

## Increasing maternal knowledge through counseling on the consumption of risky foods in children aged 2-10 years

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### ABSTRACT

Nutritional status of thin, short, and fat that is high enough indicates food intake that is still unbalanced. Children's food intake is influenced by diet, when food supply, physical activity, and snack habits. One of the efforts to reduce the consumption of risky foods (instant snacks) is the implementation of the IEC program (communication, education, and information). The type of research used is observational with a descriptive approach and the sampling techniques used are simple random sampling and purposive sampling. The entire study population was mothers living in Bontona hamlet, Kanreapia village, Tombolo Pao District, Gowa Regency, totalling 32 respondents. In the implementation of the program, the results of increasing maternal knowledge were obtained after counselling activities on excessive consumption of risky foods (instant snacks) in children aged 2-10 years. Through this activity, it is hoped that mothers can practice the knowledge they have in parenting, especially the practice of providing nutritious food.

**Keywords:** child; counselling; eating; nutritional status; snack

### ABSTRAK

Status gizi kurus, pendek, dan gemuk yang cukup tinggi menandakan asupan makan yang masih tidak seimbang. Asupan makan anak dipengaruhi oleh pola makan, ketika persediaan makanan, aktivitas fisik, dan kebiasaan jajan. Salah satu upaya mengurangi konsumsi makanan berisiko (jajanan instan) ialah pelaksanaan program KIE (komunikasi, edukasi, dan informasi). Jenis penelitian yang digunakan adalah observasional dengan pendekatan deskriptif dan teknik sampling yang digunakan ialah simple random sampling dan sampling purposif. Seluruh populasi penelitian adalah ibu-ibu yang tinggal di dusun Bontona, desa Kanreapia, Kecamatan Tombolo Pao, Kabupaten Gowa, yang berjumlah 32 responden. Pada pelaksanaan program diperoleh hasil peningkatan pengetahuan ibu setelah dilakukan kegiatan penyuluhan tentang konsumsi makanan berisiko (jajanan instan) secara berlebihan pada anak usia 2-10 tahun. Melalui kegiatan ini diharapkan ibu dapat mempraktekkan pengetahuan yang ia miliki dalam pola asuh anak terutama praktik pemberian makanan bergizi.

**Kata Kunci:** anak; penyuluhan; makan; status gizi; jajan

## INTRODUCTION

Childhood occurs in the age range of 2 – 10 years is an important age to pay attention to because this age greatly determines the next stage of life (Rod et al., 2020). If the child successfully fulfills his developmental tasks in this phase, then he has no difficulty facing the demands of development in the next stage (Adetya & Gina, 2022). At this age, the role of parents is very necessary in the development and growth of children, especially the role of mothers in preparing all nutritious foods and needed by children. Nutrition plays an important role in supporting children's growth in terms of physical growth and development, nervous system, and brain, as well as intelligence (Akubuilu et al., 2020; Cohen Kadosh et al., 2021). However, in reality not all mothers have sufficient knowledge and attitudes about aspects of food consumption that are risky in children aged 2-10 years.

A proportional analysis aggregated based on global data in Pakistan showed that the proportion of underweight children and adolescents was 25.1% (95% CI 17.3–33.7%); stunting 23% (95% CI 11.8–36.7%); wasting 24% (95% CI 15.2–34%); underweight 12.5% (95% CI 9.4–16.1%); overweight 11.4% (95% CI 7.2–16.3%); and obesity 6.9% (95% CI 3–12%). (Khan et al., 2022) According to the 2018 Basic Health Research Results (Riskesdas), at the age of 1-5 years Basic Health Research Data (2018) states that toddlers who experience nutritional problems are less 17.7%, short 10.2% and more nutritional 8% (Sari et al., 2021).

The prevalence of nutritional status of elementary school children aged 5-12 years according to BMI / U is 9.2% of underweight children consisting of 2.4% very thin and 6.8% thin, and the prevalence of obese children 20% (10.8% obese and 9.2% very obese). Nutritional status of thin, short, and fat that is high enough indicates food intake that is still unbalanced. The child's food intake is influenced by diet, when food supply, physical activity, snacking habits. High snacking habits will make children feel full quickly and do not want to eat, so that children's diet is not right (Garrido-Fernández et al., 2020). Habits that often appear in children are the habit of snacking foods with high calories, low fiber, and low in micronutrients, so that it can interfere with the nutritional status of children. (Purwanti et al., 2022)

Based on the Decree of the Minister of Health of the Republic of Indonesia Number 942 / Menkes / SK / VII / 2003 concerning Guidelines for Sanitary Hygiene Requirements for Hawker Food, there are several aspects regulated in the handling of snack foods, namely food handlers, equipment, water, foodstuffs, food additives, presentation and hawker facilities. Some of these aspects can affect the quality of food. (Puspita & IIm, 2021)

Related to that, it is important for mothers to have knowledge about risky food and beverages and their dangers to health. In addition, it is also important to have simple detection skills about the presence of these food additives. The hope is that with the knowledge and skills possessed by mothers, it can change behaviour and improve the nutritional status of children.

Based on this description, we conducted a research-based community service program, namely carrying out IEC (Communication, information, and education) programs for mothers in Bontona hamlet in an effort to reduce risky food consumption in children aged 2-10 years. The purpose of this activity is to increase maternal knowledge after counseling on the consumption of risky foods in children aged 2-10 years

## METHODS

The method of activity chosen is by conducting communication, information, and education through counselling activities to mothers in an effort to reduce consumption of risky foods in children aged 2-10 years in Bontona hamlet using power point media, and speech boards containing excessive consumption of risky foods (instant snacks). The type of research used is observational with a descriptive approach, and the mapping techniques used are simple random sampling and purposive sampling. This activity is aimed at Bontona hamlet mothers as child companions and frontline for children in fulfilling nutrition which was held on Sunday, October 8, 2023 in Bontona Hamlet, Kanreapia Village, Tombolo Po District, Gowa Regency which is the location of post III of PBL II students of the Public Health Study Program UIN Alauddin Makassar. In this activity, the number of participants who participated was 32 people who were mothers of children aged 2-10 years.

There are several stages of implementation in this activity, including: observation, installation of speech boards, implementation of communication, information, and education programs through counselling activities and evaluation of activities. Evaluation of activities is carried out with a minimum percentage of attendance (80%) and filling in the pre-test and post-test containing 8 questions. Questions are given regarding excessive consumption of risky foods (instant snacks). Each question with the correct answer has a score of 1 and the one with the wrong answer has a score of 0. Then proceed with data processing to find out any differences after counselling interventions using paired sample t-test.

## RESULTS AND DISCUSSION

IEC program (is a method by building communication between students and the community, especially mothers, as well as educating and providing information in an effort to reduce consumption of risky foods (instant snacks) in children aged 2-10 years. The implementation of the IEC program is a form of intervention to reduce consumption of risky foods (instant snacks) in children aged 2-10 years through counseling activities. The assets utilized in this program are facilities such as LCDs, laptops, speech boards, and power points. While the physical assets in Bontona hamlet are the homes of one of the Bontona hamlet residents which are used as a place of education, communication, and providing information to mothers regarding excessive consumption of risky foods (instant snacks) in children aged 2-10 years. As well as human resource assets (HR), namely assistance from post III and the mother of the Bontona hamlet RT.

Before the implementation of the KIE program, we first installed a speech board, then gave questionnaires in the form of pre-tests to mothers (Figure 1). Then continued by communicating with mothers, and providing information and education related to excessive consumption of risky foods (instant snacks) for children aged 2-10 years.

After the material was given to Bontona hamlet mothers, the next activity, namely the distribution of post-tests, aimed to evaluate whether respondents' knowledge increased about the consumption of risky foods (instant snacks) for children aged 2-10 years. After that, the last activity is giving prizes to respondents who are actively involved and lucky in the implementation of activities.



**Figure 1.** IEC Program Implementation

Evaluation activities start from checking data to discussing the results of pre-test and post-test questionnaires. The characteristics of respondents in the extension activities are as follows.

**Table 1.** Distribution of IEC Program Respondents

Characteristics of Respondents	Frequency (n=32)	Percentage (%)
Age		
18	3	9
19	9	28
22	11	35
25	7	22
27	2	6
Education Status		
Not Finishing Elementary School	3	9.3
Elementary School Graduation	10	31.2
Junior high school Graduation	12	37.5
Senior high school Graduation	7	22

Based on table 1 characteristics of respondents based on age given counseling in Bontona hamlet, as many as 11 (35%) respondents have the age of 35 years, and as many as 2 (6%) respondents have the age of 27 years. Meanwhile, based on education status, as many as 12 (37.5%) respondents graduated from junior high school and 3 (9.3%) respondents did not finish elementary school.

Based on the results of counseling in an effort to reduce consumption of risky foods (instant snacks) can be seen in table 2 with pre-test and post-test knowledge categories. before counseling was carried out, namely 11.7 had good knowledge and after counseling the level of knowledge of the community increased to 16.5 who had good knowledge.

Based on the results of education about the risks of instant snack consumption for children aged 2-10 years in Bontona hamlet, Kanreapia village, Tombolo Pao sub-district can be seen in amber 2 before education, sufficient knowledge at the time of pre-test was 24 (75%) respondents and when the post test was 30 (93.7%) respondents, sufficient knowledge increased by 18.7%.

From the results of the implementation of the IEC (communication, information, and education) program for efforts to reduce the consumption of risky foods (instant snacks) for children aged 2-10 years, with intervention to mothers of Bontona hamlet as child companions and child frontline in determining child nutrition. It was found that 75% of mothers had good knowledge and after counseling, the level of knowledge of the community increased to 93.7% who had good knowledge. With an average difference given 18.7%. This is in accordance with a study conducted by Sari et al., (2020) which found that there was an increase in insight for mothers in Beringin Indah Housing about the importance of choosing healthy snacks for their children and the dangers of using textile dyes in food, especially Rhodamine B. In addition, a study obtained by Fitria & Sudiarti (2021) found that there were significant differences in nutrition and health knowledge before and after counseling for mothers under five with values effectiveness of 83.3%.

Good knowledge, especially about food selection for children, is certainly important because the food consumed by children will be absorbed into the body and have a direct effect on children for growth and development (Chen & Antonelli, 2020). If parents neglect to pay attention to the best food consumed by their children, the impact that will be obtained by children is not only in the form of diseases that interfere with health at this time but will also have an impact on children in the future and can even lead to failure to grow. The knowledge of a mother as the main caregiver of the child will greatly influence and guide the attitude and behavior of a child in choosing and consuming food for himself (Wood et al., 2020). If children consume snacks well, their health will be good too. He can continue to grow and develop well until he reaches the maximum limit (Indrawati & Faridah, 2021).

**Table 2.** Pre and post test Statistical Test Results on IEC

Knowledge Score	n	Min.	Maks	Mean±SD	P-Value
Before	32	10	15	11,7±0,6	0.000
After	32	13	17	16,5±0,8	

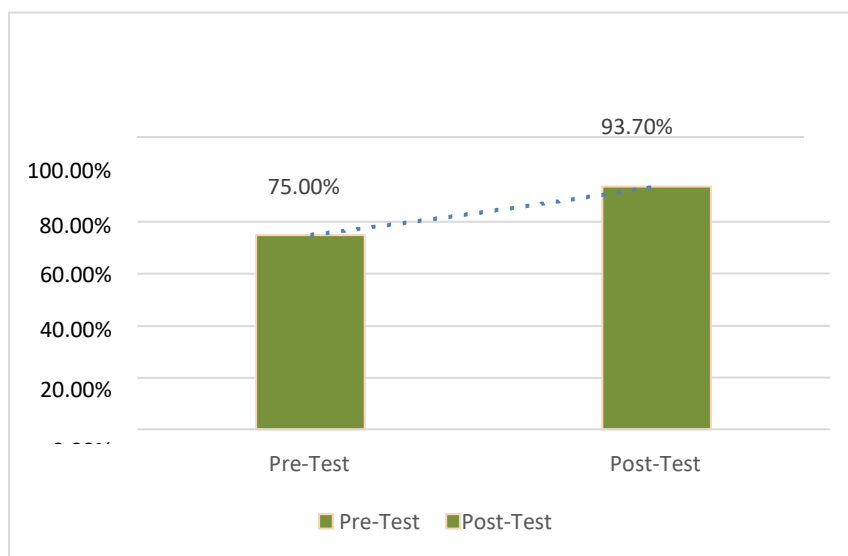


Figure 2. Mother's Knowledge Enhancement Diagram

Maternal education is fundamental to achieving good child nutrition. The level of maternal education is related to the ease of mothers in receiving information about nutrition and health from outside (Nurhayati et al., 2020). Mothers with higher levels of education will be more receptive to outside information, compared to mothers who have lower levels of education. Several studies have concluded that a mother's educational status greatly determines the quality of her care in providing food to children. Highly educated mothers will certainly be different from less-educated mothers (Trisyani et al., 2020). Given the importance of increasing maternal knowledge in providing snacks to children, the IEC (communication, information, and education) program is one of the good efforts as a health promotion medium to improve the degree of health and nutritional fulfillment of children 2-10 years old.

### CONCLUSIONS

In the implementation of the IEC program (communication, information, and education) in an effort to reduce the consumption of risky foods (instant snacks) in children aged 2-10 years. This program is aimed at Bontona hamlet mothers as child companions and the front line for children in determining child nutrition. In the implementation of the program, the results of increasing maternal knowledge were obtained after counselling activities on excessive consumption of risky foods (instant snacks) in children aged 2-10 years. Through this activity, it is hoped that mothers can practice the knowledge they have in parenting, especially the practice of providing nutritious and healthy food as an effort to improve the nutritional status and health status of children.

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