

## PUBLIC HEALTH EDUCATION THROUGH BLOOD PRESSURE, BLOOD SUGAR AND GOUT CHECKS IN PANGKEMIRI VILLAGE

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### Abstract:

**General Background:** Public health awareness, particularly in rural areas, is often limited, with people neglecting basic health monitoring. **Specific Background:** In Pangkemiri Village, health checks are rare, leading to undetected conditions related to blood pressure, blood sugar, and uric acid. **Knowledge Gap:** There is insufficient knowledge among the public regarding regular health checks and preventative care. **Aims:** This study aims to increase community awareness of health through free health checks and education organized by Real Work Lecture (KKN) students. **Results:** The activity involved blood pressure, blood sugar, and uric acid checks, as well as health education on maintaining normal levels. The high community participation demonstrated an increased understanding of health monitoring. **Novelty:** This initiative provided direct health services and consultations, empowering rural residents with critical information about their health status and prevention measures. **Implications:** The results indicate that continued health education and regular check-ups can lead to early detection of health conditions, fostering healthier lifestyles in the community. This program can serve as a model for future health-focused community service activities.

**Keywords:** Education, Health, KKNT 2024, Pangkemiri

### INTRODUCTION

The success of development which covers various aspects of people's lives cannot be separated from the success of development in the health sector. One of the developments in the health sector is to improve the quality of human resources and the environment that support each other with a healthy paradigm approach that gives priority to efforts to improve health and is directed to increase awareness, willingness and ability to live a healthy life for everyone so

that the highest level of public health improvement can be realized. (Ministry of Health of the Republic of Indonesia, 2013).

Health factors are closely related to the quality of human resources, while the high or low quality of human resources will be determined by health status, education and income level, therefore a relatively good health status is needed by humans to support all their life activities (Gunawan Lany, 2011).

Basically, obtaining health is a basic right for everyone regardless of the economic and social status of the community itself (Herwati et al., 2013). However, in practice, health services for the community have not been able to reach all citizens, especially for health services for the underprivileged can be categorized as far from satisfied (Singgih, 2010). Efforts to improve health certainly require a lot of money (Sutejo. A, 2008), Therefore, in the context of the Routine Study in Pangkemiri Hamlet, Integrated KKN Students from the University of Muhammadiyah Sidoarjo held community service activities to create a healthy community both physically and spiritually, in the form of free health checks in Pangkemiri Hamlet, Tulangan, Sidoarjo Regency.

## METHOD

The implementation method carried out in this activity is carried out by offering blood pressure (tension), blood sugar and gout checks then followed by the presentation of material about blood pressure (tension), blood sugar and gout which aims to make participants who come understand more about blood pressure (tension), blood sugar and gout and can implement a healthy lifestyle from the presentation of the material that our group is presenting.

The tools and materials used in checking blood pressure (tension) are digital blood pressure (tension) measuring devices (digital sphygmomanometer). The procedure for checking blood pressure (tension) is as follows:

- a. Remind the patient to be calm and rest the patient from all activities for approximately 15 minutes before the measurement.
- b. The patient is positioned in a sitting position with the legs not crossed and the soles of both feet on the floor.
- c. Communicate to the patient to loosen the garment covering the right arm to about 2 cm above the elbow line (the patient's arm is not entangled by the sleeve of the garment that has been previously straightened).
- d. Attach the cuff to the arm slowly by paying attention to the position of the hose, which is parallel to the middle finger of the right arm.
- e. Once the cuff is in the correct position, glue the cuff with medium pressure (neither too loose nor too tight).
- f. Position the blood pressure measuring device as much as possible parallel to the left chest (heart position).
- g. Instruct the patient to remain calm during the examination and advise

the patient not to speak during the blood pressure measurement process. Ensure that the patient's arm is positioned correctly and that the patient's palm is relaxed (not grasped). And also ensure that the hose contained in the blood pressure measuring device is in a straight state, free from pressure and curves.

- h. Press the "START/STOP" button to activate the blood pressure monitor.
- i. Allow the blood pressure measuring device to perform the blood pressure measurement process until all parameters to be measured (systolic blood pressure, diastolic blood pressure, mean arterial pressure, and pulse) are read on the monitor.
- j. Ensures the patient stays relaxed until the next measurement process
- k. Record the results of blood pressure (tension) measurements.

The tools and materials used in checking blood sugar are as follows:

- a. Digital blood sugar checker (glucometer).
- b. Glucose test strips (blood sugar strips).
- c. The lancing device and its propulsion device (lancing device).
- d. Alcohol swab 70%.
- e. Plastic/trash can.
- f. Examination result sheets and stationery.

The procedure for checking blood sugar is as follows:

- a. Give a greeting, record the patient's name.
- b. Explain the purpose and procedure of checking blood sugar.
- c. Allow patients to ask questions or do something before the activity is carried out.
- d. Setting up a comfortable position for clients.
- e. Insert the gluco strips into the glucometer.
- f. Insert the lancet into the lancet device.
- g. Clean the fingertips of the client to be pierced with the lancet with alcohol swab.
- h. Place the lancet device at the client's fingertips, and press the lancet device like pressing a pen.
- i. Put the blood that comes out into the glucose strip (must be in the same direction).
- j. Wait for the results to come out.
- k. Convey the blood sugar results to the patient.
- l. Record the results of blood sugar measurements.



**Figure 1.** Checking Tension, Blood Sugar and Uric Acid, Lancet Device, and Alcohol Swipe.

In this activity, the members of the small group divided the tasks in the implementation of the activity, namely, Lintang Ambarawa was in charge of checking blood pressure (tension) and responding to consultations from participants regarding blood pressure (tension), Andre Nur A.R was in charge of checking blood sugar and uric acid levels and responding to consultations from participants regarding blood sugar and uric acid, and Farihna was in charge of recording blood pressure results (tension), blood sugar and uric acid levels, as well as helping activity participants.

## RESULTS AND DISCUSSION

Public health education events regarding blood pressure (tension) and blood sugar showed that out of 45 people, 30 people did not know normal blood pressure (tension) and blood sugar levels and only 10 people stated the importance of conducting health checks.



**Figure 2.** Education About Health

In addition to conducting health checks, students also provide counseling on the importance of maintaining a healthy lifestyle, including eating nutritious food, exercising regularly, and conducting regular health checks.



**Figure 3.** Blood Pressure Check



**Figure 4.** Checking Darag Sugar and Uric Acid

This activity is an important step in increasing public awareness of the importance of health monitoring. With the data obtained from the results of the examination, the public became more aware of their respective health conditions, which encouraged them to be more active in maintaining their health.

The results of the examination showed that a number of participants experienced hypertension, high blood sugar levels, and hyperuricemia. These findings are an early indication that there is a need for further health programs, such as further counseling, dietary education, and possible referrals to health facilities for better treatment.

The counseling conducted by KKN students provides valuable information about disease prevention and the importance of a healthy lifestyle. Students not only carry out examinations, but they also function as agents of change who disseminate health information to the public, which is expected to

change the living behavior of citizens for the better.

This activity shows the active involvement of students in helping the community, as well as strengthening the relationship between students, the community, and the mosque. The interaction that is established during the activity can open up opportunities for future health programs, by involving more participants.

While this activity has been successful in reaching the community, there is a need for follow-up in the form of periodic health programs that can be carried out regularly, such as health checks or health seminars. This is important to keep the public educated and conduct regular health monitoring.

After the presentation of the material regarding blood tension and blood sugar, as well as checking blood pressure, blood sugar and gout, the response from the mothers who were the target of our work program, they accepted with open arms and gladly. These women are grateful to us for presenting material on tension and blood sugar which aims to increase public awareness of the importance of health checks and health checks (blood pressure, blood sugar and gout checks) for free. In addition, the obstacles faced when the work program is carried out:

- a. The number of people is not in accordance with our expectations, previously we have communicated with the Chairman and Mrs. RT 04/RW 08, who informed that the people who will come in the health check are 70 people, while only 45 people come.
- b. The lack of availability of equipment for checking places (such as tables for checking) so that the checking flow is not directed which results in uncondusive checking.
- c. The lack of enthusiasm of the community in receiving and digesting the material we presented in our group work program is caused by fear in checking blood tension and blood sugar.

## CONCLUSION

**Fundamental Finding:** The free health check activity significantly increased public knowledge regarding blood pressure and blood sugar levels, as well as the importance of regular health monitoring. **Implication:** This increase in awareness is crucial for early detection and prevention of health conditions, fostering healthier lifestyles in the community and potentially reducing the risk of related diseases. **Limitation:** However, the activity was limited to a small population and focused on basic health checks, without addressing broader health issues or providing long-term follow-up. **Further Research:** Future programs should explore larger-scale initiatives with diverse health screenings and longitudinal studies to assess the long-term impact of health education and preventive care on rural populations.

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