Influence of Diabetes Self Management Training Independence of Patients Diabetes Mellitus Type II

Susiwati
Jurusan Analis Kesehatan
Politeknik Kesehatan
Kementrian Kesehatan Bengkulu
Bengkulu Indonesia
susi7925@yahoo.com

Ida Samidah
Jurusan Analis Kesehatan
Politeknik Kesehatan
Kementrian Kesehatan Bengkulu
Bengkulu Indonesia
idasamidah@gmail.com

Jon Farizal
JurusanAnaliskesehatan
Politeknik Kesehatan
Kementrian KesehatanBengkulu
Bengkulu Indonesia
jonfarizal77@gmail.com

Abstract-**Diabetes Mellitus if not managed properly, can cause complications in all organs of the body, from head to foot, in all places where the high glucose levels are flowing. The aim of the research to determine the effect of diabetes self-management training (DSMT) The ability of the patient to perform self-examinations independently, adjusting the diet, regulating activity patterns, physical and psychological dimension, the behavior of patients to foot care in Diabetes Mellitus Type 2 the Pukesmas Jalan Gedang Bengkulu. This research uses a quasi-experimental approach pretest and posttest only control group design.Results: There is a difference or effect of blood sugar tests, diet regulation, the ability to set the pattern of activity, ability perceptions of physical and psychological dimension, with standalone capability foot care after diabetes self-management training. Suggestion: As a contribution to the minds of officers in handling Diabetes Mellitus**

Keywords: Effects of diabetes self-management training

I. INTRODUCTION

Non-communicable diseases (NCDs) become the main cause of death globally. WHO data show that of the 57 million deaths that occurred in the world in 2008, as many as 36 million or nearly two-thirds are caused by non-communicable diseases Proportion cause of death of NCD in people aged less than 70 years, cardiovascular disease is the biggest cause (39%), followed by cancer (27%), whereas chronic respiratory diseases, gastrointestinal diseases, and other NCD together cause about 30% of deaths and 4% of deaths due to diabetes [3].

DM is a metabolic disorder that is genetically and clinically heterogeneous manifestations including in the form of loss of carbohydrate tolerance. (Diabetes mellitus Refers to a group of metabolic diseases that are characterized by hyperglycemia. In turn, hyperglycemia is the caused by the body's inability to produce or Effectively Utilize enough insulin, a hormone that the body uses to convert food into glucose. As a result of this defect, the level of glucose in the blood elevated Becomes-a condition commonly referred to as high blood sugar),.(The early symptoms of

diabetes develop Gradually and, as a result, Often go unnoticed until serious damage has already been done to the body. Later symptoms or complications of the disease include neuropathy leading to ulcers and amputations, retinopathy leading to blindness, nephropathy leading to renal disease, atherosclerotic cardiovascular disease, peripheral vascular disease, cerebrovascular disease, hypertension, Increased susceptibility to infections and prolonged recovery time, and lower extremity amputations.) Prediabetes and diabetes (hyperglycemia) stage is further divided between the supply of people who are diagnosed or undiagnosed. The diagnosis has a dynamic meaning because it is a prerequisite for the proper management and control of hyperglycemia and often accompanies a risk factor for hypertension and hyperlipidemia; and management or control at the right time can reduce the rate of onset of diabetes, growth, and death. (The prediabetic and diabetic (hyperglycemic) stages are further divided Among stocks of people Whose conditions are Diagnosed or undiagnosed. The diagnosis has dynamic significance Because it is a prerequisite for the proper management and control of hyperglycemia and the Often Accompanying risk factors of hypertension and hyperlipidemia; and such management or control.

Research by [1] mentions that after DSMT about meal planning, respondents became to know the type of food that should be consumed a lot and the food should be reduced. The application of the principle of DSMT educational approach can lead to better self-management capabilities that can improve dietary adherence behavior in patients with type 2 diabetes, which ultimately clients and families become self-sufficient in health care

Based on the results of the initial survey in Local Government Clinic in Gedang Street Bengkulu in 2015 on 10 patients with DM, where 7 of them new to experience risk diabetic ulcers and diabetic ulcers 3 people exposed. They also rarely perform blood sugar checks and perform regular exercise, suggesting that the nurse never gave DSMT to patients with Type 2 diabetes because of the lack of monitoring blood sugar, eating irregularly, lack of

patterns of activity, the physical dimensions of the psychological and the number of patients with diabetes mellitus Type 2, which controls at Local Government Clinic at Gedang Street.

Based on the description above and the conditions of researchers interested in conducting research with the title: "Influence of diabetes self-management training (DSMT) Toward Independence patient DM Type II Di Local Government Clinic at Gedang Street Bengkulu City 2016"

II. MATERIALS AND METHODS

This research uses a quasi-experimental approach to design a posttest-only control group design. The population in this study were all patients with type 2 diabetes who were in Local Government Clinic at Gedang Street Bengkulu from January to October 2015 as many as 194 people. Samples from this study are that patients with type 2 diabetes who were in Local Government Clinic at Gedang Street taken by simple random sampling are taking a random sample of respondents as a source of data. With a control sample of 66 people who do DSMT and 66 people who did not do DSMT criteria Diagnosed with type 2 diabetes mellitus, age 40-65 years old, secondary education, able to perform an independent activity, Have a good reading ability and domiciled at Local Government Clinic at Gedang Street and staying with family. This research has been carried out in 6 months from May 3 until the date of October10, 2016

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III. RESULTS

TABLE I.

Examination Blood Sugar	Mean	P	Mean	P
Treatment Group	7		5	
Control Group	8	329	7	0,020

Based on table 5.9 above differences in blood sugar checks and homogeneity in the treatment group and the control group before DSMT P = 0.329> α (0.05), while after DSMT with p = 0,020 <α (0.05). This means that there is a difference or DSMT influence on the blood sugar examination table. Based on 5.9 above differences in the behavior of respondents on blood sugar checks and homogeneity in the treatment group and the control group after DSMT P = 0.329> α (0.05), while after DSMT with a value of p = 0,020 <α (0.05). This means that there is a difference or DSMT effect on blood sugar testshomogeneity in the treatment group and the control group before DSMT P = 0.217> α (0.05), while after DSMT with p = 0.012 <α (0.05). This means that there is a difference or influence before and after DSMT to dietmeans that there is a

difference or before and after DSMT influence on the pattern of activity.

Dietary Habit	Pre		Post	
	Mean	P Value	Mean	P Value
Treatment Group	40,6		43,7	
Control Group	38,6	0,217	42,7	0,012

According to the table above 5:10 respondent differences in diets of

TABLE II.

Activity Patterns	Pre		Post	
	Mean	P	Mean	P
Treatment Groups	14,8	0,4	17,1	
Control Groups	14,7	54	16,7	0,026

According to the table above differences in the pattern of activity 5:11 respondents about homogeneity in the treatment group and the control group before DSMT P = 0.454> α (0.05), while after DSMT with p = 0.026 <α (0.05).

TABLE III.

Physical and Psychological dimensions	Pre		Post	
	Mean	P Value	Mean	P Vaue
Treatment Group	32		37	
Control Group	32	0,627	33	0,000

According to the table above 5:12 psychological dimensions of respondents in different patterns of homogeneity in the treatment group and the control group before DSMT P = 0.627 > α (0.05), while after DSMT with p = 0.026 < α (0.05). This means that there is a difference or influence before and after DSMT.

TABLE IV.

Chiropody	Pre		Post	
	Mean	P Value	Mean	P Value
Treatment Group	3		3	
Control Group	2	0,135	3	0,041

1. The ability of the patient or family DM before and after DSMT in Local Government Clinic at Gedang Street Bengkulu 2016.

The results showed in general more patients do not regularly perform blood sugar control it are many factors that lead to disordered patient examination and blood sugar control such as *internal locus of control* DM patients is low, then the level of awareness inattention to his health (to control blood sugar levels on a regular basis) will also decrease. Previous research showed 40% of patients paying less attention to their health caused by the level of locusof control internal low [2].

2. The ability to manage your diet DM patients before and after DSMT in Local Government Clinic Gedang Street Bengkulu 2016.

The recommended diet for people with diabetes is a balanced diet. Balanced in the proportion of the nutrients contained in whole food. There is no single food that contains all the nutrients. Therefore, people with diabetes need to consume foods that are diverse, containing energy substances, builders and regulators in the number and eating schedules accordingly. In general, these components are translated in the form of portions of the staple food, side dishes, and animal or vegetable side dishes, as well as vegetables and fruit. If you see the data in Table 2. Categories suit is that already meets these conditions while the category is not appropriate when the food component is incomplete to the above criteria.

3. The ability to manage activities in diabetic patients before and after DSMT in Local Government Clinic Gedang Street Bengkulu 2016.

Physical activity is any movement of the body caused by the activity of skeletal muscles resulting in energy expenditure. Physical activity consists of activities during work, sleep, and in his spare time. Everyone doing physical activity, or vary between individuals from one another depending on individual lifestyle and other factors such as gender, age, occupation, and others. Physical activity is strongly recommended for all individuals to maintain health. Physical activity is also key to the determination of the use of force and the basis for the equal force. Various types and amount of physical activity are indispensable for different health outcomes.

4. Perceptions of physical and psychological dimensions in diabetic patients before and after DSMT in Local Government Clinic Gedang Street Bengkulu 2016.

Physical dimension is a body that may impose conditions with a healthy body condition (Sarwono, 2010). Ie the physical dimension of daily activities, dependence on drugs and medical aid, energy, and fatigue, mobility, pain and discomfort, sleep and rest, as well as working capacity.

According to **Tarwoto and Martonah (2010)** with daily activities is an energy or circumstances to move to meet the needs of life where activity is affected by inadequate system innervation, muscles and bones or joints. Addiction medicine and medical assistance that is how big the tendency of individuals to use drugs or other medical assistance in performing daily activities. Energy and fatigue are the skill level possessed by individuals in performing daily activities. While mobility is a transfer rate that can be done by individuals in performing daily activities. Then the pain and discomfort illustrate how individuals perceived the feeling of disquiet to the things that cause people to feel pain.

5. The behavior of foot care in diabetic patients before and after DSMT in Local Government Clinic Gedang Street Bengkulu 2016.s

One of the basic theory for educating the patient is social learning theory. Social Cognitive theory, is also the basis of self-efficacy theory which is more comprehensive because it not only on the characteristics are given education but provide direction for educators to manage the physical and social environments that occur when education. According to Bandura in Passer and Smith (2004), there are four important determinants that can affect self-efficacy that experience, learn from observation, participation emotional and verbal approach. The experience of success and failure that has been passed on the step and the same situation is the first thing that is important in forming the confidence in one's ability. The second source of information is to learn from what is seen. If someone who has the same characteristics as us, then someone is passing through an important goal, we will also believe that if we do the same behavior then we will also be successful. The focus on this second point that is important is their role model. The third point is the verbal approach, in which the message is obtained from others that strengthen our ability, it affects our confidence. One strategy that can be used is a suggestion, advice, self-instruction. The fourth point is the participation of emotion, such as fear or fatigue that tends to lower self-efficacy. Modifying the threat or fear of something- to be able to use methods of relaxation.

RECOMMENDATIONS

Average independence of Type II diabetic patients in controlling blood in the treatment group and the control group before DSMT is not independent, while after DSMT average. On average a patient's ability in a set before the DSMT diet in the treatment group and the control group was irregular, whereas after DSMT patients' ability to regulate has

been a regular diet. On average a patient's ability to set the pattern of activity in the treatment group and the control group before DSMT do not do regularly, while after DSMT average patient into a regular pattern of activity. The average dimension of physical and psychological dimension in the treatment group and the control group before DSMT is not good, whereas after DSMT average demensi physical and psychological dimension to be good The average behavior of the patient and family of diabetic foot care in the control group and the treatment prior to DSMT do with help, while after DSMT is able to perform independently.

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