

## AN INTEGRATED HEALTHY BREAKFAST EDUCATION FOR TEACHERS, SCHOOL CHILDREN, AND PARENTS IN WEST JAVA

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**Abstract** – Both skipping and unhealthy breakfast are frequent among Indonesian school children that may cause by low income and lack of awareness on benefits of healthy breakfast. Previous breakfast educations at school focus on the children. The objective of this community services was to build awareness of teachers, school children, and parents integrated. The method of this program was to train teachers, to educate parents, and to educate school children (3rd-6th grades) about healthy breakfast. A material of teacher training and education includes healthy breakfast, healthy snacks, and supported by comics and “cakram” of healthy breakfast. The material given to the target groups includes healthy breakfast; safe snacks, balanced nutrition, and hand wash through oral communication by example, reading comics and discussion. This community service was held on April 2017-April 2018 in Bandung, Tangerang, and Bogor of West Java in collaboration with PERGIZI PANGAN Indonesia and PT Indofood Sukses Makmur. The results showed healthy breakfast education goes well as planned. As much as 221 teachers, 4713 primary school children, 270 parents were educated on that topics. The trained teachers and parents agree to continue the healthy breakfast education program, once each semester. The children said that the design and the messages on healthy breakfast in the comics were interesting and easily understood.

**Keywords:** breakfast education, healthy breakfast, parent, school children, school teacher.

### INTRODUCTION

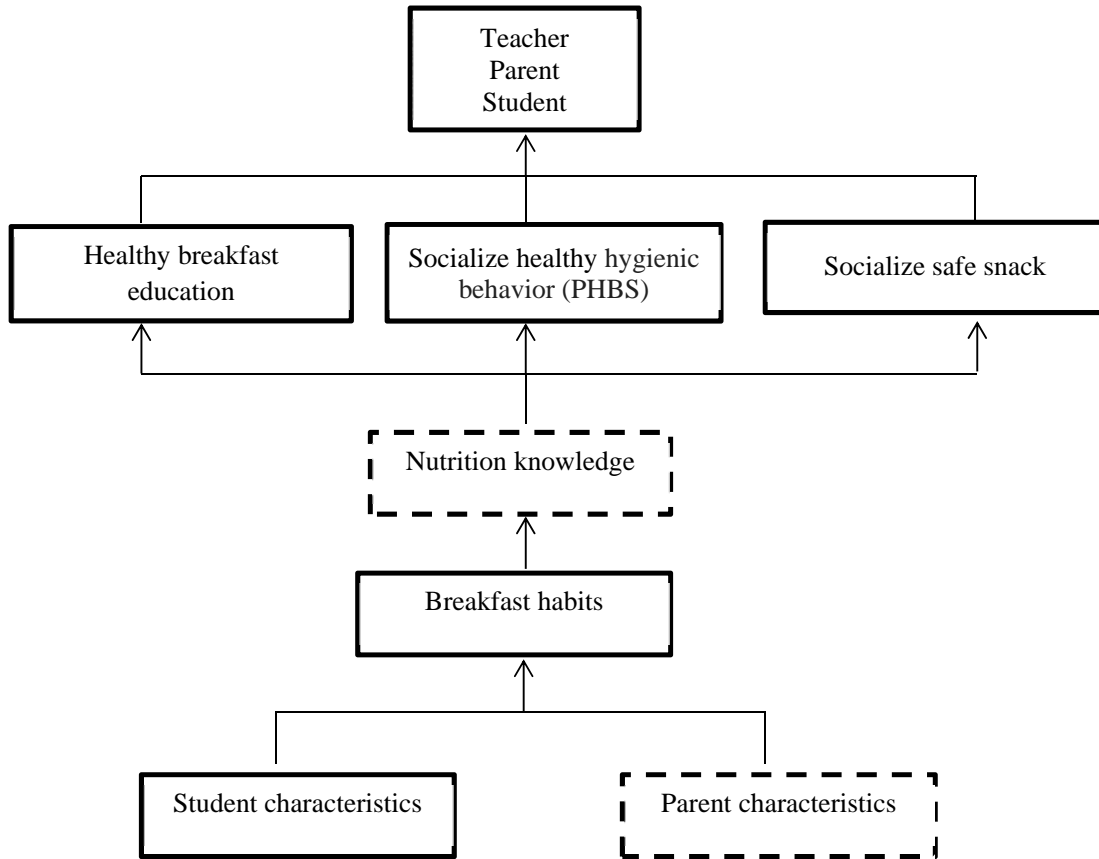
Various studies show the problem of not having breakfast in children, adolescents, and adults in Indonesia is still a concern. Healthy breakfast is a safe and nutritious eating and drinking activity that fulfills 15-30% of the nutritional needs before 9 am, as one of the balanced nutrition behaviors in order to realize healthy, active and intelligent life behavior. The prevalence of children and adolescents does not have breakfast is 16.9% -59% (Naskah Akademik Pekan Sarapan Nasional, PERGIZI PANGAN Indonesia 2012). The results of the analysis of food consumption data from Riskesdas (2010) on 35,000 school-aged children showed that almost half (44.6%) of children who ate breakfast only received less than 15% of their energy needs and there were still many who had not consumed protein and vegetable or fruit foods at breakfast (Hardinsyah & Aries M 2012).

Whereas various studies show that breakfast has tremendous benefits such as (Brown *et al.* 2008), 1) keeping the body strong and healthy, 2) improving memory and enthusiasm for learning, 3) making children smart and cheerful, and 4) disciplining themselves including sleep and eating and prevent snacks (Huang 2010). On the contrary, studies show that not having breakfast adversely affects student learning, decreases physical activity, causes obesity in adolescents and adults and increases the risk of unhealthy snacks.

UU No 36/2009 about health mandates the need to realize balanced nutrition as one of the efforts to improve nutrition, and one of the balanced nutrition messages based on Permenkes no.41/ 2014 is "habits to breakfast" which needs to be socialized and improved purposes of community service are: (1) Providing healthy breakfast education and breakfast together as part of a balanced nutrition message, to 4713 elementary school students in 3 cities in West Java; (2) Socializing the importance of healthy breakfast and safe snacks as part of a balanced nutrition message to 221 teachers and 270 parents in 3

cities in West Java; (3) Socialize comics let's have a healthy breakfast in building public awareness, especially school students and teachers about the benefits of breakfast; and (4) Socialize the importance of hand washing with soap before eating or breakfast as part of balanced nutrition behavior and healthy hygienic behavior.

**THEORETICAL FRAMEWORK**



**Figure 1.** Framework an integrated healthy breakfast education for teachers, school children and parents in West Java

**METHOD**

**Time and place**

This activity was carried out in 3 cities, namely Bandung, Bogor, and Tangerang, starting April 2017 to April 2018. Bandung was held on from 11-12 Mei 2017, Tangerang was held on 6-8 April 2017, and Bogor was held on 26-27 April 2018. The time and location of the organization in each location were adjusted to the agreement with the relevant institutions in the area including the local government (Education Office).

Participants or targets of this program are 4713 students, 221 teachers, and 270 parents in 3 cities in West Java with the following details:

1. A total of 4713 elementary school students were in grade 1 to 6 students from elementary schools selected in 3 cities in West Java
2. A total of 221 primary school teachers are teachers from each selected primary school in all selected cities from 3 cities which are facilitators in the education of healthy breakfast in class divided by 1 teacher per class. before becoming a facilitator, prospective facilitator teachers are first socialized and trained by the central committee and facilitators (lecturers and students) in each school where the implementation of the healthy breakfast education.

3. A number of 270 parents of 1st and 2<sup>nd</sup>-grade students who had breakfast together at selected elementary schools

#### **Type, amount, preparation and presentation of healthy breakfast**

The type of healthy breakfast distributed to all elementary school students and participating teachers and officers involved were in the form of fried noodles accompanied by an egg (boiled or fried) and three tablespoons of steamed cabbage or boiled without sauce, water and milk. This healthy breakfast contains approximately 500 kcal and 18 grams of protein and various vitamins, minerals and water.

This breakfast is prepared in every school in a tent or booth with the quality and safety of the guaranteed production process. Serving fried noodles, eggs and vegetables are done in a safe and neat paper box. Before breakfast fried noodles were shared with the activity participants (students and teachers), the participants distributed one bottle of water and one box of milk from PT. Indofood CBP Sukses Makmur Tbk.

In the process of preparing and serving healthy breakfasts in Tangerang, Bandung, Bogor, PT Indofood CBP's team Sukses Makmur Tbk is assisted by students who are tasked with distributing food. at the time of the implementation of the student who was in charge of distributing food also played a role in conditioning class 1 and 2 when distributing breakfast.

#### **Types and techniques of data collection**

1. Healthy breakfast training and education to the teacher as facilitator teacher: this activity is carried out in each primary school carried out by the lecturer, by way of discussion, question and answer and detailed explanation about healthy breakfast education activities for elementary school students and the role of the teacher in the classroom when implementing activities.
2. Healthy breakfast education to elementary school students: this activity is carried out with the method of counseling in the classroom accompanied by balanced nutrition education media and healthy breakfast (let's go to a healthy breakfast comic). Counseling is carried out by students.
3. Healthy breakfast education for parents of grade 1 and 2 students, which begins with breakfast together in each class, this activity is carried out in each primary school in parallel with the implementation of healthy breakfast education for grades 3-6.

#### **Activity targets**

Bogor: Participants or target of this program are 1520 primary school children, 83 primary school teachers, and 81 parents, with the following details:

1. A total of 1520 primary school students are students from grade 1 to grade 6 from SDN 1 Sukamaju, SDN 6 Sukamaju, SDN 7 Sukamaju, SDN 1 Singaraja and SDN 4 Singajaya District Jonggol, Bogor Regency.
2. 83 primary school teachers were all teachers from 1 Sukamaju Elementary School, 6 Sukamaju Elementary School, 7 Sukamaju Elementary School, 1 Singajaya Elementary School and 4 Singajaya Elementary School, Jonggol District, Bogor Regency.
3. 81 parents of 1st and 2<sup>nd</sup>-grade students of Sukamaju 1 Elementary School, Jonggol District, Bogor Regency.

Tangerang: Participants of the target of this program are 1837 primary school children, 75 primary school teachers, 130 parents, with the following details: SDN Tegal KunirLor 1, SDN Tegal KunirLor 2, SDN Mauk 1, SDN Mauk 2, SDN Mauk 3, SDN Mauk 4. Bandung: Participants of the target of this program are 1356 primary school children, 63 primary school teachers, and 59 parents, with the following details: SDN 1 Soreang, SDN 2 Soreang, SDN 3 Soreang, SDN 4 Soreang, dan SDN 1 Sadu.

## **RESULT AND DISCUSSION**

### **Healthy breakfast education facilitator training**

Topics for healthy breakfast education facilitator training include: (1) the meaning and benefits of healthy breakfast, (2) breakfast problems for students, (3) unsafe snacks, (4) efforts to overcome breakfast problems, (5) alternative healthy breakfasts, (6) balanced visual and nutritional messages for students, and (7) presentations on frequently asked questions from frequently asked questions related to instant noodles. The training materials mentioned above are provided by resource persons from universities. After the presentation and discussion of the material, continued with the simulation as a facilitator of educating healthy breakfast and technical coordination on the division of tasks of facilitators and logistics activities (breakfast distribution, comics, questionnaires and goody bag).

### **Healthy breakfast education to the teacher as a breakfast facilitator**

Training and education to teachers as facilitators of healthy breakfast was carried out on the second day of each school. In the primary school the greatest responsibility lies in the hands of teacher. They have hourly contact with pupils and therefore an opportunity to explain the healthy breakfast education and to determine their nutritional needs. The teacher may gather information such as the following: student presents breakfast habits; student general state of nutrition and health; and student environment as it affects his breakfast habits. The topic of training material to the teacher are: (1) the meaning and benefits of healthy breakfast, (2) breakfast problems for students, (3) unsafe snacks, (4) efforts to overcome breakfast problems, (5) alternative healthy breakfasts, (6) balanced visual and nutritional messages for students, and (7) presentations on frequently asked questions from frequently asked questions related to instant noodles.

In addition to providing the material above, it was also explained about the role of the teacher in the implementation of healthy breakfast education on the third day, which was to accompany student facilitators in each class. In general, discussions with the teacher take a long time because of the many questions from the teacher related to nutrition, snacks, instant noodles, MSG, and lifestyle. The number of teachers trained in Tangerang region did not reach the target because some teachers attended service meetings and followed other activities assigned by the principal. On the other hand, for the Bogor and Bandung regions, the number of teachers trained as planned.

### **Healthy breakfast education to primary school students**

The implementation of elementary school students is carried out according to the plan, starting at 07.00 until 09.00 in each school. Classroom teachers who have been educated the day before accompanied the implementation of breakfast education. In addition, the teacher also helped communicate the message about balanced breakfast and nutrition from the facilitator to the students.

Breakfast education in the class begins with an introduction from each facilitator, followed by filling out a questionnaire, and then exercises balanced nutrition "jargon" and healthy breakfast "jargon" until students are familiar and memorized. After that, students were trained in how to wash their hands and were asked to queue for hand washing outside the classroom. Hand washing is done using soap and water flowing prepared by the local committee. After washing hands and praying, students eat breakfast in the form of fried Indomie, mustard vegetables, an egg, equipped with milk and drinking water. Breakfast is packed in food grade paper box packaging and distributed in an orderly manner to each class by PT. Indofood CBP Sukses Makmur Tbk.

After breakfast, the students explained the comic "let's have a healthy breakfast". Then each student is asked to read comics. Each of 3-4 students was asked to retell the contents of the comic in front of the class, the children enthusiastically submitted themselves. Repetition of jargon is carried out continuously, accompanied by songs with educational themes, local wisdom, and health. This is done, so that, the atmosphere remains cheerful and not empty. Education in the class ends with a farewell, taking pictures together and distributing the goody bag.

The number of students who received breakfast education in the Tangerang area was 1837 students. The primary school student in Bogor region as many as 1520 students and also 1356 students in the Bandung region. Based on the results of the data on the breakfast habits of the primary school students in 3 cities in West Java can be seen in the following table:

**Table 1.** Percentage of breakfast habits of primary school students

<b>Breakfast habits (%)</b>	<b>Bandung</b>	<b>Bogor</b>	<b>Tangerang</b>	<b>Total</b>
Breakfast at home	94.16	85.32	76.20	85.93
Breakfast at school	5.84	14.68	23.80	14.07

Based on Table 1, most of student has a breakfast at home, as much as 94.16% students at Bandung, 85.32% students at Bogor, and 76.20% students at Tangerang. Totally, the breakfast habits of the primary school student in West Java are already good. Factors that influence breakfast habits according to Sandercock (2010) include: children's knowledge about health and nutrition, availability of morning food at home, travel time or distance between home and school, amount of pocket money, snacking, bringing the packed meal, ideal body perception, as well as education, employment and parental income.

According to Hardinsyah (2011), full breakfast consists of a complete menu including staple food, side dishes, fruit or vegetables and drinks. Incomplete breakfast consists of: simple breakfast includes staple food and side dishes, drinks or staple food and fruit or vegetables, drinks. Very simple breakfast only staple / fruit / salad and drinks. Based on Table 2, breakfast menu is the most preferred primary school students in Bandung, if sorted as follows are plain water (53.57%), fried rice (50.00%), milk (42.86%), rice & dishes (21.43%), noodle (14.29%), yellow rice (10.71%), roti and hot tea (3.57%). In Tangerang, the most preferred breakfast menu includes are plain water (61.11%), fried rice (42.11%), uduk rice (36.84%), milk (27.78%), hot tea (11.11%), noodle (10.53%), and rice & dishes (5.26%). Breakfast menu in Bogor area tends to be less than Bandung and Tangerang. The most preferred menu when sorted is plain water (71.43%), uduk rice (57.14%), rice & dishes (42.86%), and milk (28.57%). From the data, it shows that there is no food and eating difficulties for students and their families to realize a family breakfast, they are able to provide these types of food for children's breakfast.

**Table 2.** Percentage of menu for breakfast of primary school students

<b>Menu</b>	<b>Bandung</b>	<b>Bogor</b>	<b>Tangerang</b>
Fried rice	50.00	-	42.11
Bread	3.57	-	-
Noodle	14.29	-	10.53
Yellow rice	10.71	-	-
Milk	42.86	28.57	27.78
Uduk rice	-	57.14	36.84
Hot tea	3.57	-	11.11
Rice & dishes	21.43	42.86	5.26
Plain water	53.57	71.43	61.11

### **Healthy breakfast education to parents**

Healthy breakfast education for parents is aimed at parents of 1st and 2<sup>nd</sup>-grade students at one school selected in each activity location. Selection of parents, especially mothers in healthy breakfast education because the role of mothers in the formation of breakfast habits in children is very decisive involved in providing household food (Khomsan, 2005). Topics for healthy breakfast education facilitator training include: (1) the meaning and benefits of healthy breakfast, (2) breakfast problems for students, (3) unsafe snacks, (4) efforts to overcome breakfast problems, (5) alternative healthy breakfasts, (6) balanced visual and nutritional messages for students, and (7) presentations on frequently asked questions from frequently asked questions related to instant noodles. After the presentation of the material, continued with focus group discussion.

Questions commonly asked by parents about the portion of breakfast, healthy snacks, tips for children to eat, tips for children to like vegetables, and about food safety. In answering questions, the local committee is accompanied by the central committee team. At the end of the event, each parent was also given a comic with "let's have a healthy breakfast", breakfast and a goody bag. Healthy breakfast education for parents gets a positive response, especially about: 1) breakfast problems and

snacks for students and efforts to overcome them, 2) alternative healthy breakfast, and 3) safety of instant noodles and MSG. The number of parents who received breakfast education in Tangerang area exceeded the planned amount is 130 parents. Despite that, 83 parents are involved in breakfast education in Bogor and 59 parents are involved in Bandung. In general, the implementation of healthy breakfast education activities in all primary schools goes well according to plan.

## CONCLUSION

An integrated healthy breakfast education for teacher, school children and parents in Bogor, Bandung, and Tangerang goes well according to plan. The trained teachers and parents agree to continue the healthy breakfast education program, once each semester. The children said that the design and the messages on healthy breakfast in the comics were interesting and easily understood.

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