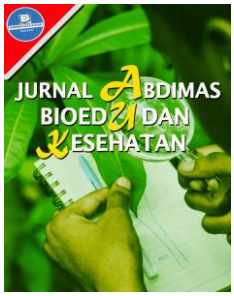

JURNAL ABDIMAS BIOEDU DAN KESEHATAN (JABK)

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Health Education and Physical Examination, Blood Pressure, Blood Sugar and Uric Acid

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Abstract

Hypertension cases will increase by 80%, especially in developing countries in 2025 based on the number of 639 million cases in 2000, estimated to be 1.15 billion cases in 2005. Understanding of this disease is not yet fully understood by the public, so education needs to be held to reduce the risk of stroke and other complications. There is currently a lack of early detection of complications such as hypertension, diabetes mellitus, and gout, so many sufferers are already experiencing complications. Awareness of healthy lifestyles in the community is low. The results of the service activities were based on all participants who attended, around 60% of the people who came had previously been diagnosed with hypertension. After checking their blood pressure, some of them had their blood pressure controlled. However, this condition needs to be maintained and even improved so that those with hypertension can control their condition and prevent them from experiencing further complications. Likewise, of those who experience DM, around 32%, but there are still some (24%) who have random high blood sugar levels, apart from that around (46%) have high uric acid so they need to improve their healthy lifestyle, especially in food consumption.

Keywords: hypertension, gout, diabetes mellitus

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Introduction

Complicated diseases often occur without early detection. Hypertension is a condition when the systolic blood pressure is more than 120 mmHg and the diastolic pressure is more than 80 mmHg. Hypertension often causes blood vessels which can result in higher blood pressure (Arif

Muttaqin, 2009). Hypertension or high blood pressure is the main cause of heart failure, stroke, and kidney failure. High blood pressure is called the "silent killer" because people with high blood pressure often do not show symptoms. Meanwhile, diabetes mellitus itself is a condition of chronic hyperglycemia accompanied by various metabolic abnormalities due to hormonal disorders, which causes various chronic complications in the eyes, kidneys, nerves, and blood vessels, accompanied by lesions on the basement membrane when examined using an electron microscope.

An unhealthy lifestyle means a health check is needed to detect disease as early as possible. Here we choose to check blood pressure, glucose, and excess uric acid. Education regarding diabetes mellitus and lifestyle to control blood sugar and uric acid is one of the important things to do, which aims both as a preventive measure against the disease and complications. Therefore, this community service activity does not rule out the possibility that it could also be a good example for other parties because global health problems are the responsibility of all parties, not just the responsibility of some or certain parties.

This activity aims to provide basic health information to the public regarding physical examinations, blood pressure, blood sugar, and uric acid. As well as providing education based on the results of health examinations to create a healthy society. Another aim is to determine the average blood pressure, blood sugar levels, and uric acid levels of the people of the Natar sub-district. So that if results are found that are not within normal limits, education can be immediately given to regulate your lifestyle and it is recommended to consult the nearest doctor. If we can identify abnormal processes in the body as quickly as possible, complications from the disease can be avoided as early as possible.

The benefits of this community service activity are expected to increase public knowledge about the symptoms, complications, and prevention of hypertension, gout, and diabetes mellitus. This examination is only a screening to continue further examination at the health center.

Methodology

The activity implementation stage includes: 1. Licensing; Submit an extension permit to Natar District regarding a request for a health examination; 2. Coordination with Local Religious Leaders and Leaders Coordination was carried out with Natar District Community Leaders to confirm the location of the health inspection activities; 3. Health Check: The health checks carried out include physical examination, blood pressure, blood glucose levels, and uric acid levels; 4. Reading of results: The results of the examination are recorded on a results card which is then given to the participants one by one regarding the results of blood pressure, blood glucose levels, and uric acid levels;5. Counseling: After the process of reading the results, the counseling process continues, namely by providing information about the risk of complications if blood pressure (Hypertension), glucose levels with the risk of Diabetes Mellitus, and uric acid levels exceed normal limits. Apart from providing information about the risk of complications at values above the normal limit, the public is also given information on how to prevent it and how to live a healthy life in the hope of improving their quality of life. If people are found with high blood pressure test results, blood glucose levels, and uric acid levels, they are advised to undergo an examination at a community health center or doctor. The target of inspection and counseling activities is to be carried out from May to July 2023 in the Natar sub-district. Targets for inspection and outreach activities in the surrounding community. The results of counseling and examinations can have a positive impact on society, especially on public health.

Results

Community service activity with the title "Health Education and Physical Examination, Blood Pressure, Blood Sugar and Uric Acid in Natar District". The number of residents who attended and underwent health checks was 50 people. The enthusiasm of the residents helps the running of this program. From the anamnesis carried out, it was found that several residents had a history of hypertension and many of them had a big risk factor for developing hypertension, namely a lifestyle that was not well controlled. When the activity started, people who came were directed to register, after which blood pressure measurements, blood glucose, and uric acid checks were carried out using the stick method. Then, members of the public who bring the results of the examination will be given information regarding the results of the examination regarding the risk of complications that can arise if blood glucose, uric acid, and blood pressure levels are above the normal threshold. From the results of the examination, knowledge is also provided on how to prevent diseases that will occur. Based on examination activities carried out in the community, it was found that 15 elderly participants were prehypertensive (some of whom already knew and some who didn't), and random blood sugar results were >200mg/dl. Apart from that, public knowledge has increased with health education about hypertension, gout, and diabetes mellitus. The community was very enthusiastic and eager to take part in the counseling after the examination.

Table 1. Hypertension Categories

Category	Systolic (mmHg)	Diastolic (mmHg)
Normal	< 120	<80
Prehypertension	120-139	80-89
Grade 1 Hypertension	140-159	90-99
Grade 2 Hypertension	>160	<100

The normal value for fasting blood sugar levels is <126 mg/dl, while the temporary blood sugar level is <200 mg/dl. When examining uric acid, the normal value taken for men is 3.4 – 7.0 mg/dl, and for women is 2.4-6.0 mg/dl.

Table 2. Examination results of Community Service participants

Inspection	Frequency	Percentage (%)
Age		
	25	50
	15	30
	10	20
Mature		
	17	34
	33	66
Pre elderly		
	25	50
	15	30

	10	10
Elderly		
	40	80
	10	20
Gender		
	30	60
	10	20
	10	20
Man		
	12	24
	38	76
Woman		
	14	28
	36	72
Body mass index		
	23	46
	27	54

Around 60% of people who come have previously been diagnosed with hypertension. After checking their blood pressure, some of them had their blood pressure controlled. However, this condition needs to be maintained and even improved so that those with hypertension can control their condition and prevent them from experiencing further complications. Likewise, with those who experience DM, around 32%, but there are still some (24%) who have high random sugar levels, apart from that around (46%) have high uric acid so they need to improve their healthy lifestyle, especially in food consumption. Based on the results of counseling and health examinations, there are still many people who do not care about healthy lifestyles and avoid eating triggers such as foods high in glucose in DM sufferers. It is necessary to improve health education and evaluate activities to monitor developments in public health.

Conclusion

Community service with the topic "Health Education and Physical Examination, Blood Pressure, Blood Sugar and Uric Acid in Natar District" has been carried out well. The community's response was very good and they hope that similar activities will be carried out regularly. Suggestion: Health education like this should be sustainable for both the community and their families because as people get older the indifferent nature of the community can endanger their health. Apart from that, children and siblings from the community are also responsible for maintaining the health of their father, mother, and siblings with adequate knowledge.

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