http://ejournal.seaninstitute.or.id/index.php/healt
Jurnal Eduhealt, Volume 13, No. 02 Desember 2022
ISSN. 2087-3271

Cares Assistance In Developing Independent Treatment Of Type 2 Diabetes Mellitus Patients In Mantuil Village, Banjarmasin Selatan District

Rohni Taufika Sari
Banjarmasin Muhammadiyah University

ARTICLE INFO

Keywords:
Cadres, Self-care, DM type 2

ABSTRACT

The high incidence of Diabetes Mellitus (DM) impacts all aspects of patient life. The main focus of DM management is changing lifestyles. Lifestyle management is fundamental in DM care, such as self-learning management, care support, physical activity, smoking counseling, and psychosocial care. It is hoped that lifestyle changes can improve glycemic control and reduce complications and death. Health cadres are given empowerment programs as motivators and mentors in comprehensive self-care. The main program in community service is assisting cadres in empowering type 2 DM patients. This activity begins with a pre-test by giving questions in the form of a questionnaire. The implementing team provides the material following the contents of the module. The mentoring program is carried out after the material delivery is complete. Assistance for cadres is carried out by directly inviting type 2 DM patients to Mantuil Village, South Banjarmasin District. Partners were divided into small groups of 5-6 people. After being given material presentation and assistance, there was an increase in the partner's ability to empower type 2 DM patients. This increase occurred significantly, namely 85.7%, in the good category.

1. INTRODUCTION

Diabetes mellitus (DM) is a chronic disease caused by the body's inability to produce enough insulin or use insulin (IDF, 2015). There are generally two types of Diabetes mellitus, namely types 1 and 2 (PERKENI, 2015). The incidence of DM is increasing with lifestyle changes. The prevalence of DM in 2015 was 415 million world population aged 20-79 and is predicted to increase to 642 million in 2040 (IDF, 2015). The number of people with type 2 DM is estimated to be 500 million worldwide in 2018, this number is predicted to increase, and a sharp increase will occur in low-income countries (Kaiser, Zhang, 2018). The incidence of DM in Indonesia was 2.1% of the population in 2013, and the highest occurred in Central Sulawesi, with an incidence of 3.7%. In South Kalimantan, the incidence was 1.5% of the South Kalimantan in 2013 (Ministry of Health, 2013).

The high incidence of DM impacts all aspects of the patient's life. Impact on health status, economy, and death. Deaths due to DM amounted to 1.6 million worldwide in 2015 (WHO, 2017). DM treatment costs reached 673 trillion in 2015 (IDF, 2015). For that, good management is needed. The main focus of DM management is changing lifestyles. Lifestyle management is fundamental in DM care, such as self-learning management, care support, physical activity, smoking counseling, and psychosocial care (ADA, 2017). It is hoped that lifestyle changes can improve glycemic control and reduce complications and death

Indicators of glycemic control include fasting blood glucose, blood glucose 2 hours after eating, blood pressure, blood fat levels, and HbA1C (PERKENI, 2015). There are still many DM patients who have not been able to achieve glycemic control indicators. Achievement of glycemic control targets is still low. Report results from the National Health and Nutrition Examination Survey (NHANES) show that only 50% of adult DM patients in America achieve HbA1C below 7.0. The Healthcare Effectiveness Data and Information Set (HEDIS) reports that 40% of DM patients with private

insurance and 30 % with government insurance achieve HbA1C below 7.0 (Edelman SV and William HP., 2017). The results of Riskesdas showed that 6.9% of those over 15 years experienced hyperglycemia (Ministry of Health, 2013).

Achievement of glycemic control that is not optimal can cause both acute and chronic complications. One of the chronic complications is peripheral neuropathy. The prevalence of neuropathy in young type 1 DM patients is 7%, and for Type 2 young people are 22% (Jaiswal et al., 2017). The incidence of neuropathic pain in type 2 DM patients is 26.4% (Azrimaidaliza, 2017). It was found that 48.1% of type 2 DM patients experienced neuropathy (Setyorini, 2017).

Another complication is vascular disorders characterized by decreased ankle-brachial index (ABI). A low ABI is related to the duration of suffering from DM. A low ABI in DM patients is associated with atherosclerosis (Prabowo, 2021, Afida, 2022).

Efforts to achieve glycemic control targets include empowering DM patients d. Empowerment is the value of belief to do something in society and a theoretical model of self-control in making decisions about one's life (Setyorini, 2017). Empowerment is an activity to improve the quality of one's life. DM patients are empowered to help themselves to treat their disease. The study found that the empowerment of DM patients was 36.7% high, 30.0% moderate, and 30.3% low, and the quality of this empowerment was positively correlated with the management of DM therapy (Cunha et al., 2015).

Empowerment programs for DM patients provide understanding and action to adapt to their disease and be independent in their care. Empowerment of type 2 DM patients is influenced by educational factors, age, gender, and duration of suffering from DM (Prabowo, 2021, Afida, 2022). Empowering families of type 2 DM patients can improve HbA1C and fasting blood glucose (Isworo et al., 2018, Negara, 2019). Health empowerment programs improve the quality of life for low-income families in Hong Kong (Fung et al., 2016, Negara, 2017). Other research shows that family empowerment can improve the quality of life for families and children with growth disorders (Wakimizu et al., 2017, Al Mahdi, 2020).

Data from the South Banjarmasin Health Center show that the number of type 2 DM patients is large and tends to increase yearly. The number of type 2 DM patients was 1300 in 2018 and 1500 in 2019. 110 type 2 DM patients were recorded from the Mantuil sub-district of South Banjarmasin. Based on outpatient data at the Banjarmasin Selatan I Community Health Center, it was found that fasting blood glucose levels in type 2 DM patients who are located in the Mantuil sub-district are between 180-250 mg%. The manual village has health cadres who regularly carry out posyandu activities.

Based on some of these things, a cadre approach is developed to develop an empowerment program for type 2 DM patients. Health cadres are given empowerment programs as motivators and mentors in comprehensive self-care.

2. METHODS

Community service assists health cadres in empowering type 2 DM patients to carry out independent care. The mentoring program is carried out in groups and stages. The empowerment methods used in this program are the behavioral change model (Sharifirad, Moazam, Tol, Alhani, & Shojaeazadeh, 2015). The model consists of five stages. The first stage is the exploration of the problem the patient has experienced. The second stage is the clarification of current feelings and self-understanding. The third stage is to develop plans regarding DM treatment. The fourth stage is the commitment to carry out the plans that have been prepared. The last stage is the experience and evaluation of the plans that have been implemented. In the third stage of the behavior change program, namely the formulation of a plan, education will be carried out about type 2 DM so that patients understand about type 2 DM and can develop their treatment plans. The target of this community service program is health cadres in Mantuil Village. The target was 20 people (type 2 DM patients in the Mantuil Village area). This community service program is carried out in groups and stages.

3. RESULTS AND DISCUSSION

Community service regarding assisting cadres in developing self-care for type 2 DM patients is carried out in the Manual Village, South Banjarmasin District. Manual is an area of South Banjarmasin

City consisting of 14 customary hamlets. The partners of the community partnership program are health cadres, totaling 42 people, all of whom are women. All of them graduated from high school

The main program in community service is assisting cadres in empowering type 2 DM patients. The activity began with a meeting with the Village/Kelurahan and partners on September 3, 2021. The next meeting on September 7, 2021, was to present material about empowering type 2 DM patients. Activities It begins with a pre-test by giving questions in the form of a questionnaire. The implementing team provides the material following the contents of the module. The mentoring program is carried out after the material delivery is complete. Assistance for cadres is carried out by inviting type 2 DM patients directly to the Manual Village.

After presenting the material and providing assistance related to empowering type 2 DM patients, the results are shown in Table 1.

No	Empowerment ability level	Before		After	
		Amount	Percent	Amount	Percent
1	Well	2	4.8%	38	90.5%
2	Enough	6	14.3%	3	7.1%
3	Not enough	34	81.0%	1	2.4%
	Amount	42	100	42	100

Based on Table 1, it can be said that after the presentation of the material and the assistance of health cadres in the development of self-care for patients with Type 2 DM, there was an increase in the ability of partners to empower patients with type 2 DM. This increase occurred significantly, namely 85.7%, in the good category.

The main focus of DM management is changing lifestyles. Lifestyle management is fundamental in DM care, such as self-learning management, care support, physical activity, smoking counseling, and psychosocial care. It is hoped that lifestyle changes can improve glycemic control and reduce complications and death. Glycemic control indicators include fasting blood glucose 2 hours after eating, blood pressure, blood fat levels, and HbA1C. There are still many DM patients who have not been able to achieve glycemic control indicators. The achievement of glycemic control targets for Type 2 DM patients in the Mantuil Village is still low.

Empowering families of type 2 DM patients can improve HbA1C and fasting blood glucose (Isworo et al., 2018). The health empowerment program improves the quality of life for low-income families in Hong Kong (Fung et al., 2016). Other research shows that family empowerment can improve the quality of life for families and children with growth disorders (Wakimizu et al., 2017). Achievement of glycemic control that is not optimal can cause both acute and chronic complications.

By assisting health cadres in empowering self-care for type 2 DM patients, it is hoped that glycemic control targets for Type 2 DM patients can be increased so that acute and chronic complications can be prevented. Empowerment programs for DM patients provide understanding and action to adapt to their disease and be independent in their care.

4. CONCLUSION

The high incidence of DM has an impact on all aspects of the patient's life, has an impact on health status, economy and death. The main focus of DM management is changing lifestyles. Lifestyle management is fundamental in DM care, such as self-learning management, care support, physical activity, smoking counseling, and psychosocial care. It is hoped that lifestyle changes can improve glycemic control and reduce complications and death. Empowerment of families of type 2 DM patients can improve HbA1C and fasting blood glucose. By assisting health cadres in empowering self-care for type 2 DM patients, it is hoped that glycemic control targets for Type 2 DM patients can be increased so that acute and chronic complications can be prevented.

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