GLUCOSE AND CHOLESTEROL SCREENING IN THE ELDERLY IN THE WORKING AREA OF THE SRIKUNCORO HEALTH CENTER, CENTRAL BENGKULU DISTRICT, 2024

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Abstract: *Health screening of the elderly is an important endeavor to improve quality of life and life expectancy. The rise of chronic diseases among the elderly is attracting public health attention due to the increasing proportion of the elderly population. Conditions such as hypertension, diabetes mellitus, stroke, cardiovascular disease, and cancer, are the leading causes of death worldwide. Periodic health check-ups are an attempt to reduce or control the severity of these chronic diseases in older people. Community-based health interventions are needed to raise awareness to increase the frequency of visits to health services, such as posyandu lansia. The purpose of this community service activity is to check glucose, cholesterol, and blood pressure in the elderly in the Srikuncoro Health Center Working Area. This activity was carried out in collaboration with the Medical Laboratory Technology Study Program, Department of Health Analysts, Poltekkes Kemenkes Bengkulu with the Central Bengkulu Regency Government, especially the Srikuncoro Health Center Working Area. Based on the results of IDF (2019) the number of people with Diabetes Mellitus (DM) in the world is still high, which is 467 million, while in Southeast Asia the prevalence of DM is 11.3%. The incidence rate in Indonesia is 10.7%. The incidence of DM in Bengkulu is 48%. This community service is carried out to screen the elderly community to check glucose, cholesterol, and blood pressure as an effort to prevent the occurrence of non-communicable diseases that are at risk in the elderly*

INTRODUCTION

The implementation of the community partnership program (PKM) is a community service activity carried out by related parties which includes two things, namely: (1) As a manifestation of the roles and responsibilities of higher education institutions in order to participate in educating the nation's life (2) As an implementation and dissemination to the community of various research findings / studies conducted by universities. On the other hand, community service is one of the main tasks and functions that must be carried out by lecturers, as functional personnel in higher education.

The population of elderly people in the world continues to increase with the

improvement of health services. With longevity, older people are at higher risk of chronic non-communicable diseases (NCDs), which are also the leading cause of death among older people.   Screening through case finding in primary care will enable early identification of NCDs and their risk factors, which may lead to a reduction in associated complications as well as mortality (Sazlina, 2015).

The world organization, United Nations, states that the world population is growing rapidly from 2.5 billion in 1950 to 6.9 billion in 2010 (Sazlina, 2015). By 2050, the world's population aged 60 years and over is expected to reach 2 billion. In fact, Indonesia is currently entering the early stages of an aging population with more than 25 million people currently aged ≥ 60 years or 9% of the total population (Husnayain et al., 2020).

This growth is attributed to lower fertility rates, greater life expectancy and better public health services. With age, more people are at risk of developing chronic non-communicable diseases (NCDs) such as cardiovascular disease, diabetes and malignancies (WHO, 2020). About 50% of adults aged 60 years or older have at least one chronic non-communicable disease and about one-third have at least two (WHO, 2017). This will lead to significant disability and reduced quality of life for older people. Moreover, among people aged 60 years and older, NCDs account for more than 80.0% of the healthcare burden in low-, middle- and high-income countries. Globally, NCDs are the leading cause of death and these include ischemic heart disease, stroke, chronic obstructive pulmonary disease, diabetes, hypertensive heart disease and malignancies (WHO, 2020). In 2012, approximately 45% of deaths among adults aged 70 years and over worldwide were due to NCDs (Sazlina, 2015).

As the population ages, health conditions in older adults require more attention. In this age group, not only single diseases but also multiple co-occurring chronic conditions are increasingly prevalent and lead to high healthcare costs (Rizzuto et al., 2017; Liang et al., 2018).

The Medical Laboratory Technology Study Program, Department of Health Analysts, Poltekkes Kemenkes Bengkulu in collaboration with the Central Bengkulu Regency Government, especially the Srikuncoro Working Area Public Health Center, conducted a public health screening of the elderly population in the area by checking glucose, cholesterol and blood pressure.

There is still a lack of public knowledge about prevention and the importance of recognizing who is at risk of non-communicable diseases and there is still a lack of cross-sectoral cooperation in the community towards the incidence of NCDs in the elderly. Based on the Bengkulu Health Office report accessed through 2020, 47% are elderly. This program assists the elderly health center in detecting the incidence of NCDs in the working area of Puskesmas Srikuncoro, Central Bengkulu Regency.

METHODS

The method of implementing this community service activity is by checking glucose, cholesterol, and blood pressure. The examination is also a socialization for education about NCDs. This community service activity will collaborate with the Srikoncoro Health Center, Central Bengkulu Regency. In addition, this activity also involved several students of the D3 TLM Study Program of the Poltekkes Kemenkes Bengkulu. The results of this community service activity can be used as a teaching material development for students.

RESULT AND DISCUSSION

This activity involved 50 elderly people who were residents in the Srikuncoro Health Center area of Central Bengkulu. The frequency distribution of gender can be seen in Table 1.

Table 1. Frequency Distribution of Elderly Gender

Gender	Total	%
Female	33	66
Male	17	34

Based on Table 1, the most common gender was female at 66% (33 people). Furthermore, the frequency distribution of glucose screening can be seen in Table 2 below.The table presented illustrates the sex distribution within a group. Out of a total of 50 individuals, 33 were female, accounting for 66% of the entire population. Meanwhile, the other 17 individuals were males, which accounted for 34% of the total population. Thus, the majority of the members of this group were females, while males made up the smaller portion of the group. These percentages give an idea of the sex composition of the group in question.

Table 2. Frequency Distribution of Glucose Levels of the Elderly

	Total	%
Normal	29	58
Prediabates	13	26
Diabetes	8	16

Table 2 shows that there are 16% of elderly people who have glucose levels above 200 mg/dL. Furthermore, the frequency distribution of cholesterol screening can be seen in Table 3 below.

Table 3. Frequency Distribution of Elderly Cholesterol Levels

	Total	%
Normal	35	70
High	15	30

Within a few months after conducting a community service program (PKM) in an effort to prevent the incidence of non-communicable diseases (NCDs) in the elderly through glucose and cholesterol screening in the working area of the Srikuncoro Health Center, Srikuncoro Village activated the sweet lansing village.

The purpose of this PKM activity is to check glucose, cholesterol, and blood pressure in the elderly in the working area of Puskesmas Srikuncoro as a form of screening for several diseases such as diabetes mellitus, hypertension, and other metabolite diseases.

This activity is carried out so that people with advanced age have awareness in checking their health regularly. This activity was held in collaboration with the Medical Laboratory Technology Study Program, Department of Health Analysts, Poltekkes Kemenkes Bengkulu with the Central Bengkulu Regency Government, especially the Puskesmas of the Srikuncoro Working Area.

Picture 1. Education of skrinning glukose and chlosterol

This activity was carried out in several stages. The first stage of the implementation of community service activities is taking care of licensing and coordinating with partners, namely the Srikuncoro Health Center, Central District.The second stage, preparation of tools and materials that will be used in checking glucose, cholesterol. The third stage, coordinating with the health center team to determine the schedule for examinations with the elderly.The fourth stage, preparing for the examination by following health protocols (providing masks and hand sanitizers). The fifth stage, providing socialization and discussion about the prevention of non-communicable diseases carried out by the PKM team.

Socialization and discussion of NCD material, regarding the prevention of NCDs through examination. About 50 people participated in this activity, the examination was carried out using Point of Care Testing.

A medical examination method that is carried out near or directly where the patient is. Such as at clinics, health centers, or even at the patient's home, without the need for a central laboratory. POCT allows health workers to get examination results quickly, so that clinical decisions can be made immediately. POCT tools are generally easy to use and often use small samples, such as capillary blood from fingertips, urine or saliva.

The examination results showed that 20% had cholesterol levels above normal. Furthermore, residents were advised to consult with the Puskesmas in the Srikuncoro working area.High appreciation is given to the Srikuncoro Health Center and the village government who have always been fully involved in all of these activities. Starting from the location survey until the end of the activity. They are committed and supportive of this activity as one of the efforts to control non-communicable diseases, especially for residents with advanced age (elderly).

They also hope that this activity is sustainable. This is in accordance with one of the village

values, namely gotong royong. The value of mutual cooperation by collaborating with the Poltekkes Kemenkes Bengkulu, especially the Health Analyst department.

CONCLUSION

This activity has the following conclusions Increased Elderly Health Awareness. Of the total 50 elderly who participated in the activity, it was found that most had glucose and cholesterol levels in the normal category. However, there were 16% of participants with high glucose levels (diabetes) and 30% of participants with high cholesterol (≥240 mg/dL) that required further attention. Participants with screening results indicating high risk have been directed to get further examination and more intensive treatment at Srikuncoro Health Center.This activity shows the importance of cooperation between health workers, academics, and the community in supporting the health of the elderly in a sustainable manner.

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CONFLICT OF INTERESTS

There is no party with an interest in this community service activity.

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