abedini et al., 2020). This is in accordance with the findings of the researcher where the majority of respondents whose quality of life is quite at the level of secondary education.

Respondents with higher education levels are able to understand their illness better, are able to make healthier lifestyle changes and have a quality life. However, in contrast to the results of research by Diriba et al., (2023) which show that the higher the education or knowledge about DM, the lower the quality of life of sufferers. This is possible because the sufferer knows clearly the complications of DM so this is what causes his quality of life to decrease. Likewise, the results of research by Irawan & Fatih (2021) which stated that there was no correlation between education and quality of life in DM patients. Knowledge is not only obtained from formal education, but is obtained from anywhere. DM sufferers who have low education but have a good quality of life, because they actively get information.

The results of this study also resulted in as many as 19 respondents having a quality of life that was included in the high category. According to the analysis conducted, the author found that the 19 respondents had good knowledge of type 2 diabetes mellitus that was being undergone. This is in line with research conducted by Rusmayanti (2024) which showed that the majority of respondents at the Banjarmasin Terminal Health Center, namely 30 people (55.6%), had good knowledge about Type 2 Diabetes Mellitus (DM), the majority of respondents showed that they had good knowledge and habits of seeking information related to their disease conditions. This has the potential to assist them in maintaining a healthy lifestyle, preventing disability, and reducing the risk of complications. The theory put forward by Sormin & Tenrilemba (2019) states that the treatment of diabetes mellitus will certainly be easier for someone who has a high level of understanding. DM if not treated properly can lead to various complications. DM will also accompany the sufferer for life, so that it greatly affects a person's quality of life (Suwanti et al., 2021).

This is in line with the research conducted by Anggreni (2025) with the research title "The relationship *between self-empowerment* and quality of life in patients with type 2 diabetes mellitus at the South Denpasar Health Center" from 75 respondents, the majority *of respondents had sufficient self-empowerment*, namely 49 people (65.3%). These findings show that the majority of patients are still able to carry out daily life activities, but still feel certain limitations due to chronic diabetes. The quality of life in the moderate category generally reflects a balance between the patient's adaptability and the impact of the disease that is still felt physically and psychologically. These results are in line with various studies that state that Type 2 Diabetes Mellitus patients are often at a moderate level of quality of life due to the demands of long-term disease management and the risk of accompanying complications (Putri & Handayani, 2021).

Furthermore, Arnita (2023) in her research also showed that the majority of respondents had suffered from DM for a long period of time, namely more than 5 years (96.15%). ini in accordance with the results of research conducted by Diriba et al., (2023) which showed that the length of suffering from DM had a negative effect on quality of life. Those who suffer from DM for a long time tend to continue to do *regular self-management* and this becomes their routine so that their health improves, but on the other hand they will be saturated with the treatment activities. This is what causes their quality of life to decrease and if they experience complications such as diabetic ulcers, it will worsen/worsen their quality of life (Gálvez et al., 2021); (Alshayban & Joseph, 2020).

Social aspects also play an important role in determining the quality of life of people with Type 2 Diabetes Mellitus. Family support, a work environment, and positive social interactions can help patients adapt to their illness and increase confidence in managing diabetes. The results of the study showing that the majority of respondents are in the moderate quality of life category can indicate that the social support received is quite helpful, but not optimal in improving the quality of life to a higher level. Previous research confirms that patients with good social workers tend to have a higher quality of life compared to patients with low social support (Sari & Wahyuni, 2023).

Based on the results of the study, most of the respondents with Type 2 Diabetes Mellitus did not have comorbidities, which was 76.1%, while 25.9% of respondents had comorbidities such as hypertension or other chronic diseases. This condition plays an important role in affecting the quality of life of patients, Because the presence of comorbidities can increase the physical and psychological burden, complicate the management of therapy, and increase the risk of complications. Patients without comorbidities tend to have a better quality of life due to simpler disease management and lower levels of health stress. In contrast, patients with comorbidities often experience a decrease in quality of life due to limited activities, increased treatment costs, and the need for more intensive health control. These findings are in line with research that states that the presence of comorbidities is significantly related to a decrease in quality of life in Type 2 Diabetes Mellitus patients (Li et al., 2021).

The results of this study as a whole illustrate that the quality of life of Type 2 Diabetes Mellitus patients is still dominated by the moderate category, which shows the need for continuous interventions to improve the quality of life of patients to a better level. Efforts to improve the quality of life can be carried out through health education, strengthening self-management, increasing family support, and multidisciplinary approaches in health services. These findings are in line with various recent studies that emphasize that improving the quality of life of diabetic patients requires a holistic approach that focuses not only on blood glucose control, but also on the psychosocial and environmental aspects of the patient (WHO, 2023).

The Relationship *between Self Empowerment* and Quality of Life in Patients with Type 2 Diabetes Mellitus at Dr. Ir. Iwan Bockings Hospital.

The results of this study showed a significant relationship between *self empowerment* and quality of life in patients with Type 2 Diabetes Mellitus, with a p value = 0.009 (p < 0.05). These results show that the better the level of *self-empowerment* that the respondents have, the better the quality of life they feel.

Based on the distribution of data on respondents with *less self-empowerment* , most of them have a moderate quality of life, namely 4 respondents (66.6%), and only 2 respondents (33.4%) have a high quality of life. There were no respondents with *less self-empowerment* who had a low quality of life (0%). This condition shows that the low ability of individuals to manage disease, make decisions, and control self-care has an impact on limitations in achieving optimal quality of life.

Meanwhile, in respondents with good self-empowerment, 1 respondent (5.8%) was found to have a low quality of life. This condition can be associated with the severe stress they experience due to feelings of hopelessness due to the chronic illness they are experiencing. As a result, their capacity and productivity decrease. This is supported by research conducted by (Rahman, 2024) where there are 5 respondents (16.7%) who show high self-empowerment but have a low quality of life.

According to (Rahman, 2024), quality of life management in people with diabetes mellitus has undeniable urgency due to the chronic and incurable nature of this disease. While there is no cure that can completely eliminate diabetes, efficiently controlling the condition can prevent or reduce the risk of serious complications. Poor quality of life and psychological problems in people with diabetes not only affect their emotional well-being, but can also affect the hormonal balance and metabolism of the body. Most of them had a moderate quality of life as many as 14 respondents (82.4%), and a small percentage had a high quality of life as many as 2 respondents (11.8%). These results show that the patient's ability to understand the disease, perform self-care, control emotions, and actively participate in therapeutic decision-making plays an important role in improving the quality of life of people with type 2 DM.

Theoretically, low *self-empowerment* reflects the patient's limitations in understanding the disease, making treatment decisions, and managing self-care behaviors optimally. According to Anderson and Funnell (2020), patients with low *self-empowerment* tend to be less active in diabetes management, resulting in instability in disease control and limitations in achieving optimal quality of life. However, quality of life that is still in the medium and high categories in this group indicates the presence of other protective factors that play a role, such as family support, access to health services, or relatively stable clinical conditions. These results are in line with research by Siregar et al. (2021) who found that type 2 DM patients with low levels of *self-empowerment* can still have a moderate quality of life if they receive good social support and adherence to therapy. This shows that the quality of life in people with type 2 diabetes is multifactorial and not only determined by *self-empowerment*.

In the group of respondents with *sufficient self-empowerment*, most of them had a moderate quality of life as many as 28 respondents (63.6%), followed by a high quality of life of 15 respondents (34.1%), and only 1 respondent (2.3%) had a low quality of life. According to self-management theory, patients with self-empowerment have enough basic knowledge and skills in disease management, but are not fully consistent in the application of self-care in a sustainable manner (Lorig & Holman, 2020). This explains why most of the respondents are still at a moderate quality of life, while others have achieved a high quality of life. The presence of one respondent with a low quality of life indicates that sufficient *self-empowerment* is not fully able to overcome the influence of other factors such as complications, long suffering from DM, or psychological conditions.

The results of this study are in line with research by Al-Khawaldeh et al. (2022) which stated that type 2 DM patients with moderate levels *of self-empowerment* tend to have a moderate to high quality of life, but are still at risk of experiencing a decrease in quality of life if they face psychological stress or disease complications. Research by Kusnanto et al. (2023) also shows that increasing *self-empowerment* through continuous education plays an important role in encouraging patients to achieve a more optimal quality of life.

Meanwhile, in respondents with *good self-empowerment* , it was found that 1 respondent had a low quality of life, most of them had a moderate quality of life as many as 14 respondents (82.4%), and a small number had a high quality of life as many as 2 respondents (11.8%). These results show that the patient's ability to understand the disease, perform self-care, control emotions, and actively participate in therapeutic decision-making plays an important role in improving the quality of life of people with type 2 DM.

Self empowerment Having a significant relationship with the quality of life of type 2 diabetes mellitus patients due to good self-empowerment skills can increase the patient's self-confidence, which ultimately has a positive impact on their quality of life. The goal of this process is to help the patient make choices that suit their personal needs, set realistic goals to maintain a healthy lifestyle, and develop critical thinking skills. That way, patients can make decisions independently and based on the right information, and are able to carry out their disease treatment in a sustainable manner. (Syatriani et al., 2023).

Researchers argue that self-empowerment has a major contribution to improving the quality of life of patients with type 2 Diabetes Mellitus. When patients are able to empower themselves, they better understand the condition of the disease, are better able to make decisions related to treatment, and are more disciplined in carrying out blood sugar management. This has a positive impact on physical, emotional, and social health, so that

CONCLUSION

Based on the results of research at Dr. Ir. Iwan Bockings Hospital, it is known that self-empowerment in patients with Type 2 Diabetes Mellitus is mostly in the adequate category, while the majority of respondents' quality of life is in the moderate category. The results of the Chi-Square test showed a p value of 0.009 (p < 0.05), so it can be concluded that there is a significant relationship between self-empowerment and quality of life in patients with Type 2 Diabetes Mellitus at Dr. Ir. Iwan Bokings Hospital.

ADVICE

This research is expected to be useful as a material for evaluating health services in improving the self-management of type 2 Diabetes Mellitus patients through *self-empowerment*, becoming a reference for health workers in intervention planning and education, increasing patient awareness of the importance of self-empowerment in disease management, and becoming a basis for the development of further research related to factors that affect *self-empowerment* and quality of life

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