

The role of education on the management of healthy lifestyle control to avoid non-infectious disease and severe disease complication in The Village of Buluh Cina Hamparan Perak

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ABSTRACT

Hypertension and DM are non-infectious diseases that require proper and careful lifestyle management. These diseases not only cause complications of heart attack, heart failure and stroke, but in many cases often lead to other severe complications. It is necessary to increase awareness and determination to carry out proper management in management independently to avoid severe disease complications. A good understanding of prevention and self-management such as blood sugar and blood pressure control and the use of drugs in accordance with the doctor's recommendations are needed. To improve understanding of these diseases for prevention for those who have not suffered and self-management for those who have suffered, education is needed with the scope of things that need to be done for diabetics and also hypertension which many of our society still do not understand. This community service programme aims to provide education on the understanding of hypertension and type 2 DM in terms of management such as diet, daily activities and exercise, regular medication and avoiding stress. The target of this programme is the community in Buluh Cina village, Hamparan Perak sub-district. With this education, it is hoped that the local community can understand the management of a healthy lifestyle to avoid severe complications.

Keyword: non-infectious diseases, healthy lifestyle management, severe diseases..

ABSTRAK

Hipertensi dan DM merupakan penyakit non infeksi yang membutuhkan pengelolaan pola hidup yang tepat dan seksama. Penyakit ini tidak hanya menyebabkan komplikasi serangan jantung, gagal jantung dan stroke, tetapi dalam banyak kasus sering menimbulkan penyakit komplikasi berat lainnya. Perlu upaya meningkatkan kesadaran dan tekad untuk melakukan pengelolaan yang tepat dalam penatalaksanaan secara mandiri untuk terhindar komplikasi penyakit yang berat. Diperlukan pemahaman yang baik mengenai pencegahan maupun pengelolaan secara mandiri seperti kontrol gula darah dan tekanan darah serta penggunaan obat-obatan yang sesuai dengan anjuran dokter. Untuk meningkatkan pemahaman mengenai penyakit tersebut terhadap pencegahan bagi yang belum menderita dan penatalaksanaan secara mandiri bagi yang sudah menderita diperlukan edukasi dengan cakupan hal-hal yang perlu dilakukan terhadap penderita diabetes dan juga hipertensi yang masih banyak masyarakat kita kurang memahaminya. Program pengabdian masyarakat ini bertujuan untuk memberikan edukasi pemahaman mengenai penyakit hipertensi dan DM tipe 2 dalam hal penatalaksanaan seperti pada pengaturan pola makan, aktifitas sehari-hari dan olahraga, pengobatan yang teratur serta menghindari stress. Sasaran program ini adalah masyarakat di desa Buluh Cina Kecamatan Hamparan Perak. Dengan edukasi ini diharapkan masyarakat Daerah setempat dapat memahami pengelolaan pola hidup sehat untuk terhindar dari penyakit komplikasi yang berat.

Keyword: penyakit non infeksi, pengelolaan pola hidup sehat, penyakit berat..



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1. Introduction

Type 2 diabetes (T2D) and hypertension (HTN), which are non-infectious diseases and two major components of the global burden of disease, are commonly found to coexist. Both diseases confer a dramatically increased risk (2~4-fold) of cardiovascular disease, end-stage renal disease, and death, compared with adults who do not have diabetes and do not have hypertension [1]. Therefore, understanding the bidirectional relationship between type 2 diabetes and hypertension is of great public health importance in terms of disease prevention and management of complications. In 2016, non-communicable diseases (NCDs) accounted for 71 percent of deaths worldwide, killing 36 million people per year. About 80% of these deaths occur in middle- and low-income countries. 73% of deaths are currently caused by non-communicable diseases, 5% of which are due to heart and vascular disease, 12% by cancer, 6% by chronic respiratory disease, 6% by diabetes, and 15% by other NCDs [2].

Diabetes mellitus (DM) is a metabolic disorder characterized by hyperglycemia due to insulin deficiency, insulin resistance, or both. The chronic state of hyperglycemia from diabetes is associated with long-term damage, impaired function and failure of various organs, especially the eyes, kidneys, nerves, heart, and blood vessels [3]. Meanwhile, based on Basic Health Research (Riskesdas) data in 2018, the prevalence rate of hypertension was 34.1%, which increased significantly from 2013 with a percentage of 25.8%, the characteristics of the age group 75 and over had the highest prevalence rate with a percentage of 69.5% and the lowest in the age group 18-24 years, namely 13.2% [4]. Basic Health Research (Riskesdas) data in 2018 states the trend in the prevalence of hypertension based on the results of measurements in the population aged ≥ 18 years according to characteristics in Indonesia in 2018 [5].

The national prevalence of diabetes mellitus in Indonesia based on Riskesdas data (2018), reached 21.8% [6]. The proportion of the incidence of diabetes mellitus in Indonesia according to the characteristics of female gender is more dominant when compared to men, the presentation in women is 12.7% and men are 9.0% and based on the characteristics of the age group 55-64 years and 65-74 years is higher when compared to the early elderly aged 45-54 years, at the age of 45-54 years 14.4% of the incidence of diabetes mellitus and age 55-64 years and 65-74 years 19.6% of the incidence of diabetes mellitus [7].

Education is a process of learning activities for each individual or group whose purpose is to improve the quality of mindset, knowledge and develop the potential of each individual [8]. So that education functions as an effort to improve the knowledge, attitudes and motivation of cadres in controlling hypertension and diabetes mellitus [9]. Many people with hypertension and type 2 diabetes mellitus in the community in Buluhcina Hamparan Perak village and the need to increase understanding of structuring a healthy lifestyle in these sufferers make the Village head partner with the University of North Sumatra Community Service Institute to hold counseling in the form of education to the community.

2. Methods

This community service is carried out at Buluh Cina Hamparan Perak Village, North Sumatera together with several students as assistants. Before we carry out the community service we coordinate with person in charge in the village village head and administrative staffs to decide the time and the exact place where we can do the education then we prepare the education material such as posters containing things that we want to convey that we have studied and adopted from various articles and to do the medical examination (Figure 1, Figure 2 and Figure 3).



Figure 1. Providing education to the community about a healthy lifestyle.



Figure 2. Blood pressure examination.



Figure 3. Fasting Blood Sugar examination.

The solutions offered to us based on the results of the priority problems that often occur in the village are: 1) the community does not have the right knowledge regarding the understanding of healthy lifestyle management in preventing hypertension and type 2 diabetes mellitus, so the team carried out health education and socialization efforts regarding the understanding of hypertension and type 2 diabetes mellitus; 2) because diabetes mellitus and hypertension are diseases that must be controlled regularly, the community service team also conducted health checks such as blood pressure measurements and also simple laboratory tests such as measuring blood sugar, cholesterol, and uric acid levels. Furthermore, it was determined that in the current community service activities, 2 activities would be carried out, namely health counseling on the understanding and management of a healthy lifestyle in preventing hypertension and diabetes mellitus and health checks. The form of partner participation in this community service activity is by participating in community service activities, and preparing a location for implementing activities that can accommodate many people. The stages of activities carried out include: (1) coordination with the Village Head and Village Secretary regarding the strategy for implementing community service activities; (2) coordination with cadres in Buluh Cina village, Hamparan Perak (3) counseling/education and discussion about healthy lifestyles based on guidelines such as diet, activity and medication. The number of village residents who received health education and check-ups was 50 people.

3. Results and Discussion

This community service activity, carried out in two major stages, which are, preparation of educational materials that will be provided by poster regarding the composition and physical examination, namely blood pressure examination and simple laboratory examinations such as blood sugar, cholesterol and uric acid examinations. In the results of the education we provide, there are still many people who do not understand the importance of regular check-ups at the health center. We also found some people whose laboratory results such as Blood Sugar Level (BSL) and cholesterol are not normal, for these people we suggest checking at the nearest health center or providing referrals to health workers who work in the area, in order to get further health services. To be able to carry out health examinations such as blood pressure examinations and simple laboratory examination tools such as BSL, Cholesterol and uric acid examinations, we provide these examination tools that can be used by the local community, as shown in figure 4. physical examination, namely

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Figure 4. Provision of medical equipment.

This activity was carried out on August 3, 2024, starting at 8.00 WIB - 13.00 WIB, where before the service team conducted overall education to the community around Buluh Cina Hampan Perak village then continued with simple health and laboratory checks to avoid various severe complications. In the activities we carried out by providing education and physical examinations and also laboratory examinations, we found that there were around 5 people in the village who were diagnosed with diabetes and 2 people with hypertension who they previously did not know about and with the education provided, they increased their understanding to carry out routine checks if they had been diagnosed with hypertension and diabetes mellitus. After carrying out educational activities and health checks in the form of physical examinations and laboratory examinations, we gave the equipment to the village head which could then be used by the medical personnel in the village to be used by the village community who needed it. Figure 4.

The results of this activity show that partners gained knowledge about understanding healthy lifestyles in non-infectious diseases, namely type 2 diabetes mellitus and hypertension, in the community of Buluh Cina Hampan Perak village. This effort is carried out through health promotion activities such as the activities below which can improve public health and understanding of the importance of health check-up control both physical examination and laboratory examination as a control of the course or development of a disease.

The limitation of our activities is that we do not follow up on the developments of the results of our activities, but the activity partners expressed their gratitude for the activities organized by the Community Service Institute (LPPM) which were carried out in Buluh Cina Hampan Perak Village.

4. Conclusions

The conclusion of this Community Service activity is in an effort to understand the management of controlling a healthy lifestyle to avoid non-infectious diseases and severe disease complications in the form of education so that the Buluh Cina Hampan Perak village community changes its lifestyle in terms of regulating daily food diets or activities and always always controls health for people who have been diagnosed with hypertension or type 2 diabetes mellitus in the form of checking blood pressure or checking blood sugar levels to avoid severe disease complications. In the next time this Community service activities like this can be carried out in other areas, namely the Gebang area, Padang Langkat Village, Gebang District, Langkat Regency, North Sumatra.

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