http://heanoti.com/index.php/hn

RESEARCH ARTICLE

URL of this article: http://heanoti.com/index.php/hn/article/view/hn20125

Effectiveness of Counseling to Increase Knowledge and Lower Blood Sugar Levels of Diabetes Mellitus Patients in Tompotikka Sub-district

Harliani[1(CA)], Baharuddin Korja[2]

[1(CA)]Health Polytechnic of Ministry of Health at Makassar, Indonesia; harlianitdg@gmail.com (Corresponding Author)

[2]Health Polytechnic of Ministry of Health at Makassar, Indonesia

ABSTRACT

There has been a growing perception in the community that a person has diabetes mellitus because one of his parents suffers from the disease. This experimental study provided a counseling about diabetes mellitus with the aim of increasing public knowledge about diabetes mellitus. It was expected that increased knowledge will change the pattern of life for the better, so that blood sugar could be controlled. Before the treatment was done pre-test and blood glucose measurement, while after the treatment was done post-test and the measurement of blood sugar level again. From the results of pre-test it appears that public knowledge about DM was still low. Post-test results showed that people's knowledge about all factors related to diabetes mellitus has increased. Meanwhile, the time span about one month after the implementation of counseling had managed to lower blood sugar from most respondents.

Keywords: Diabetes mellitus, Blood sugar, Counseling, Knowledge

INTRODUCTION

Diabetes Mellitus is one of the health problems that tend to increase from year to year. In the world in 2014, the estimated 422 million adults were living with diabetes mellitus(1). Paul Zimmet, Director of the International Diabetes Institute (IDI) in Victoria, Australia predicted that diabetes would be the most powerful epidemic in human history. Diabetes that has been included in the list of "Asian Diseases". In 2003 it was estimated that 89 million Asian people had diabetes, most of them in Asia, namely India (32.7 million people), China (22.6 million people), Pakistan (8.8 million people), and Japan (7.1 million sufferers)(2).

It is estimated that in 2030 the prevalence of diabetes mellitus in Indonesia reaches 21.3 million people. The results of RISKESDAS (Basic Health Research) showed that the proportion of causes of death due to diabetes mellitus in the age group 45-55 years in urban areas ranked second and in rural areas ranked sixth. In general, about 80% of the prevalence of diabetes mellitus is Type II diabetes mellitus. This means that an unhealthy lifestyle becomes the trigger for diabetes mellitus(3).

The Health Profile of Makassar City shows that diabetes mellitus from year to year has increased. In 2013, diabetes mellitus ranks fourth of ten major diseases in Makassar City with 43,547 cases. Meanwhile, in 2014 this disease has increased with the number of patients ie 46,939 cases(4).

There has been a growing perception in the community that a person has diabetes mellitus because one of his parents suffers from the disease. In addition, if someone has an injury that is difficult to cure, then he was identified suffering from diabetes mellitus. People still do not understand that 80-90% of diabetes mellitus disease is Type II, which is triggered by lifestyle, especially diet as a risk factor, and not because of a derived phenotype. Due to this lack of knowledge, people tend not to avoid the risk factors of diabetes mellitus and do not play an active role to control blood sugar.

METHODS

This research was an experimental study. The subjects of the study were 40 people with diabetes mellitus in Tompotikka Sub-district. The treatment provided was a counseling about diabetes mellitus with group discussion with the community, with the aim of increasing public knowledge about diabetes mellitus that includes risk factors, signs and symptoms, prevention methods such as diet and exercise, as well as risk factors for

complications. It was expected that increased knowledge will change the pattern of life for the better, so that blood sugar could be controlled. Before the treatment was done pre-test and blood glucose measurement, while after the treatment was done post-test and the measurement of blood sugar level again. Data on knowledge and blood sugar levels collected in the pre-test and post-test phase were categorical, so they were presented in the form of frequency and percentage[5]. After that the data before and after treatment are compared.

RESULTS

The results showed that prior to counseling and group discussion, it was generally found that the proportion of respondents who had knowledge in good category was only 33%, with details: 1) knowledge about the cause of diabetes mellitus: the majority said that the cause of diabetes mellitus is heredity factor that is 30 person (75%) and the rest is lifestyle factor is 10 people (25%); 2) knowledge of the type of diabetes mellitus is wet diabetes ie 15 people (37%) in obese people and dry diabetes in skinny people; 3) wet diabetes at risk of injury that is difficult to cure and dry diabetes no risk of injury: 25 people (63%); 4) snack and canned drinks are not risk factors for diabetes mellitus: 25 people (62%); 5) knowledge of the early symptoms of diabetes mellitus are: do not know: 40 (100%), often thirsty, often hungry and frequent urination), weak and weight decreased: 11 (27%); 6) knowledge of the objectives of the treatment program is to hope to recover from this disease 25 (62%); 7) frequent complications resulting from diabetes mellitus are wounded: 8 (20%), do not know: 26 (65%), heart disease and hypertension: 16 (40%).

The results of blood glucose screening in the pre-counseling phase were: as many as 20 people had blood sugar levels exceeding normal. After the pre-test conducted counseling and group discussion with the theme "Know and Prevent Diabetes Mellitus".

Post-test results show that there has been an increase in knowledge to reach 85%. Meanwhile, within 4 weeks after the counseling and discussion group, 16 people (80%) experienced a decrease in blood sugar, while the remaining 4 people (20%) did not experience a decrease in blood sugar. The decrease in blood sugar is 5 to 20 mg / dL.

DISCUSSION

From the results of pre-test it appears that public knowledge about DM is still low. They tend to suggest that the cause of diabetes mellitus is a hereditary factor, whereas the reality in the field shows that 85% -90% of people with diabetes mellitus suffer from type II diabetes mellitus caused by poor lifestyle. This is why people tend to assume that he will get diabetes mellitus because one of his parents diabetes mellitus disease.

Public understanding of the type of diabetes mellitus in general is still wrong, which is associated with the term diabetes and dry diabetes. Wet diabetes can cause injury, while dry diabetes does not cause injury. Community knowledge about the type of eating that is at risk for the incidence of diabetes mellitus is also very low. Very few people know that snacks, sweet foods or drinks are a risk factor for this disease.

Post-test results show that people's knowledge about all factors related to diabetes mellitus has increased, both on the cause, type of diabetes mellitus, risk factors, early symptoms, treatment program objectives and complications of diabetes mellitus.

Meanwhile, the time span about one month after the implementation of counseling has managed to lower blood sugar from most respondents. This happens because people have run a better lifestyle according to what they have gained during the counseling and group discussions, especially in terms of avoiding risk factors for diabetes mellitus. Public awareness is needed to regulate healthy living pol in order to avoid risk factors. This is very important because most of the diabetes mellitus disease experienced by the community is classified in type II is caused by unhealthy lifestyle factors. It is recommended that people with diabetes mellitus are eager to lead a healthy lifestyle that is diet and exercise on a regular basis, and should not be dependent on medication. People who do not have diabetes mellitus are advised to prevent risk factors such as diet, exercise and avoid the occurrence of stress both physical and psychological.

CONCLUSION

Based on the results of the study could be concluded that the descriptive, counseling about diabetes mellitus had succeeded in increasing knowledge and lower blood sugar levels of people with diabetes mellitus in Tompotikka Sub-district.

REFERENCES

1. WHO. Global Report on Diabetes. Geneva: World Health organization; 2016.

2. Zimmet PZ. Diabetes and Its Drivers: The Largest Epidemic in Human History?. Clinical Diabetes and Endocrinology. 2017;3(1):1-8.
3. Kemenkes RI. Basic Health Research 2013. (Riset Kesehatan dasar 2013). Jakarta: Badan Penelitian dan Pengembangan Kesehatan, Kementerian Kesehatan Republik Indonesia; 2013.
4. Dinkes Kota Makassar. Health Profile of Makassar City (Profil Kesehatan Kota Makassar). Makassar: Dinas Kesehatan Kota Makassar; 2012.
5. Nugroho HSW. Descriptive Data Analysis for Categorical Data (Analisis Data Secara Deskriptif untuk Data Kategorik). Ponorogo: Forikes: 2014.
6. Nabyl RA. Healthy Living Guides: Preventing and Treating Diabetes Mellitus (Panduan Hidup Sehat: Mencegah dan Mengobati Diabetes Melitus). Yogyakarta: Aulia Publishing; 2012.