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# Health Education Related Nutrition Pattern to Increase Quality of Life of Type 2 DM Patients

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Lectures of Sekolah Tinggi Ilmu Keperawatan Muhammadiyah Pontianak 

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#### **ABSTRACT**

Diabetes Mellitus (DM) is a non-communicable disease whose prevalence is increasing every year in the world, including in Indonesia. DM patients are very susceptible to ulcers caused by uncontrolled blood sugar due to the wrong diet. The low level of knowledge related to eating patterns is a problem that must be addressed so that the incidence can be suppressed. In this case, education is needed to increase the understanding of patients and families in terms of eating patterns. The right diet or eating pattern will certainly be one aspect in improving the quality of life of type 2 DM patients. The purpose of this activity is to increase knowledge, especially in the right diet in type 2 DM patients, it is hoped that it can improve the quality of life of type 2 DM patients by controlling blood sugar due to a good diet. The method used is to provide counseling with lecture, discussion and question and answer methods. The targets of this community service program are patients suffering from type 2 DM and their families in Sungai Ambangah village, Kubu Raya district. The results of this activity indicate that the effectiveness of counseling has an effect on increasing knowledge of type 2 DM patients and their families. This can be seen from the evaluation results that people with type 2 DM and their families understand the right diet for people with DM.

Keywords: Diet, nutrition pattern, health education for DM patients, Quality of life.

## **INTRODUCTION**

Diabetes mellitus (DM) is one of the non-communicable diseases (PTM) which is included in the chronic disease of DM which is characterized by chronic hyperglycemia conditions due to the pancreas not being able to produce sufficient insulin or the body's ineffectiveness in using insulin or both where the incidence continues to increase every year (Prawitasari, 2019). Based on the Basic Health Research (RISKESDAS) in 2018, DM is one of the PTM whose prevalence rates continue to increase significantly which in 2013 was only 6.9% and increased to 8.5% in 2018 (Katadi et al., 2019). Of the several types of DM, type 2 DM cases are the most common DM cases (Bertalina & Purnama, 2016).

Data from the International Diabetes Federation (IDF) states that there were 382 people with DM in the world in 2013 and it is estimated that this will continue to increase in 2035 to more than 592 million sufferers. It is estimated that of the 382 million people, 175 million of them have not been diagnosed, so they are in danger of developing progressively into complications without realizing it and without realizing it (Kemenkes RI, 2014). Indonesia is a country in the Western Pacific region based on regional division by the IDF where this region is ranked first as the region with the most DM sufferers, reaching 138.2 million in 2013 and is expected to increase in 2035 to 201.8 million DM sufferers.

Many factors influence the incidence and increase in the prevalence of DM. These factors include age, physical activity, body mass index (BMI), immediate exposure, blood pressure, stress, family history, HDL cholesterol, triglycerides, gestational diabetes mellitus, history of glucose abnormalities and other components. In addition to these factors, lifestyle factors,

especially those related to diet, are one of the factors that are often uncontrolled (Nababan et al., 2020)

The increase in the incidence of DM above controlled factors is always followed by an increase in the incidence of complications. Complications experienced by patients include physical, psychological, social and economic complications. One of the complications that often arises is physical complications that arise in the form of gangrene which can affect the quality of life of the sufferer (Meidikayanti & Wahyuni, 2017). One of the factors that can improve the quality of life is with family support related to a healthy diet or proper eating patterns (Noviarini et al., 2013).

Another way that can be used to improve the quality of life of people with diabetes is through health education. Health education is the main prevention key to improve, maintain, and change the environment through knowledge (Noviati et al., 2021). One of the roles of nurses related to this is the role of educators. Where nurses can increase knowledge, provide information and change the behavior of respondents in a more positive direction (Oktorina et al., 2019). Health education is carried out to increase the knowledge of patients and their families regarding the right diet for people with DM.

The targets of this community service are patients suffering from type 2 DM and their families and communities in the Sungai Ambangah village. The targets and results achieved after the implementation of community service, almost 90% of the counseling participants understand the right diet for DM sufferers. One of the factors behind community service in Sungai Ambangah Village is the location of the area, the lack of health facilities and health workers that are not proportional to the population, the incidence of DM and lack of knowledge related to proper eating patterns due to lack of exposure to information so that blood sugar control bad and frequent relapses. Many sufferers, families and communities are still mistaken about eating patterns. This is a problem and a factor why patients do not recover. So that health education with counseling methods related to diet is needed to improve the quality of life of people with diabetes mellitus.

## **METHOD**

This community service activity is carried out by providing health counseling related to the right diet for DM sufferers and is carried out using lecture, discussion, and question and answer methods. Participants go through to see the extent of understanding related to the material provided. The tools used in these activities are laptops, infocus and leaflets related to the diet of people with diabetes. The population and sample in this activity are type 2 DM sufferers and their families living in Sungai Ambangah Village. The venue for the event is in the Sungai Ambangah Village office hall, in February 2022.

## **RESULTS**

This community service activity was attended by 37 patients and their families from Sungai Ambangah Village. Health education related to proper diet for DM sufferers is carried out using lecture, discussion, and question and answer methods. The evaluation results obtained were almost 90%, participants were able to answer the questions given related to the material presented. This shows that sufferers and their families who take part in this activity know and understand the material that has been delivered by the speaker.

## **DISCUSSION**

DM patients are very susceptible to hyperglycemia and recurrence if the factors that cause DM are not handled properly. This problem often occurs in people with DM due to lack of exposure to information, one of which is related to diet. Inappropriate dietary factors are often the cause of uncontrolled blood sugar in DM patients so that it can cause and worsen complications and prolong healing time. Knowledge related to diet is a basic thing that must be well understood by the community, especially DM sufferers themselves and their families. However, for some patients who live in areas far from the city center with inadequate health

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facilities and personnel, this will be a problem in itself, one of which is the difficulty of getting access to health information. For this reason, health education, one of which is in the form of health education, is still very necessary in controlling the incidence and recurrence of DM.

Health education through lecture and discussion methods is one way to increase knowledge and change the behavior of DM sufferers towards healthy behavior, especially related to diet. The lecture method is a way of explaining an idea, understanding, or message orally to a target group to obtain health information and this method is often chosen because it is considered the most effective and economical method of delivering information. In the implementation of counseling, counseling participants consisting of DM sufferers, families and the general public were cooperative and enthusiastic in listening and paying attention to the topics given. Participants actively participated during the discussion session where many asked questions related to the topic of the extension. When an evaluation was carried out by asking questions related to the topic presented, almost 90% of participants were able to answer well and indicated that the patient's knowledge had increased. This is in line with the results of research conducted by Haryono (2018) which states that there is a significant effect of health education on increasing knowledge about diet, current blood sugar levels, increasing dietary compliance of DM patients (p = 0.000) (Haryono et al., 2018). It is hoped that good knowledge will improve the quality of life of DM patients. Sidabutar's research (2020) states that respondents who have good knowledge will form a good attitude towards health behavior and prevent the risk of complications (Sidabutar, 2020).

#### CONCLUSIONS And RECOMMENDATIONS

Health education related to proper diet for DM patients and their families can improve the health status and quality of life of type 2 DM patients. To health cadres to always be consistent and continue to improve health programs and be a companion for the healthy life of the community.

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## **ATTACHMENT**



Figure 1. Health Education





Figure 3. Community Service Team