

Early Detection of Non-Communicable Diseases Through Free Health Check-Ups in Kolam Village, Percut Sei Tuan District Percut Sei Tuan

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ABSTRACT

Non-communicable diseases (NCDs) are diseases that cannot be transmitted from one person to another and usually develop over a long period of time. One of the factors causing the development of non-communicable diseases is a lack of knowledge and awareness of the dangers of NCDs, which leads to people not undergoing health checks. This is also caused by people's reluctance to get checked until they feel sick. One way to prevent non-communicable diseases is to undergo regular health checks. Therefore, it is necessary to prevent NCD risk factors through health checks and health education.

This activity was then carried out using three methods, namely direct practice to check the health of participants, providing health education, and finally administering herbal medicine.

Overall, the results of the health examinations varied from normal, mild, moderate, to severe. It is hoped that with activities such as this, the community will become more aware of the importance of regular health tests for early detection of NCDs.

Keywords: Health Check-up, Non-Communicable Diseases

INTRODUCTION

The prevention of infectious diseases can be done through preventive, curative, and rehabilitative efforts. Preventive efforts are efforts to prevent diseases or other health problems. Curative efforts are efforts in treatment, and rehabilitative efforts are efforts in recovery (Surahman and Supardi, 2016). Health development is more focused on promotion and prevention, followed by improving access to health services for the community. Improving public health consists of efforts to prevent communicable and non-communicable diseases, by improving nutrition, the environment, behavior, and early awareness (Indonesian Ministry of Health, 2009).

To control NCD risk factors, Clean and Healthy Living Behaviors (PHBS) can be implemented, such as regular health check-ups, eliminating cigarette smoke, regular physical activity, a healthy balanced diet, adequate rest, and stress

management. Regular health check-ups, including NCD risk factor screening, can be carried out at Integrated Coaching Posts (Posbindu) for NCDs located in villages or sub-districts, as well as at Community Health Centers (Puskesmas). (Indonesian Ministry of Health, 2019).

Efforts to control NCDs are not only carried out by the Ministry of Health but also require support from the government, private sector, professional organizations, and the entire community. In reducing NCD cases, control programs in the form of early detection and treatment of diseases are certainly needed. However, the community feels lazy to undergo health check-ups.

This community service is part of the learning practice activities of nursing science students at the University of Haji Sumatera Utara in 2025. This community service aims to carry out early health detection efforts, particularly in terms of non-communicable disease control. Therefore, community service includes

health checks for blood sugar, cholesterol, uric acid, and blood pressure, as well as free treatment using natural herbal medicines in Kolam Village, Percut Sei Tuan District, Deli Serdang Regency in 2025.

MATERIALS AND METHOD

This community service program was carried out in Kolam Village, Percut Sei Tuan District, Deli Serdang Regency, North Sumatra Province. The target of this activity was the community of Kolam Village. The program was held on June 22, 2025. The team implementing this activity consisted of students from the Nursing Science Program, lecturers from the University of Haji Sumatera Utara, and village officials.

The stages of this community service activity include three stages, namely:

1) Registration Stage

In this stage, preparations for the venue are made, including registration and attendance forms for participants in the health check-up activity. The indicator of the achievement of this stage is the availability of a registration venue and attendance forms.

2) Initial Examination Stage

In this stage, the activity organizers measured blood pressure at table 1, followed by blood sugar and uric acid checks at table 2, and provided health education based on the results of the examinations. The indicators for the completion of this stage were the results of the KGD, uric acid, and blood pressure checks, as well as the community's understanding of the diseases they were suffering from.

3) Herbal Medicine Administration Stage

At this stage, the community is given herbal medicine according to their complaints, as well as consultation with the community. The indicator of the achievement of this stage is that the community obtains the right herbal medicine.

RESULTS AND DISCUSSION

The examination results were recorded by the team conducting the examination on the examination form. Of the 50 patients who underwent health examinations, the results varied, ranging from blood pressure checks, blood glucose level checks, and uric acid checks (Table 1).

Table 1. Characteristics of Blood Pressure and Laboratory Tests

Characteristics	Frequency	Percentage
Blood Pressure		
1. Normal	20	40
2. Low	15	30
3. High	15	30
Total	50	100
Blood sugar level		
1. Normal	30	60
2. Low	5	10
3. High	15	30
Total	50	100
Uric Acid Level		
1. Normal	25	50
2. Low	15	30
3. High	10	20
Total	50	100

Based on Table 1, the results show that from the blood pressure examination of 50 patients, it was found that on average they had normal blood pressure with a percentage value of 40%, while low and high blood pressure were both at a frequency of 30%. From the results of blood sugar level checks on 50 patients, it was found that on average they had normal blood sugar with a percentage value of 60% (), while high blood sugar was found in 30% of cases. From the results of uric acid level tests on 50 patients, it was found that on average they had normal uric acid levels with a percentage value of 50%, while low uric acid levels had a frequency of 30% and high uric acid levels had a frequency of 20%. The following is documentation of the community service activities that have been carried out.

Blood pressure examinations were conducted on 50 patients. There were 30 patients who had abnormal blood pressure

with a percentage value of 60%. Several risk factors that cannot be changed are: Age, Gender, Men have a higher risk of experiencing an increase in blood pressure than women (). After entering menopause, the prevalence of hypertension in women increases. After the age of 65, due to hormonal factors in women, the incidence of hypertension is higher than in men; Family history. Modifiable risk factors include: Smoking; Insufficient intake of fruits and vegetables; Excessive salt consumption; Overweight/obesity; Insufficient physical activity; Excessive alcohol consumption; Dyslipidemia; High-fat diet; Stress.

A persistent increase in blood pressure over a long period of time can cause damage to the kidneys (kidney failure), heart (coronary heart disease), and brain (causing stroke) if not treated early and with appropriate medication. Many hypertensive patients have uncontrolled blood pressure, and their numbers continue to rise. Therefore, the participation of all parties, including doctors from various fields specializing in hypertension, the government, the private sector, and the community, is necessary to control the risk factors for hypertension.

The results of the examination showed that 20 patients had abnormal blood glucose levels, representing 40% of the total. Meanwhile, 25 patients (50%) had abnormal uric acid levels. Factors affecting blood glucose levels in patients with diabetes mellitus include clinical factors such as duration of illness, complications, comorbidities, and blood glucose levels (GDS or GDP) (Table 2). Most type 2 diabetes patients experienced complications, totaling 69 people (81.2%). The most common complication in type 2 diabetes outpatients at Sukoharjo Regional General Hospital was hypertension (58.8%). In addition to complications, patients also had comorbidities, with 51 (60.0%) patients having comorbidities. Most respondents had uncontrolled blood sugar levels, totaling 53 people (62.4%),

due to treatment results, with patients having GDS \geq 200 mg/dl or GDP \geq 126 mg/dl. Patient characteristics included medication factors such as frequency of medication use, type of medication used, and multiple medication use. Most patients took medication more than once a day, namely 53 people (62.4%) (Yulianti & Anggraini, 2020).

Gout can be caused by an unhealthy lifestyle, lack of exercise, and frequent consumption of nuts and offal. Based on research, offal and nuts are foods that have high purine levels, which can cause high uric acid levels (Fransiska E.P.A, et al., 2013). The community service program carried out in Cirebon can be considered successful, as evidenced by the large number of people who underwent health checks. The community also stated that this type of health service should be carried out regularly so that the community can obtain health knowledge and services.

There is still a lack of public awareness regarding the importance of regular health check-ups to prevent disease. In fact, many people still do not know their blood type (Hardani, 2018). People tend not to visit health facilities when they are healthy. It is not uncommon for people to prefer using traditional medicine rather than seeing a doctor. As a result, early detection of NCDs based on health services is less effective. Mitigating NCD risk factors and community-based prevention are among the solutions that can be implemented to reduce the risk or mortality rate due to NCDs.

The community's enthusiasm for this activity was quite good, as seen from the number of participants who attended and the questions they asked. Basically, the community has a high level of curiosity about NCDs, but the media to channel this curiosity is still lacking. Participants said directly that this community service activity was indeed very necessary and, if necessary, could be carried out regularly. This is because the number of NCD cases tends to increase every year.

CONCLUSION

Conclusion The activity, which was attended by 50 patients and included health checks, health education, and the provision of herbal medicine, ran smoothly. With this community service activity, the community has begun to realize the

importance of regular health checks in order to receive early treatment for PTM. Suggestions It is hoped that future activities will include more health checks and involve several health professions.

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