Hypoglycemic Education Of Hypoglycemia Events

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ABSTRACT

To prevent the complications of hypoglycemia in people with diabetes, good and proper health education can increase the awareness of people with diabetes to want to change behavior in undergoing treatment programs so that sugar levels can be controlled and prevent various acute complications, especially complications of hypoglycemia. Increased knowledge is the basic principle of overcoming hypoglycemia in patients with diabetes mellitus independently and intensively. Education and behavior have shown a reduced risk of hypoglycemia for patients with diabetes mellitus. The purpose of this study was to determine the effect of hypoglycemic education on the incidence of hypoglycemia.
This study used a Quasi Experiment design, the experimental design used was The Pretest-Posttest design without a control group. The technique used was total sampling. The sample used in this study was DM sufferers who came to Posyandu of elderly Balowerti village who had health problems with diabetes mellitus. Bivariate analysis was performed with a statistical test dependent sample t-test (paired t test.) The number of samples taken was Diabetes Mellitus patients who came to the posyandu of elderly balowerti, with a total of 20 respondents. The study was conducted in September 2019.
The statistical test results obtained p value of 0.048, which means p value is less than alpha (P <0.05) which means Ho is rejected, so it can be concluded that there are differences in blood sugar levels of patients with diabetes mellitus before education and after diabetes exercise posyandu of elderly balowerti village of Kediri

PRELIMINARY

Hypoglycemia is the most common acute complication of type 1 bêtes bet and can also occur in type 2 diabetes, which can be caused a decrease in blood glucose levels have serious complications.(1) Diabetes is controlled her blood sugar remains a priority in the treatment, blood sugar control will reduce the risk of hypoglycemia and reduced hospitalization of patients who will be impact on the cost of care.(1-3) Prevent, recognize hypoglycemia is more effective than cure, so people with diabetes to know how to prevent this from happening hypoglycemia and counseling or education is an effective way to do.(1,2)

Hypoglycemia is an emergency disease who need help immediately, because prolonged hypoglycemia can cause permanent brain damage, hypoglycemia can cause coma until death (Kedia, 2011).(4) Short-term risk of hypoglycemia include the dangerous situation that can arise when a person experiencing hypoglycemia, both at home and in the workplace (eg, driving, operating machinery). In addition, prolonged coma sometimes associated with transient neurological symptoms, such as paresis, seizures and encephalopathy. Potential long-term complications of severe hypoglycemia is mild intellectual impairment and permanent neurological squeal, such as hemiparesis and pentane dysfunction.

The latter rare and only reported in case studies. Recurrent hypoglycemia can impair an individual's ability to sense hypoglycemia sub-sequences(5-7)Diabetes and its complications become a very heavy burden on the health care system. A study showed that the burden of diabetes and its complications in terms of Disability Adjusted Life Years

(DALYs) is 306 440 years(2), research in the state of Iran stressed that the prevention of this disease and its complications are important(3)Some studies bring out that the majority of patients with diabetes mellitus did not have knowledge of hypoglycemia. Health care professionals have an important role in educating people with diabetes about hypoglycemia so hypoglycemic episodes and morbidity can be reduced or prevented.(3,6),

Many patients who experience hypoglycemia and not worry about it. important for health providers and patients to know the signs and symptoms of hypoglycemia and what to do, especially for patients who are at high risk of hypoglycemia.(6,8), And prolonged coma complications associated with transient neurological symptoms, such as paresis, seizures and ensefalopat . Ada a clear link between severe hypoglycemia and cognitive impairment, cognitive impairment People with a high risk of a hypoglycemic episode, Lowered cognitive performance associated with micro vascular complications or metabolic control the bad one .(1,2,5,9), Increased knowledge is the basic principles of prevention of hypoglycemia in patients with diabetes mellitus independently and intensively.(5) Education and behavior have shown reduced risk of hypoglycemia in patients with diabetes mellitus (9), Monitoring hypoglycemia is a key component of diabetes care and require proper education about the causes, prevention, and treatment.(1)

Diabetes Mellitus can minimize and prevented by administration of health counseling, because it would be very effective to prevent complications of Diabetes Mellitus. A good education and proper health can raise awareness of people with DM for changing behavior in undergoing treatment is given so that the sugar levels under control and prevent many complications, especially acute complications of hypoglycemia. DM patients who do not get health promotion have a four times higher risk of complications compared with DM patients who received health education(10)

RESEARCH METHODS

This study design using Quasi-Experimental, experimental design used is the Pretest-Posttest design without a control group, the experimental design is done with a pretest before treatment and post-test after being given treatment, and to determine the effect of diabetes education to changes in blood sugar levels in patients diabetes mellitus were given educational treatment. The design of this study there was no comparison group (control), but at least have made the first observation (pretest) that allows to test the changes that occurred after the experiment (program) (Notoatmodjo, 2010). The technique used is total sampling sample used in this study are patients with DM who come in Posyandu Elderly Balowerti village who have health problems of diabetes mellitus. Bivariate analysis conducted with statistical test dependent sample t-test (paired t test.) Or two different test to determine differences in the mean dependent blood sugar levels before and after the intervention in diabetes education. Statistical test for the whole analysis were analyzed by 95% significance level (alpha 0.05). validity. (Notoatmodjo, 2005). Statistical test for the whole analysis were analyzed by 95% significance level (alpha 0.05). validity. (Notoatmodjo, 2005). Statistical test for the whole analysis were analyzed by 95% significance level (alpha 0.05). validity. (Notoatmodjo, 2005).The population in this study are patients with diabetes mellitus who come to Posyandu Balowerti, selected samples in this study using total sampling technique. The number of samples taken is Diabetes Mellitus patients who come to Posyandu Elderly Balowerti, with the number of 20 respondents. The research was conducted in September 2019.

RESULTS AND DISCUSSION

Characteristics of the variables are presented in the following table:

Table 1.Distribusi Blood Sugar Levels When (in mg / dl) before the intervention and after intervention

variables	pre - posts	mean	median	Standard Deviation	Min-Max
Sugar level Blood	pre	214.03	198.00	310 833	160-255
	Post	178.03	197.00	29 571	129-233

The primary data source in 2019

From the table above illustrates that there is a decrease in blood sugar levels before and after the intervention. It can be seen from the average blood sugar level before the intervention amounted to 214.03 mg / dl while the average blood glucose level after intervention 178.03 mg / dl.

Hypothesis testing.

research hypothesis that differences in blood sugar levels before and after diabetes education to be seen how much the effect of diabetes education to changes in blood sugar levels, by analyzing the results of over 3 weeks and monitored blood sugar levels before the intervention by the first week to the third week after the intervention. This type of analysis used is dependent simple statistical test test (paired t-test). Statistical test for the whole analysis of the above analysis of the significance level of 95% (alpha of 0.05%), to analyze differences in blood sugar levels before and after the educational gymnastics.

The following will describe the value of P values to see how much influence diabetes education to decrease blood sugar levels before and after education conducted by researchers.

Analysis of Differences in blood sugar levels before and after give diabetes education to patients with diabetes mellitus.

September 2013 (n = 20)

Table 2. Blood sugar analysis

variables	pre-post	mean	SD	p Value	T	N
Blood Sugar Levels	pre intervention	214.03	30.833	0048	2,124	20
	Post intervention	178.03	29 571			
	Difference	16:00				

primary data 2019

Based on the table above the average blood sugar levels of pre-test before education at 214.03 with a standard deviation of 30.833, and the average blood sugar levels post-test with a standard deviation of 29 571 178.03. The data illustrate the difference in a patient's blood sugar levels before and after t diabetes education, and also shows the

influence of diabetes education to the patient's blood sugar level drops dm. It can be inferred from the average difference in blood sugar levels before and after the intervention that could be seen of the p value. From the test results obtained statistical p value 0048 which means p value less than alpha (P <0.05), which means that Ho is rejected,

Hypothesis testing

Relationship role of the family with the regulation of blood sugar levels in people with diabetes. The test results using a simple correlation test, by chi square shows (p = 0.005) so that Ho refused and Hi accepted meaning family roles has a significant connection to regulation of blood sugar levels in people with diabetes.

Discussion

Adequate education of patients and their relatives can help reduce the risk of severe hypoglycemic episodes. Patients may not understand the direct and basic information about recognizing and managing hypoglycemia. Even if the information is given, it can be easily overlooked and sometimes, the consequences are badly neglected. Physicians should remain alert to the potential risk of hypoglycemia in individual patients and should review the treatment of patients undergoing high risk.(6,8,11) Someone who has a higher education will have a broader knowledge and also allow someone to be able to control himself in troubleshooting faced, have high confidence, experienced, and have a precise estimate of how cover an event and easily understand what recommended by health workers (Notoatmodjo, 2007).

Appropriate diabetes education for patients with diabetes can be a very valuable tool for the prevention of hypoglycemia. But a key obstacle that is blocking a busy schedule and the density of health care providers, low education levels and the effectiveness of the waiter with diabetes mellitus, the busy work of some patients and a low socioeconomic level. Regardless of these obstacles, continuous education and regular, the patient's motivation and drive can not only improve patients' knowledge but also to reduce the gap between knowledge and practice.(5 to 7.12)

Relationship educational the Prevention of Chronic Complications of Diabetes Mellitus, the results showed respondents with higher education mostly good prevention and respondents with lower education prevention largely unfavorable. It shows the higher level of education to raise awareness for the prevention of chronic complications in patients with diabetes mellitus .This gives evidence educational level affect the healthy behaviors in preventing diabetes. Increase level of education will increase awareness of healthy living and pay attention to lifestyle and diet. In individuals who have low educational risk paying less attention to lifestyle and eating habits as well as what to do to prevent DM (Notoadmodjo, 2011). It also support by Falea research, et al (2014) study of factors affect the incidence and prevention research diabetes. The result prove p (0.00) <0 0.05 means there is a significant relationship between education and the prevention of chronic complications of type 2 diabetes mellitus in Puskesmas Purwosari Surakarta. Value odds ratio (OR) of 13.05 means that respondents with higher education (high school and above) have a good chance for the prevention of 13.05 greater than the respondent to low prove. The educational factors have a strong influence on the prevention of complications chronic diabetes mellitus. This was confirmed a few studies that show there is a significant relationship between the level of education and the incidence of diabetes. Research conducted Monginsidi (2014) shows the proportion of the population who have diabetes in

Indonesia are found mostly in people with a high school education (26%). Low and medium education is more protective than the higher educational backgrounds. Lower education have a risk 1.43 times higher than those of higher education (Nainggolan et al, 2013). The higher educationthe higher the person's ability to absorb information on the health and improve the prevention of diabetes and improve the detection of incident diabetes (Cai Le, 2011).

CONCLUSIONS AND SUGGESTIONS

Hypoglycemia is a complication which can be fatal acute for patients with DM. It is therefore necessary preventive measures such as by controlling blood sugar levels on a regular basis, the provision of preventive health education hypoglycemia.

Suggestion

Increase educational activities through counseling preventive health hypoglycemia community, as well as give support to patient.

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