

Community Health Promotion Program (PKMRS) Self Care Management Of Diabetes Mellitus At Rsi Jemursari Surabaya

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ARTICLE INFO

Keywords:

Diabetes Mellitus; DM; health promotion; self-care management

ABSTRACT

Diabetes mellitus (DM) is a chronic multisystem disease related to abnormal insulin production, impaired insulin utilization, or both. Prevention measures that can be taken to avoid DM include self-care management. This health promotion activity aims to educate the community, especially families affected by DM, about self-care management, with a total of 30 respondents. The health promotion method utilizes Power Point presentation s (PPT) and leaflets, with pre-tests and post-tests conducted to assess the respondents' level of understanding. The research results show a significant difference in the respondents' knowledge of self care management before and after receiving education. The conclusion of this study is that providing health promotion to the community has a positive impact on the respondents' knowledge and quality of life, as well as on other members of the community.

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1. INTRODUCTION

Diabetes mellitus (DM) is a chronic multisystem disease related to abnormal insulin production, impaired insulin utilization, or both [1] [2]. Diabetes mellitus is known as a silent killer because individuals often only realize they have the disease after complications arise [3] [4] [5]. Complications in individuals with DM can be caused by various factors, including individual characteristics such as age, gender, education level, occupation, medical history, and can also be influenced by management factors including diet, physical activity, medication therapy, and blood glucose monitoring [6]. Other causes of type 2 diabetes are unhealthy lifestyle, an imbalance in food regulation and physical inactivity. These factors are influenced by self-care behaviors. The factors affecting self-care behavior are the patient's own factors, which are: knowledge, attitude, motivation, family support, economy and self-efficacy [7].

The International Diabetes Federation (IDF) estimates that around 463 million (9.7%) adults aged 20-79 had diabetes in 2019, and this number is expected to grow to 700. million (10.9%) by 2045 [8]. Southeast Asian countries such as Indonesia, Malaysia, Thailand and Vietnam have climbed the rankings over the past two decades. Due to large population, China (88.5 million people with type 2 diabetes), India (65.9 million) and the United States (28.9 million) still hold the top position as the countries with the highest total number of people suffered from diabetes [7]. Indonesia is one of the top 10 countries in the world with the highest prevalence of diabetes, with 10.7 million adult diabetics in 2019 and expected to grow to 16.6 million by 2045 [8].

Glycemic control is important for the patient to reduce morbidity and mortality of Diabetes. According to a trial of diabetes control and complications, normalization of glycohemoglobin A1c (HbA1c < 7%) is associated with the prevention of diabetes complications such as neuropathy, retinopathy and kidney disease. For every 1% decrease in HbA1c, the risk of microvascular complications is reduced by 37%, death from diabetes by 21%, and myocardial infarction by 14%. A 1% decrease in HbA1c was associated with a 13% increase in total diabetes healthcare costs. There is

a relationship between BMI and HbA1c, patient with higher BMI tend to have higher HbA1c levels [9].

Self-care management is an essential tool for patient with diabetes to manage. Self-care management's purpose is to reach the goal by controlling blood sugar levels and reducing the complications. Diabetes self-care management involves a collaborative work between healthcare providers and patients with diabetes acquiring the knowledge and skills to modify behaviors that will help patients to manage diabetes. Self-care management diabetes focuses on healthy eating, physical activity or exercise, blood sugar monitoring, adherence to medication, problem-solving, and healthy coping mechanisms. Self-care management is associated with improved glycemic control, increased quality of life, and reduce the diabetes complications [9].

In order for individuals with diabetes mellitus to live longer and healthier lives, they require professional healthcare support and good self-care management [10]. Research by [11] cited in [12] indicates that complications in diabetes mellitus patients can be controlled or prevented through self-care management. Self-care management is crucial for individuals with diabetes mellitus as it can improve their health and well-being. A study by [13] showed that the quality of life for diabetes patients is highly dependent on their self-care management. Self-care practices remain an important aspect for diabetes management. The important itself is as much as important of the disease management that done by the patients themselves or their families support. Diabetes management is more complex and demanding because it is requiring a better comprehensive understanding of the disease, not only blood glucose monitoring [14]. This means that the quality of life will improve when self-care management is practiced effectively, and vice versa.

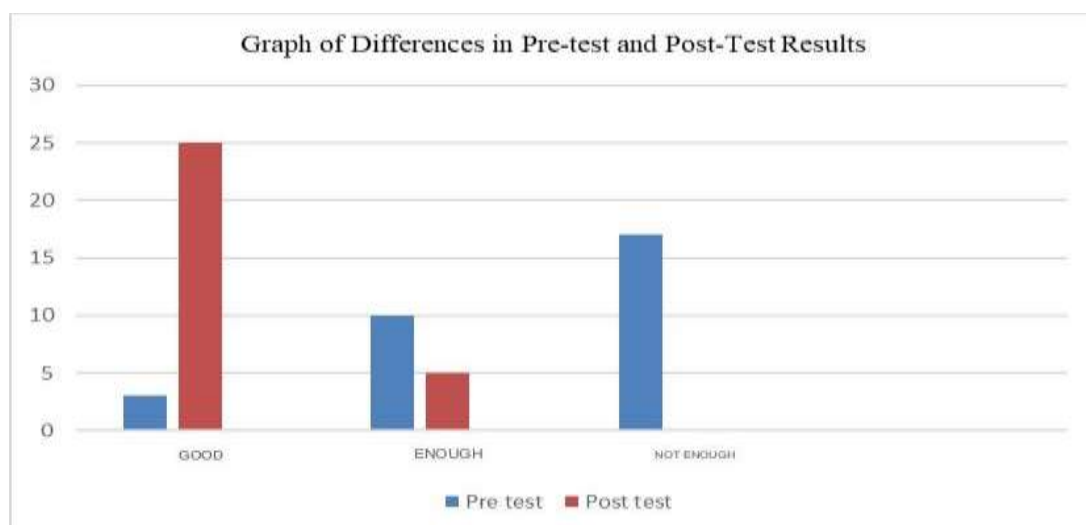
2. METHOD

The activity conducted as part of the PKMRS (*Penyuluhan Kesehatan Masyarakat Rumah Sakit*) is Health Education on "Self Care Management of Diabetes Mellitus." The participants in this activity are individuals with diabetes or their family members, with a total of 30 respondents. The activity involves active question and answer sessions with the respondents regarding self-care management for diabetes cases. The participants are then provided with educational materials, and evaluations are conducted to assess the extent of knowledge gained after the counseling session. Leaflets are used as the media for this activity.

3. RESULTS AND DISCUSSION

Knowledge Before the Counseling

The community's knowledge about self-care management of diabetes mellitus before the counseling session was very low, as evidenced by the unsatisfactory post-test scores. The data from the post-test and pre-test are presented in the graph below :



Knowledge After the Counseling

In the graph above, a significant increase in the community's knowledge about self-care management of diabetes mellitus can be observed. This is demonstrated by the good results, with 25 respondents (83%) out of a total of 30 achieving satisfactory scores.

Discussion

Based on the results above, there is a significant improvement in the level of knowledge about self-care management of diabetes mellitus among the community members. Health education is highly necessary in the present time due to the increasingly unhealthy lifestyle. Providing education to the community enhances their understanding and knowledge, enabling them to adopt a healthy lifestyle to prevent diabetes mellitus. This is consistent with the study by [15], which concludes that the self-care management of diabetes mellitus in young adults needs to be further improved in daily life. It is hoped that community nurses will enhance the provision of health promotion on self-care management for individuals with diabetes mellitus.

Butayeva et al (2023) said that nurse-directed interventions can provide information and support effectively for the patients and their families, which is essential to enable patients to accept new behaviors towards self-care management. Health promotion interventions lead to increase diabetes knowledge when delivered by community workers such as nurses compared with other health care providers. This fact is consistent with the results of a recent systematic review showing that health promotion interventions are positively correlated with the increased of knowledge and also controlling the glycemic level. This could be explained by the fact that nurses tend to be able to understand the circumstances, linguistic, and socioeconomic backgrounds with patients in order to provide interventions [9]. A study by Ramadhani et al (2019) shown that the more effective the self-care, the lower the HbA1c and the fasting blood glucose. This result also in line with the previous study which the patients have controlled the blood glucose, they did good in managing the glucose, diet, and exercise than the patients with lack of self-care management [16].

According to the previous study, intervention of health promotion had an impact on self-efficacy, knowledge, food intake, physical activity, and health literacy. People with diabetes can engage in and maintain lifestyle modifications that have been shown to enhance health outcomes with the help of diabetes self-management education, which is a critical component of this process. The process of fostering the skills, mindsets, and knowledge required for self-management especially for the patient with diabetes. Additionally, this self-management have a significant impact on how individuals with diabetes mellitus conduct self-care [17]. This finding also strengthen by the American Diabetes Association statement that the better the glycemic control, the lower the risk of microvascular and macrovascular consequences from diabetes. Therefore, self-management is a key element of diabetes treatment according to their guidelines [18].

The increase of knowledge of the participant in this study also in line with another study in Greece, a web-based health promotion program for diabetes and obesity. The intervention group has higher significant knowledge after the health promotion intervention. In addition, the intervention group also has better attitude towards obesity, decreased anxiety, improved in physical health and level of independence, also the psychological health compared to the control group [19].

4. CONCLUSION

Education on self-care management for patients with diabetes mellitus (DM) is highly necessary for today's society, which often seems indifferent to their own health. This way, the community will enhance the quality of their lives, whether they have diabetes or not.

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