

Education on Vegetable and Fruit Processing to Keep Maintaining Nutritional Levels in Benangkah Village, Burneh, Bangkalan

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ABSTRACT

The purpose of this activity is to increase participants' knowledge about the correct processing techniques for vegetables and fruit to maintain nutrient content. Furthermore, increase participant awareness to consume vegetables and fruit to meet daily nutritional requirements. This activity consists of four stages. First, the introduction of the situation. At this stage the committee conducts a regional survey and then determines the problem, then the activity targets are known. The second is planning, this consists of performance formation and preparation activity program. The third is implementation of activities and the last is assessment. This activity was carried out on January 27 2023. The community was enthusiastic about this activity and began to open their awareness about caring for their health.

INTRODUCTION

Riskesdas 2018 shows the prevalence of non-communicable diseases has increased compared to Riskesdas 2013. Diseases that have experienced an increase include chronic kidney disease, stroke, cancer, hypertension and diabetes mellitus. The prevalence of cancer increased by 0.4%, stroke by 3.9%, while chronic kidney disease increased by 1.8%. Based on the results of blood sugar examinations, the prevalence of diabetes mellitus increased by 1.6%; and blood pressure measurement results, hypertension increased by 8.3% (Riskesdas 2018).

People generally choose food only to meet energy needs or in layman's language, that is, as long as they are full without paying attention to their nutritional value. This situation causes the high incidence of degenerative diseases in all age groups (Arafah et al, 2020).

Basically, the community, especially housewives, already know about the importance of providing vegetables in the diet for their families, but they lack knowledge about vegetable processing techniques that can maintain their nutritional value. In addition, knowledge on how to process fruit in order to maintain its nutritional value is also lacking (Kemenkes, 2020).

The chemical components in fruits and vegetables are water, carbohydrates, proteins, vitamins, minerals and a little lipid. Vegetables and fruit as plant food ingredients are rich in antioxidants and high in unsaturated fats. Antioxidant components in vegetables and fruit include ascorbic acid, carotenoids, flavonoids, tocopherols, flavonoids, saponins, tannins, triterpenoids (Pardede E, 2013).

The processing processes that vegetables and fruit go through are usually cut, washed and cooked. Vegetables are generally cooked before being consumed to enhance the taste, sometimes they are eaten raw as fresh vegetables. The common ways to cook vegetables are boiling, steaming and sautéing. Fruit is more often consumed directly, the processing process is usually mashed with a blender or juice, sometimes certain types of fruit are cooked. All of these processes can remove several types of vitamins and antioxidants found in vegetables and fruit.

Several types of vitamins and antioxidants are naturally found in foodstuffs, their content can be reduced when subjected to processing, especially cooking. Natural antioxidants have different chemical structures and stability such as α -tocopherol (vitamin K) which is quite resistant to heat, during processing it can be lost mostly due to oxidation. Ascorbic acid (vitamin C) can be degraded by heat, air, alkaline conditions and the activity of enzymes that form oxalic acid and threonic acid. Carotenoids (vitamin A) are relatively stable to the cooking process but very sensitive to oxidation (Andarwulan and Koswara, 1989). Phenol group antioxidants are also not resistant to the cooking process (Aisyah Y, 2014).

All ways of processing food can reduce the nutrient content of food ingredients. Exposure of vegetables and fruit to heat, oxygen and light will cause loss of several types of vitamins and antioxidants above. Washing vegetables and fruits can remove water-soluble vitamins. Cooking processes

with high temperatures such as frying reaching 1600 C can also reduce the mineral content of calcium, iodine, zinc, selenium and iron (Khomsan A 2002).

IMPLEMENTATION AND METHODS

Implementation of this activity through 4 (four) stages:

1. Introduction to the situation, picture/situation

At this stage the committee conducts a regional survey and then determines the problem, then the activity targets are known.

2. Planning

This stage consists of activities:

- a. Formation of counseling performance.
- b. Compilation of counseling activity programs.

3. Implementation

The action in this activity is in the form of planning implementation. The activities carried out were educational socialization on how to process vegetables and fruit followed by hands-on practice to the participants.

4. Assessment

This stage is carried out to find out whether the activities that have been carried out are running smoothly as seen by how enthusiastic the community is for education and practice on how to process vegetables and fruit to maintain their nutritional value.

This activity will be carried out in the Village of Beneh, Burneh District, Bangkalan Regency on January 27 2023 at 09.00 - 12.00 am.

RESULTS AND DISCUSSION

This community service activity is carried out with an extension approach. Extension activities carried out in the form of socialization delivery of material followed by practical activities. The material for socialization and practice in this activity is "How to Process Vegetables and Fruits to Keep them Nutritious". After arriving at the location of the activity, the committee prepared the tools and materials for the activity. The event began by being opened by the MC then continued by the presenter delivering the socialization material. About 25 people were present before the event started. The community was quite enthusiastic about participating in this activity from the beginning to the end of the activity. When the speaker delivered the material, the community was quite enthusiastic to listen. After the presentation of the material is complete, enter into the question and answer session of the participants to the presenters. The community was quite enthusiastic in this session, as evidenced by asking several questions related to the material. After the question and answer session was over, it was followed by practical activities in processing vegetables and fruit. The community enthusiastically watched the demonstration activities on how to properly process, cut and wash vegetables and fruit so that a lot of the nutrients in them were not wasted.

The number of participants who attended actually did not meet the initial target number. The target in this activity is the number of participants

who attend at least 30 people. But with the number of 25 people present, they have shown their enthusiasm for this activity. In the question session, there were several people who asked about degenerative diseases that began to appear in old age.



Picture 1. Material Explanation



Picture 2. Practice Activities

CONCLUSIONS AND RECOMMENDATIONS

This activity is starting to open up their knowledge and a little awareness to them about concern for their health. The executor's further hope is that they are starting to realize that they need to pay attention to the intake of nutrients they consume every day, instead of just eating to be full.

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