

# The Development of Diverse, Nutritious, Balanced and Safe (B2SA) Formulation Menu Based on Local Food in Sukoharjo

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**Abstract.** Wonorejo Village, Polokarto, Sukoharjo has the potential for a diversity of agricultural products that can be chosen as an option for daily consumption. However, the understanding of the importance of, B2SA based on local food had not been deeply aware by the community. Counseling and training on preparing local food-based on B2SA menus need to be done at the smallest level, namely families, especially mothers. A mother plays a vital role as a determinant, family menu provider, and quality of food consumption controller. The method of activities was carried out through several stages: *first*, counseling to improve the understanding of B2SA consumption patterns and a stock stacking of potential local agriculture products; *second*, training and practicing in preparing B2SA menus; *third*, assisting the application of B2SA menu in daily life. The evaluation of counseling activities was conducted by pre-test and post-test in the form of recording to see the improvement of the participants' understanding. The result indicated that the community service activities were running smoothly and successfully as expected. The improvement of participant understanding reached 62.78% in the counseling activity relating to B2SA. The assessment result of practicing the B2SA menu preparation from the participants showed that the majority included in a very good category (5 groups) and good category (2 groups). The results of assisting the implementation of the B2SA menu for daily meals were aligned with the principle of B2SA based on local food that is dominated by suitable and very suitable categories.

**Keywords:** *family welfare guidance (PKK), B2SA consumption patterns, local food, village*

## INTRODUCTION

Wonorejo Village, Polokarto District, Sukoharjo Regency, is located in the northeast of Sukoharjo Regency, bordering Karanganyar Regency. The

location of this village is less than 1 km to the downtown of the Polokarto District. Polokarto District is one of the regions in Sukoharjo Regency, which is known to have the highest production of rice, corn, cassava, and peanuts [1]. In 2016, the rice production reached 48,324 tons, corn 7,096 tons, cassava 4,221 tons, and peanut 2,394 tons. Similar to other communities in the Polokarto District area, the crops cultivated by the Wonorejo Village community include rice, corn, cassava, peanuts, vegetables, and fruits [2]. The dominant grown vegetables are long beans and large chilies. The production of long beans reached 63 quintals, and large chilies were 103 quintals in 2016. Fruits that are often found in the Polokarto region include star fruit, rambutan, mango, guava, soursop, sapodilla, breadfruit, banana, and papaya. Diverse agricultural output is one of the potential to improve the nutritional status of the community and to fulfill the locals' dietary needs [3]-[5].

Wonorejo Village has several social organizations, one of which is Family Welfare Guidance (PKK). The organization is one tool that can be utilized in community empowerment, primarily through a small scope, namely family. It is expected that the information and knowledge will be easily accepted and directly applied. The organization has roughly 73 active members with social gatherings as their routine activity.

The PKK organization in Wonorejo Village was centered in the Wonorejo Village Office with Mrs. Sumaryati, the Head of village's wife, as a mentor. The majority of PKK administrators are the wives of the local community members, while some fields are managed by women activists. The organization is a combination of PKK groups at the hamlet (RW) level. The PKK group at the RW level is a combination of the PKK at the neighborhood (RT) level. Wonorejo village is divided into two service areas consisting of 6 hamlets and 29 neighborhoods. Adzmy and Disyacitta claimed that in this current democratic era, PKK has been visualized as a women's organization working with the government to promote social welfare, beginning at the family level [6].

The existence of PKK in Wonorejo Village is fundamental as a driver for community activities in

some sectors, i.e., agriculture, economy, education, and health at the family level. The activities carried out by PKK members are known to provide benefits as one of the economic drivers of the Wonorejo village community. PKK members in Wonorejo Village expect to do prevention and anticipation to avoid malnutrition in their area.

Indonesia Government has issued Presidential Regulation (Perpres) No. 22 of 2009 on the Acceleration of Food Consumption Diversity Based on Local Resources [3]. This regulation mandates that in order to have food diversification, various systematic and integrated efforts are needed. This Perpres has been followed up, with Minister of Agriculture Regulation No.43 of 2009, concerning the Movement for the Acceleration Food Consumption Diversity Based on Local Resources (P2KP) as an operational reference for its implementation.

As the implementation of the Presidential and Minister Regulation, the Ministry of Agriculture, through the Food Security Organization, has launched a program to optimize the use of yards since 2010. The program is expected to improve the quality of community food consumption to establish food consumption patterns that are diverse, nutritionally balanced, and safe (B2SA). The main objective of the B2SA Activity Program is to raise awareness and cultivate diverse, nutritious, balanced, and safe food consumption patterns for healthy, active, and productive living in the community with the target of the PKK Team and society. PKK is found throughout Indonesia, where it occupies a strategic position and role owing to its ability to reach people at the grassroots level. PKK has ten key programs to guide its activities and is expected to work together with regional governments at the regency/municipal level [7].

Based on observations and discussions that have been conducted between the Team and PKK management, it is known that the majority of the community (more than 60%) are still unable to utilize natural resources properly. Local food processing carried out by the community tended to be simple and monotonous, so that the utilization of local food ingredients has not been done to the fullest. The results of observations and discussions that had been carried out indicated that the PKK of Wonorejo village did not know yet for the diverse, nutritious, balanced, and safe (B2SA) food consumption patterns so that people still showed a tendency towards less diverse consumption patterns. The majority of PKK members did not have sufficient knowledge and skills about daily menu preparation by utilizing and processing local food into a diverse, nutritious, balanced, and safe menu option.

Based on these issues, B2SA socialization and training are needed for cadres and PKK members including, (1) Socialization of food consumption

patterns and preparation of diverse, nutritious, balanced, and safe menus based on local food, (2) Training on the preparation of menus and consumption patterns of the local resource based on diverse, nutritious, balanced, and safe (B2SA) and (3) Assistance for the preparation of menus and process of local resource as well as the presentation of B2SA consumption patterns menus. The objective of the socialization and training is the cadres and members of the PKK will be able to apply diverse, nutritious, balanced, and safe food consumption patterns. In addition, this activity will improve the soft skills and hard skills of cadres and PKK members in utilizing local food so that it can improve family health welfare in general.

## METHOD

The method of activities carried out through several stages as follows: *first*, counseling to improve the understanding of B2SA consumption patterns and a stock stacking of potential local agriculture products; *second*, training and practicing in preparing B2SA menus; *third*, assisting the application of B2SA menu in daily life. Evaluation of counseling activities was done by pre-test and post-test to find out the improvement of participant understanding. The assessment of practice was done by recording. An overview of the methods performed is presented on the flow chart Figure 1.

### Stage I: Counseling

Counseling is related to food consumption patterns and preparation of a diverse, nutritious, balanced, and safe menu based on local food. Counseling was carried out at the Wonorejo village hall by inviting PKK management and cadres. Counseling was given in the form of lectures, discussions, and questions and answers. The duration was 1 x 90 minutes.

Counseling material delivered includes food consumption patterns and preparation of diverse, nutritious, balanced, and safe menus by utilizing local food ingredients and food menus that contain complete nutrition with balanced amounts, including energy, protein, vitamins, and minerals. The food menu also has the quality of taste, digestibility, and acceptance of the community

### Stage II: Training

Training on menu preparation and patterns of local food consumption is diverse, nutritious, balanced, and safe (B2SA). The training was held at Wonorejo Village Hall. The training was in the form of practice and demonstration, as well as discussion (question and answer). The training duration was 2 x 90 minutes. The training material consists of training on making food based on local food into a variety of menus that meet the principles of B2SA food consumption patterns and practicing how to preset menus, which meet the principles of B2SA food

consumption patterns.

**Stage III. : Assistance**

Assistance is in the form of menu preparation and processing of local foodstuffs as well as the presentation of B2SA consumption pattern menus. The assistance was carried out through the team visiting a number of random participants to see the implementation of the daily menu presentation. Each team member goes to the house of 2-3 participants spread over 6 RWs. Each RW region is represented by 2-3 participants. The menus served on that day are seen and recorded. And then, the team and participants evaluated whether the menu presented that day was in accordance with the principles of local food-based B2SA.

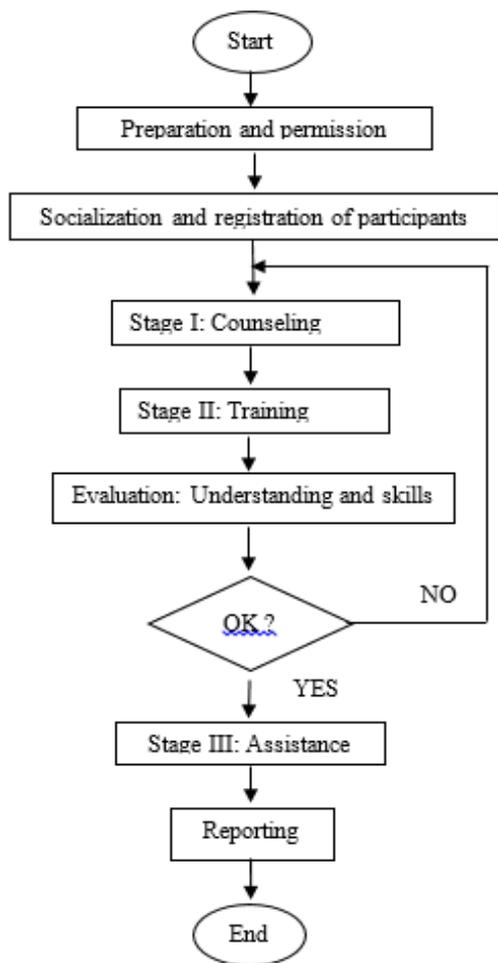


Figure 1. Program Implementation Method Flow Chart

**Evaluation**

An evaluation of the implementation of counseling and training activities is carried out to see the participants' knowledge and abilities of theory and practice. The evaluation is carried out in two stages. In the first stage, before the program starts, a preliminary test (pre-test) is held to find out how far the participants' understanding of the material to be

delivered. In the second stage, a written test/evaluation is held after the program is completed (post-test). The scores are the mean scores of all answers. The overall score is from the average of all participants. The indicator of success is if the post-test score increases  $\geq 25\%$  from the pre-test score.

The evaluation on the implementation of practice was conducted by assessing the data from the recording conducted by participants. The items of the assessment sheet consist of preparation of ingredients (20%); preparation of equipment (20%); implementation of local food-based B2SA menu preparation (40%), and serving (20%). Score = 1, 2, 3, 4 or 5 (1 = very less, 2 = less, 3 = enough, 4 = good, 5 = very good). Value = Score x Weight.

The evaluation of assistance was carried out with recording techniques. The recording was done on a note sheet. On that sheet, the suitability of the menu presented by respondents is categorized as very suitable, suitable, less suitable, and not suitable.

**RESULT & DISCUSSION**

The counseling of food consumption patterns and preparation of a diverse, nutritious, balanced, and safe menu (B2SA) based on local food was held at the Wonorejo Village Hall on August 15, 2018. Provision of material delivered in theory with the lecture method. Counseling used LCD aids and the Powerpoint program. After the material delivery, the activity was continued with discussion and question and answer sessions. Approximately 40 people attended the program, including PKK cadres from RT, RW, and Village representatives. The counseling situation is illustrated in Figure 2.



Figure 2. Situation of Counseling activities about B2SA in Wonorejo village

This counseling activity was intended to increase the participants' understanding and knowledge of local food-based B2SA theories. Theories include the principles, concepts, and examples of local food-based B2SA menus. Evaluation is done by seeing the pre-test and post-test scores. Improved understanding is calculated from the average difference in the post-test and the pre-test scores, and then divided by the average pre-test value multiplied by 100%. The results of the evaluation conducted in

the extension activities and training on local food-based B2SA menu preparation in the PKK of Wonorejo Village are presented in Figure 3.

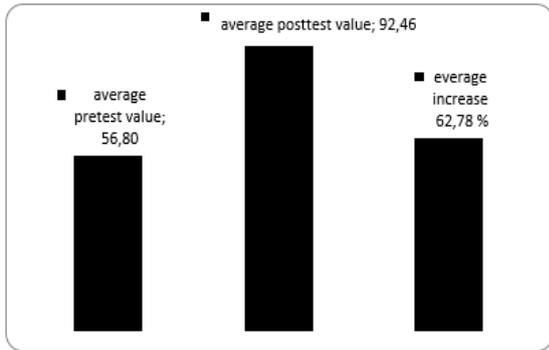


Figure 3. Evaluation results from counseling activities

Figure 3 shows that the average pre-test score was 56.8, while the average post-test score was 92.46. The number of participants was 40 participants. The result indicates that the participants' understanding reached 62.78%, which means there is an improvement in their understanding level. These results exceeded the set target of > 25%. These results were consistent with the opinion of Sriningsih, which states that counseling is a learning process for the main actors and business actors so that they are willing and able to help and organize themselves in accessing market information, technology, capital, and other resources [8]. PKK cadres in Wonorejo Village have actively participated so that the understanding of B2SA has been well received.

Training on preparing menus and patterns for B2SA local food consumption was held on Sunday, September 2018, around 1.00 pm to 3.30 pm. The menu preparation training was carried out using the demonstration method. The team gave examples of how to compile menus followed by direct practice from the participants in groups. Practical activities were followed by seven groups. The practice of each group was assessed by an instructor. Evaluation results from training activities are presented in the following Table 1.

Table 1. The value of the practice of preparing B2SA menus by the participants

Group	Value	Category
Anggrek	480	Very good
Mawar	460	Very good
Melati	360	Good
Kantil	480	Very good
Flamboyan	500	Very good
Adenium	380	Good
Kenanga	460	Very good
Rerata	462,86	Very good

Category : 0-99: very less; 100-199: less; 200-299: enough; 300-399: good; 400-500: very good

The assistance provided is in the form of preparing a menu, processing local foodstuffs, and serving the B2SA consumption pattern menu. The assistance was carried out through the team visiting a number of random participants to see the implementation of the daily menu presentation. Each team member goes to the houses of 2-3 participants spread over 6 RW. Each RW region is represented by 2-3 participants. The menu presented on that day was seen and recorded together by the team and the participants. Then they did an assessment together to see whether the menu presented on that day was in accordance with the principles of local food-based B2SA.

The number of participants who join the program were 15 participants, spread over 6 RWs. The results are as presented in Table 2.

The principles of local food-based B2SA are illustrated in the sheet brought by the companion. On that sheet, the suitability is categorized, including very suitable, appropriate, less appropriate, and very inappropriate. If the menu presented on that day falls into the category of inappropriate or highly incompatible with the principles of local food-based B2SA, participants are reminded to improve the menu for the next day.

Table 2. The results of the recording in the B2SA menus preparation assistance

No	Hamlet	Number of participants accompanied	Compliance with B2SA principles local food based			
			Very suitable	Suitable	Less suitable	Not suitable
1.	Rw I	3	1	2	-	-
2.	Rw II	2	-	2	-	-
3.	Rw III	3	1	1	1	-
4.	Rw IV	2	1	1	-	-
5.	Rw V	2	1	-	1	-
6.	Rw VI	3	2	1	-	-
Total		15	6	7	2	-

CONCLUSION

The results indicate improvement of participant understanding, which reached 62.78% in the counseling activity about B2SA. The assessment result of practicing the B2SA menu preparation among participants showed that the majority was included in the very good category (5 groups) and the good category (2 groups). It is aligned with the principle of B2SA based on local food, which is dominated by suitable and very suitable.

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