

IMPROVING SELF-EFFICACY DIET COMPLIANCE IN DIABETES MELLITUS PATIENTS THROUGH HEALTH EDUCATION

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ABSTRACT

Diabetes Mellitus (DM) has many complications but can be managed so that patients avoid various complications. One strategy is to manage the diet. Compliance in running a diabetes diet requires an awareness and intention (Self efficacy) from DM patients. The results of the study by Melda et al (2021) at Ulin Hospital Banjarmasin found that many DM patients who did not comply with the recommended diet program had low self-efficacy. Therefore, health promotion in DM patients needs to be done to convey correct information regarding the importance of dietary compliance. The patient said he was resigned and could not comply with the recommended dietary pattern. Through community service programs, We feel compelled to help provide solutions to patient non-compliance in carrying out the recommended diet program for DM patients at Ulin Hospital Banjarmasin. The form of this community service activity is in the form of health education about the diet of DM patients. Participants in this activity are DM patients who are outpatient at Ulin Hospital Banjarmasin as many as 15 people. The patient's dietary adherence self-efficacy was measured by the Indonesian version of The Diet Self Efficacy Scale questionnaire. Before health education was conducted, the average number of patients' answers was 19 (scale: 0-44), but after health education it increased to 36 (scale: 0-44). Participants in this activity are DM patients who are outpatient at Ulin Hospital Banjarmasin as many as 15 people. The patient's dietary adherence self-efficacy was measured by the Indonesian version of The Diet Self Efficacy Scale questionnaire. Before health education was conducted, the average number of patients' answers was 19 (scale: 0-44), but after health education it increased to 36 (scale: 0-44). Participants in this activity are DM patients who are outpatient at Ulin Hospital Banjarmasin as many as 15 people. The patient's dietary adherence self-efficacy was measured by the Indonesian version of The Diet Self Efficacy Scale questionnaire. Before health education was conducted, the average number of patients' answers was 19 (scale: 0-44), but after health education it increased to 36 (scale: 0-44).

Keywords: diabetes mellitus; dietary compliance; health education; self-efficacy

INTRODUCTION

Diabetes mellitus is a chronic disease that is very common in the world. The International Diabetes Federation (IDF) reports that 537 million adults worldwide have diabetes in 2021, with a projected increase of 45% or the equivalent of 783 million patients by 2045 (IDF, 2022). Currently, Indonesia has diabetes alert status because it ranks 5th out of 10 countries with the highest number of people with diabetes (IDF, 2022). According to 2013 and 2018 Riskesdas data, the prevalence of diabetes in Indonesia tends to increase from 6.9% to 8.5% (KemenkesRI, 2019).

The increasing prevalence of diabetes mellitus (DM) requires regular control and monitoring because it has an impact on increasing various complications such as eye, heart, kidney and brain diseases (PBPerkeni, 2021). The Ministry of Health also states that diabetes is the main cause of amputation (not due to trauma), disability and even death

(PusdatinKemkesRI, 2019). The IDF estimates that by 2021, 6.7 million people will die from diabetes (IDF, 2022).

Although DM has many complications, it can be managed so that patients can avoid various complications. People with diabetes must pay attention to the food they eat every day to maintain blood sugar levels in the normal range to prevent complications and reduce disability and achieve a better quality of life. One strategy that can be done is to manage the diet (Has et al., 2019; PPBerkeni, 2021). Diet management in DM patients is setting the schedule, amount and type of food eaten every day to help improve eating habits and control metabolism so that it can control sugar levels (Tjokroprawiro, 2011).

Compliance is the most important factor in running a diet program (Izza, 2019). However, in reality only

50% of people living with diabetes adhere to diabetes management including diet management (IDF, 2017). Non-compliance is one of the obstacles to achieving the treatment goals of Diabetes Mellitus (DM) patients (Haryono et al., 2018). Adherence to a diabetic diet requires awareness and intention (self-efficacy) from people with diabetes. Self efficacy is the ability of individuals or people with diabetes mellitus to make the right decisions including planning, monitoring and implementing care during their lifetime.

The patient's self-efficacy in adhering to the diet can be increased by inculcating the value and importance of self-care and diabetes management by health professionals. It has been proven that information and education provided in the first weeks and months after diagnosis has a significant relationship with the patient's condition. Appropriate information has been shown to be associated with increased compliance. Therefore, the right information and delivered efficiently after being adapted to the local culture by health professionals is the key to empowering DM patients (IDF, 2017).

Health promotion in DM patients needs to be done to convey correct information regarding the importance of dietary compliance. The results of the study by Pardede et al., (2022) at the Ulin Hospital Banjarmasin found that many DM patients who did not comply with the recommended diet program had low self-efficacy. The patient said he was resigned and could not comply with the recommended dietary pattern. Through the community service program, we feel compelled to help provide solutions to patient non-compliance in carrying out the recommended diet program for DM patients at Ulin Hospital Banjarmasin. The form of this community service activity is in the form of health education about the diet of DM patients. The target in this activity is DM patients who are outpatients at Ulin Hospital Banjarmasin.

METHOD

The method used to convey material about the diet of DM patients in this activity is the lecture method. The lecture method was chosen because it can make it easier for the patient to understand the content of the material presented by the resource person as important health information so that after the lecture, it is hoped that the patient can understand, remember, and at the same time increase the patient's self-efficacy so that patient compliance in carrying out the diet program also increases.

The target of health education and promotion regarding diet education for DM patients is DM patients who are outpatients at the Polyclinic of Ulin Hospital Banjarmasin. This activity was carried out

at the Polyclinic of Ulin Hospital Banjarmasin. Information delivery using audiovisual media and leaflets distributed to patients. Health promotion through health education is expected to motivate DM patients to improve adherence to a diet program. The stages in the implementation of this health promotion activity include the preparation stage (preparing materials, leaflets, questionnaires and tools and equipment for activities such as laptops, projectors and loudspeakers), the implementation stage (opening, distributing questionnaires, giving materials and closings, distributing questionnaires), and the evaluation stage (process evaluation and result evaluation). In this activity, evaluation of the results was carried out using a questionnaire. The questionnaire used is the Indonesian version of The Diet Self Efficacy Scale questionnaire which consists of 11 questions with answer choices Not at all confident (score 0), Slightly confident (score 1), Self-confident (score 2), Confident (score 2) 3), and Very confident (score 4) provided that the higher the score, the better the self-efficacy.

RESULTS AND DISCUSSION

The results of community service activities obtained 15 patients who took part in the activities, which can be seen in table 1.

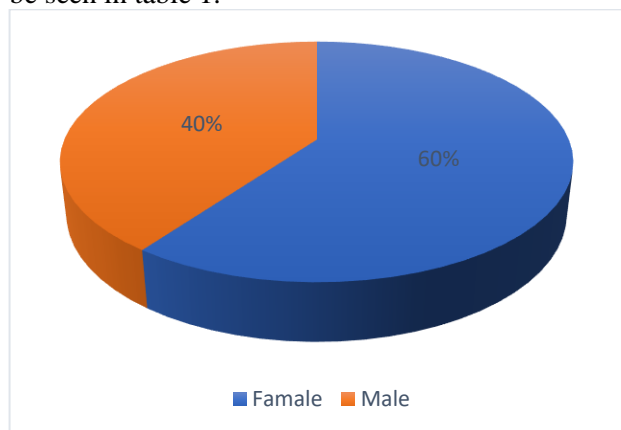


Figure 1. Characteristics of Activity Participants by Gender

During the activity, the participantsthe activity seemed enthusiastic and serious about listening to the material presented by the team. During the question and answer session, participants enthusiastically asked about things they did not understand. Many participants asked about the amount and type of food they were allowed to eat. To evaluate, before and after the activity, the team asked 11 questions related to diet adherence self-efficacy. The results of the evaluation can be seen in Figure 2.

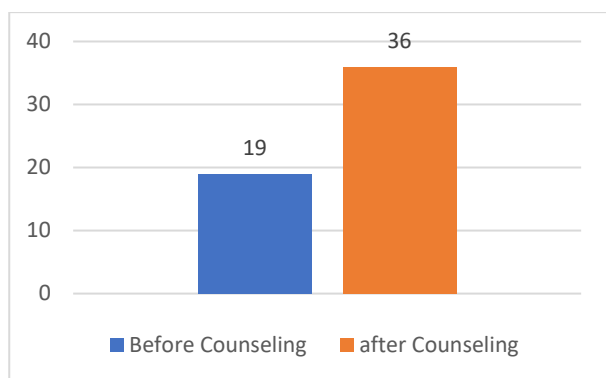


Figure 2. Average correct answers before and after counseling (scale: 0-44)

The self-efficacy of DM patients before being given counseling on average was still low. This shows that DM patients have low confidence to adhere to the recommended diet program. Self-efficacy of good dietary compliance requires good knowledge and understanding of the diet of diabetic patients. Knowledge and understanding of the patient's diet is needed as a basis for increasing self-efficacy. Knowledge is the result of human sensing, or the result of someone knowing about objects through their senses (eyes, nose, ears, etc.) (Notoatmodjo, 2014) and knowledge is the most important domain in forming one's beliefs to behave.

After being given counseling, the participants' knowledge and understanding of the activity increased marked by an increase in the average answers of the participants. This shows that the information about the DM diet was well received by the participants. There is also a method to convey health information through lectures. Lecture is the most natural way to communicate with other people, namely by speaking directly so that listeners can easily understand the information conveyed.

The first stage before a person is obedient is belief in the therapy he will receive. Individuals must believe in their ability to perform therapy, diagnosis, accuracy of therapy, and believe that the therapy carried out brings benefits to the healing process. When a person already has confidence in the treatment regimen he receives, it is easier for health workers to provide care instructions effectively in therapy.

The beliefs that have been formed will make patients motivated to find out more about therapy or treatment regimens that support their health. Patients will usually be more active in finding out health information to support them to act on the information correctly and appropriately. Correct information about the treatment regimen directly affects the effectiveness of the action. Good knowledge of when and how to carry out a therapy will help a person

develop critical guidelines and remind them to always adhere to them. So, if the patient has confidence (self efficacy) that by managing the DM diet, he will be able to control the condition to remain stable, and feel he has the ability to follow the DM diet program.

This community service activity aims to increase the self-efficacy of diabetes mellitus patients to comply with the diet program. Increased knowledge and understanding of diet along with increasing self-efficacy of diabetes mellitus patients to comply with the diet program. By increasing self-efficacy, it will increase the dietary compliance of diabetic patients.

CONCLUSION

Community service has been carried out, namely health promotion activities with health counseling about the diet of DM patients to increase self-efficacy in order to increase the compliance of DM patients in undergoing a diet program. This activity was attended by 15 patients and their families. Based on the evaluation, it was found that the average participants' answers increased from 19 before the extension to 36 (scale 0-44) after the counseling. With increased knowledge, it is expected that people with hypertension have high self-efficacy towards dietary compliance in order to reduce complications.

References

- Haryono, S., Suryati, ES, & Maryam, RS (2018). Health Education About Diet Against Diabetes Mellitus Patient Compliance. *Journal of Health Research*, 7(2), 91–96.
- Has, EMM, Amira, A., Tiyas, K., & Ferry, E. (2019). Ethnic Foods Diet Program Improve Self-efficacy and Diet Compliance Among Type 2 Diabetic Patients. *Journal of Ners*, 14(2), 155–160. <https://doi.org/http://dx.doi.org/10.20473/jn.v14i2.16642>
- Permatasari, KD, Ratnawati, D., & Anggraini, NV (2020). AND WARM WATER SOAP ON FEET SENSITIVITY IN THE ELDERLY WITH. 5(2), 16–25.
- IDF. (2017, August 27). IDF Europe Symposium at EASD: Achieving improved compliance to diabetes care: the common task for care providers, health systems and people with diabetes. <https://idf.org/our-network/regions-members/europe/europe-news/54-10sep-2017-idf-europe-symposium-at-easd.html>
- IDF. (2022). IDF Diabetes Atlas 2021 . <https://diabetesatlas.org/atlas/tenth-edition/>
- Izza, EL (2019). Compliance with Type-2 Diabetes Mellitus Patients Undergoing Diet Therapy Judging From Theory Of Planned Behavior [Airlangga University].<https://repository.unair.ac.id/84169/4>

TKP.11-19Izz k.pdf

- Ministry of Health RI. (2019). Main results of RISKESDAS 2018. In Agency for Health Research and Development, Ministry of Health, Republic of Indonesia. <https://www.litbang.kemkes.go.id/laporan-riiset-kesehatan-dasar-risikesdas/>
- Masoompour, M., Tirgari, B., & Ghazanfari, Z. (2017). The relationship between health literacy, self-efficacy, and self-care behaviors in diabetic patients. *Evidence Based Care*, 7(3), 17–25.
- Notoatmodjo, S. (2014). *Health Promotion & Behavioral Science*. Rineka Cipta.
- Pardede, JA, Simanjuntak, GV, Simamora, M., & Parapat, M. (2022). Self-Efficacy, SelfCompassion, and Dietary Compliance Of Diabetes Mellitus Patients. *Tour Health Journal*, 1(1), 14–24.
- PBPerkeni. (2021). Guidelines for the Management and Prevention of Type 2 Diabetes Mellitus in Indonesia 2021. In PB. Perkeni. PB. Perkeni. <https://pbperkeni.or.id/wp-content/uploads/2021/11/2210-21-Website-Guidelines-Management-and-Prevention-DMT2-Ebook.pdf>
- Indonesian Ministry of Health Center for Data and Information. (2019). World Diabetes Day 2018. <http://pusdatin.kemkes.go.id/>
- Tjokroprawiro, A. (2011). *A complete guide to diet for diabetics*. Main Library Gramedia.