

## Self-Management Education to improve self-efficacy in Diabetes Millitus Patients Type II

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### ABSTRACT

Riskesdas 2018 data records that every year there is an increase in people with Diabetes Mellitus in Indonesia. Of the 35 provinces in Indonesia, Gorontalo Province ranks 7th in the number of people with Diabetes Mellitus with a prevalence that increased from 1.3% in 2013 to 2.4% in 2018 Indonesia ranks 6th out of ten countries with the highest number of diabetes patients. , which is 10.3 million patients per year 2017 and is expected to increase to 16.7 million patients per year 2045. Good diabetes management is expected to minimize the incidence of various microvascular and macrovascular complications. Therefore, someone diagnosed with DM must carry out self-management so that it can reduce the risk of complications. Several factors that influence the implementation of self-management in DM patients, one of which is self-efficacy. The number of cases of Diabetes Mellitus in the working area of the Kabila Bone Bolango Health Center was recorded at 120 cases. II. The Methods: This community service uses 30 people with diabetes mellitus who are registered in the prolans who are in the working area of the Kabila Health Center. Activities include measuring blood sugar, body weight, pre-test and post-test of self-efficacy using a questionnaire adopted from the Management Self Efficacy Scale and intervention by providing education on intervention therapy based on the 4 pillars of diabetes management. This activity will be held in September-November 2021. The Results: Diabetes mellitus self-management education increased the self-efficacy of patients with sufficient categorical scores by 50% and good at 50% pretest and became sufficient 26% and good 74% and decreased the average blood sugar score for 3 stages.

**Keywords:** self efficacy, self management, diabetes Millitus

### INTRODUCTION

Riskesdas 2018 records that every year there is an increase in Diabetes Mellitus sufferers in Indonesia. Of the 35 provinces in Indonesia, Gorontalo Province ranks 7th in the number of people with Diabetes Mellitus with a prevalence that increased from 1.3% in 2013 to 2.4% in 2018 Indonesia ranks 6th out of ten countries with the highest number of diabetes patients. , which is 10.3 million patients per year 2017 and is expected to increase to 16.7 million patients per year 2045 (Kusuma and Hidayati 2013)(Puspitasari, 2020). Diabetes sufferers experience disturbances in the metabolism of sugar distribution by the body so that the body cannot which results in excess glucose in the blood and becomes toxic in the body.

(Astuti 2014)Astuti (2014) suggested that the goal of diabetes mellitus treatment is to keep blood sugar levels stable. Some of the ways that can be used include maintaining weight, adjusting your diet, going on a regular diet, exercising and injecting insulin. Insulin injection is more recommended for people with type I diabetes mellitus, while diet, weight control and exercise are more prominent in the management of type II diabetes mellitus. Good diabetes management is expected to minimize the emergence of various microvascular and macrovascular complications (American Diabetes Association (ADA), 2014). Therefore, a person diagnosed with DM must carry out self-management so as to reduce the risk of complications. Several factors influence the implementation of self-management in One of the DM patients is self-efficacy.

Lee et al (2019) the research found that individuals with high levels of self-efficacy have a positive relationship with participation in diabetes self-management behavior, although it does not occur simultaneously in all domains of self-management so that the discussion of self-efficacy in self-management of diabetic patients needs to be carried out because it is one of the nursing

actions Location of the Puskesmas Kabila is 2.5 Km from the Gorontalo Health Polytechnic. The Program of Puskesmas Kabila is in the form of Health promotion, Environmental Health, Disease Eradication Prevention, Family and Reproductive Health, Community Nutrition Improvement, Disease Healing and Health Services and non-communicable disease services. One of the most common non-communicable diseases at the Puskesmas Kabila is Diabetes, so far there are 120 diabetics who routinely check at the Puskesmas Kabila and 30 people register as prolanis members.

The results of an interview with one patient said that he did not regularly go on a diet because he was still confused about the right diet method for him. Based on the background of the problem, it is considered necessary to carry out community service by involving diabetes patients in the work area of the Kabila Bone Bolango Health Center. The purpose of this activity is. The Purpose this event to Improving self-efficacy of and Improving the health status of people with Diabetes Mellitus in the Puskesmas Kabila working area.

### **METHOD**

This stage begins with measuring sugar (GDS) and weighing the participants' body weight then giving a pre-test and post-test using a self-efficacy questionnaire (DMSES) to measure self-efficacy in patients with type II diabetes mellitus. This community service activity is in the form of diabetes mellitus self-management education by the team in 1 meeting with a time of 2.5 hours packaged in a lecture and question and answer method about diabetes mellitus self-management with the theme of 4 pillars of diabetes mellitus management which includes education, nutritional therapy, activities physical activity, anti-hyperglycemic drugs for diabetes mellitus, days for people with diabetes mellitus, stress management, demonstration of leg exercises.

This activity was then carried out by the participants independently in their respective places with the help of the diabetes mellitus self-management education module. The target in this activity is 30 diabetes mellitus patients who become prolanis participants at the Puskesmas Kabila. The media used in this activity were a diabetes mellitus self-management education module, 2 sets of blood sugar checkers, materials for foot exercises, a questionnaire for measuring participant characteristics and a self-efficacy questionnaire.

### **RESULT**

Participants in this activity are diabetics and registered in the Prolanis program at the Kabila Health Center, totaling 30 people with an age range of 20-40 years as much as 26%, 41-60 years as much as 50%, 61-80 years as much as 24%. The gender of the participants was dominated by women as much as 60%. The length of time suffering from diabetes is 5-10 years as much as 46%, 10 years as much as 33% and 1-5 years as much as 20%. The increase in self-efficacy scores before and after being given self-management intervention, namely the results during the pretest in the good category by 50% and after the posttest by 74%. the difference in the average blood sugar score when the participants (GDS) pre and post giving self-management education there is a difference of 3.2.

### **DISCUSSION**

The results of the analysis showed that there was an increase in participants' self-efficacy before and after being given self-management education which was measured for 8 weeks. Self-efficacy as a strategy to increase individual confidence in the ability to change. The results of this community service are in line with (Gultom and Indrawati 2020) about self-management education in controlling sugar levels of diabetics at the Pancur Batu Health Center. there is an increase in self-efficacy of diabetes patients after being given a self-management intervention for 6 weeks. This shows that self-management education has an effect on the self-efficacy of type II diabetes patients even though the value is still relatively small, only reaching 1.21% of the expected prepost blood sugar level.

This can be caused by several factors, including the pre and post evaluation time of only 8 weeks, the possibility that participants' understanding is not the same regarding self-

management education and lack of motivation. Several studies have shown that motivation has a very important role in supporting the improvement of self-efficacy in diabetes patients, such as Budiyan and Martaniah (2011) found 3 supporting factors for increasing self-efficacy in diabetes patients, namely family support, work and education. The Research of Katuuk and Kallo (2019) in Manado, which looked at the relationship between motivation and self-efficacy in 34 type II diabetes patients, found a relationship between self-motivation and self-efficacy in type 2 diabetes patients.

### CONCLUSIONS AND RECOMMENDATIONS

From the results of community service, it can be concluded that diabetes mellitus self-management education can increase self-efficacy, decrease blood sugar levels and improve quality of life. Suggestion. To The Puskesmas expected For the next community service implementery take the same theme, it is hoped that it will increase the amount of special implementation time for pre and post tests. The next expected using more up-to-date educational methods and for the Puskesmas to be able to disseminate more widely to the community regarding self-management education and be able to include it in the prolanis program.

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