

# DIABETES MELLITUS LIFESTYLE MANAGEMENT AS AN EFFORTS TO IMPROVE QUALITY OF LIFE FOR DIABETES MELLITUS PATIENTS

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## DIABETES MELLITUS LIFESTYLE MANAGEMENT AS AN EFFORTS TO IMPROVE QUALITY OF LIFE FOR DIABETES MELLITUS PATIENTS

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### ABSTRACT

Complications experienced by DM patients will affect the patient's quality of life. Efforts that can be done to maintain the quality of life, one of which is by lifestyle management. This training is expected to increase the knowledge and skills of health cadres in teaching lifestyle management to improve the quality of life of people with diabetes mellitus. The method used in this community service activity is to provide health counseling. This activity was carried out for one month and was attended by 15 cadres and 50 people with DM. Quality of life is measured by DQOL (Diabetes Quality of Life). After one month of service, it was found that 98% of the quality of life of people with DM increased (good). Lifestyle management can maintain the quality of life of people with DM through maintaining stable blood sugar levels.

Keywords: *Diabetes Mellitus; Lifestyle Management; Quality of Life*

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## INTRODUCTION

Diabetes mellitus (DM) will experience a change from self-efficacy and a tendency to change self-efficacy towards a low direction. Self-efficacy in diabetic patients is closely related to their ability to manage themselves in dealing with the disease they are experiencing which ultimately has an impact on blood sugar control and of course will reduce complications and in the end will improve the quality of life of diabetic patients in a better direction

The number of people with DM continues to grow, this has been predicted by the Diabetes Intervention Federation (IDF), which says that the number of people with DM in Indonesia will increase from 9.1 million in 2014 to 14.1 million in 2035 (PERKENI, 2015). Many changes in life experienced by people with diabetes, diet settings, activity patterns, blood sugar control, and others that must be done throughout life.

Based on the results of observations on residents of RW.05 Wonokromo Village, it was found that quite a lot of residents, especially the adult group, complained of frequent dizziness, blurred vision, numb hands, which are signs and symptoms of DM. So far, residents have only carried out daily activities without knowing about lifestyle management and physical exercise as an effort to improve quality of life. Posyandu activities have been carried out well, but focus on the elderly. So that the health status of the elderly is well controlled while in adulthood it is not controlled. This is also influenced by the lack of self-control or health control from health facilities regarding public health in the adult age group

The solution to the problems offered to solve the problems faced is by providing lifestyle management education which is expected to be applied in daily life and providing activity training so that it can improve the quality of life of people with diabetes. Of course, this activity must be carried out continuously through cadres.

The output target in this activity is the development of cadres and socialization to residents in order to increase knowledge in managing lifestyles in improving the quality of life.

## OBJECTIVES

### *General Purpose*

This training is expected to be able to improve the knowledge and skills of health cadres in teaching management lifestyle to the elderly to improve quality of life with diabetes mellitus.

### *Special Purpose*

After implementing this community service activity, it is hoped that the cadres are able to:

1. Increase knowledge of cadres about lifestyle management via offline health education.
2. Improve the skills of cadres in lifestyle management through the provision of leg exercises, 3J counseling, and stress management in the module guide for cadres.

## PLAN OF ACTION

### *Strategy Plan*

The method used in this community service activity is a participative educational approach on April until May 2022 Participants are elderly health cadres and community in RW 05 Kel. Wonokromo, Kec. Wonokromo, Surabaya as many as fifteen cadres.

### *Implementation*

The activity implementation stage is the main stage of the community service program. The targets of the activities at the implementation stage are Cadres and residents in RW.05 Wonokromo Village, especially residents who suffer from DM where in the implementation of the community service team will provide socialization to Cadres and residents by paying attention to health protocols at the RW.05 Wonokromo Village Office, activities will be divided into The 4 sessions with execution distribution are as follows:

1. Cadre Training. The core activity of this community service is providing education and demonstrations to Cadres related to improving the quality of life with lifestyle management
2. Counseling. The core activity of this community service is counseling or presentation of material on lifestyle management for residents, especially people with DM which aims to increase knowledge and understanding of improving the quality of life. Counseling or material presentation will be delivered by speakers implementing community service activities using the lecture, question and answer method and demonstration (direct practice).
3. Demonstration of Physical Exercise (Diabetic Foot Gymnastics). After the counseling is complete, the activity will be continued by seeing and practicing the foot exercises which are carried out directly by the residents with assistance from the community vice team.
4. Pre-Test and Post-Test. Pre-test is an activity to test the target's level of knowledge regarding the material to be

delivered, in this case is knowledge of diabetes management and measurement of quality of life. This activity is carried out before the presentation by the presenter. Test the level of knowledge using a questionnaire containing questions related to the material that will be given to residents and filled in according to the ability of the residents. Post-test is an activity to test the target's level of knowledge about the material that has been delivered by the presenter. This activity aims to determine the increase in people's knowledge from before listening to the counseling exposure to the knowledge after listening to the counseling presentation that has been delivered by the speaker.

After completing the implementation of the socialization service regarding "Lifestyle Management of Diabetes Mellitus as an Effort to Improve the Quality of Life for People with Diabetes Mellitus" with the target of cadres and residents, the final step of the activities of the community service program, in this stage an evaluation and preparation of activity reports will be carried out. The evaluation was designed by comparing the conditions of initial knowledge and awareness before the socialization intervention with the increase in knowledge and awareness after the implementation of the service. Measurement of knowledge before counseling aims to determine initial knowledge about diabetes management and measurement of quality of life. While the evaluation after the counseling by making activity reports aims as an accountability report for the activities that have been carried out.

Besides that, after the counseling and training, blood pressure checks and uric

acid tests will be held for free for community.

*Setting*

Community service activities involve the Head of the RW. 05 Wonokromo Village and its Cadres. The head of the RW participates to facilitate the place where the Trial is held, namely at the RW.05 Office and coordinates the Chair of the RT to convey invitations to its citizens. Meanwhile, health cadres participate when accompanying the service team to conduct blood pressure checks and provide education on efforts to improve quality of life with sustainable lifestyle management in inhabitant. The training was conducted in that place because there are facilities and infrastructure to support the activities, such as a large enough space, the availability of LCDs and laptops, and the location is easily accessible by cadres and community.

*Target*

The training participants are health cadres in RW 05 Kel. Wonokromo, Kec. Wonokromo, Surabaya as many as 15 cadres, and 50 community with DM.

**RESULTS AND DISCUSSION**

The following are the results of the knowledge of the cadres before and after being given education about diabetes mellitus lifestyle management

**Table 1.** Results of pre-test and post-test for the knowledge among cadres.

Knowledge	Pre test		Post test	
	n	%	n	%
Less	10	67	1	7
Enough	3	20	2	13
Good	2	13	12	80
<b>Total</b>	<b>15</b>	<b>100</b>	<b>15</b>	<b>100</b>

Based on table 1, it was found that the knowledge of cadres before being given education was 10 (67%) had low knowledge while after being given education 12 cadres (80%) had good knowledge.

**Table 2.** Results of pre-test and post-test for the knowledge among people with DM.

Knowledge	Pre test		Post test	
	n	%	n	%
Less	28	56	3	6
Enough	13	26	5	10
Good	9	18	42	84
<b>Total</b>	<b>50</b>	<b>100</b>	<b>50</b>	<b>100</b>

Based on table 2, it was found that the knowledge of of people with DM before being given education was 28 (56%) had low knowledge while after being given education 42 of people with DM (84%) had good knowledge.



**Figure 1.** Implementation diabetic foot exercise.



**Figure 2.** Check blood pressure, blood sugar, and quality of life.

Lecture and discussion method quite effective in educating lifestyle management to cadres and the community with DM. Two-way communication makes it easier for cadres and people with DM to accept the material presented. lifestyle management delivered in the form of diet management, activity (diabetic foot exercise), and stress management.

**Table 3.** Results of pre-test and post-test for quality of life among people with DM.

Quality of life	Pre test		Post test	
	n	%	n	%
Bad	39	78	1	2
Good	11	22	49	98
Total	50	100	50	100

Based on table 3, it was found that the quality of life of people with DM before being given an intervention had a low quality of life, namely 39 people (78%) while after being given counseling or intervention as many as 49 (98%) had a good quality of life.

Lifestyle management that can be done by people with DM include increasing physical activity and healthy eating patterns, namely by setting 3J, and stress management (Rohmawati & Setiawan, 2021). Physical activity is an initial effort to manage DM (Putri, 2016; Rondonuwu, Rompas, & Bataha, 2016). DM patients who perform regular physical activity can stabilize blood sugar and improve quality of life. Exercise done three times a week with a duration of 30 minutes, can increase the effectiveness of insulin for 24-72 hours. This happens because effective blood sugar control is due to physical activity with intensity (Putri, 2016). People with DM who do regular physical activity can stabilize blood sugar and improve quality of life (Rohmawati & Setiawan, 2021)

The next life style management is regulating diet, blood sugar instability DM sufferers are caused by not being able to regulate their diet (Susanti & Bistara, 2018). Manage food planning which includes meal schedule, type of food, and amount calories eaten, will have a positive impact, namely DM patients have good nutrition and able to maintain stable blood sugar levels (Setiyorini & Wulandari, 2017). Good lifestyle management and carried out consistently stabilize sugar levels blood, minimize complications and improve the quality of life of the sufferer.

## CONCLUSION

Lifestyle management training for health cadres and the community as a form of community empowerment efforts with DM so as to increase the knowledge and skills of health cadres and the community in implementing lifestyle management consisting of diet, activity patterns and stress management. Results from this community service is expected to optimize the role of cadres as movers health services. Lifestyle management can maintain the quality of life of people with DM through maintaining stable blood sugar levels.

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