

# The Influence Of Local Food-Based Nutritional Literacy On Increasing Parents' Knowledge In Supporting The Cognitive Growth Of Primary School Age Children In Samudera District

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## ABSTRACT

Cognitive problems, which include disturbances in the processes of thinking, learning, and memory, can be a serious obstacle to a child's development. This condition can affect various aspects of a child's life, including academic achievement. Cognitive problems cause difficulties in learning and understanding information and can hinder academic achievement and make it difficult for individuals to participate in formal education. Indirectly, this is caused by a lack of nutritional knowledge. Efforts to increase knowledge can be carried out by implementing a local food-based nutrition literacy program which is carried out by providing interventional counseling, accompanied by recommendations for local food menus and discussions on local food menus so that it can increase nutritional knowledge of parents and mothers. The aim of this research is to determine the effect of local food-based nutritional literacy on increasing parental knowledge in supporting children's cognitive growth. This type of research is a pre-experiment design, one group pre test-post test. The population was 30 toddlers aged 7-12 months who experienced stunting during the October period in Puuk village, Samudra subdistrict, and a sample of 30 people. The sampling technique used total random sampling. Knowledge data was obtained using a questionnaire. The results of this research showed that from 30 samples the average knowledge score about nutrition was 6.2 and after providing nutritional literacy the score was 11.2. The conclusion of this research is that local food-based nutritional literacy can improve maternal nutritional cognition (knowledge).

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## INTRODUCTION

School age children are an asset for the future of a nation. They are the next generation who will bring change and progress. Therefore, it is very important to pay attention to their health. Health of school-aged children is a serious public health problem in Indonesia. Nutritional problems are still a serious challenge in various parts of the world, including in Indonesia. Malnutrition in elementary school (SD) children can hinder their physical growth and cognitive development. Optimal cognitive growth is very important to support learning achievement at school and future life (Rahmi, 2020)

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According to the 2018 Global Nutrition Report, the practice of choosing food ingredients among school-aged children throughout the world is still poor. In Indonesia itself, the results of Basic Health Research (Riskesmas) in 2018 show that the proportion of the 10-14 year age group has the habit of consuming risky foods. If this habit continues continuously, it will result in the risk of degenerative diseases in the future. Nutrition education can encourage students to increase their nutritional knowledge so that they can act and determine their behavior in choosing nutritious foods. The availability of food ingredients and the use of existing food is an important role to pay attention to in creating a balanced food menu.

Nutrition education or counseling is an educational approach to produce individual or community behavior that is needed to improve food and nutritional status. The hope of this effort is that people can understand the importance of food and nutrition, so they are willing to behave and act according to nutritional norms (Sambo, 2020). Parents are a reflection of their family's healthy lifestyle. Food and nutritional intake comes from mothers who are skilled and knowledgeable. Parents as the child's closest environment help choose and prepare the right food. The ability to choose food for young children is influenced by environmental factors, namely the mother. Mothers have a big role in introducing nutritious food information to young children (Hasyim, 2022).

School-aged children eat food consumed by their parents. Mothers provide examples of appropriate food choices to consume so that children can imitate and adapt them into habits. Children's behavior in consuming nutritious food is determined by the family's habits in consuming food. Parents who have low motivation to consume nutritious food have an impact on children's lack of food consumption (Sambo., 2020). Parental concern about their child's weight shows significant results in overeating behavior as an eating-stress response. Processed food production and consumption of processed food are influenced by the mother's role in providing it (Sarlis, 2018). Serving activities carried out at home can be a medium for young children to learn about nutritious food information. Serving food in the family is a strong culture that is the basis for laying the habit of consuming nutritious food (Kurniawaty, 2022)

Nutritional literacy is intended as a means of nutritional education for school-age children. Nutritional literacy carried out through playing food game applications encourages the interest of parents of children to increase nutritional knowledge (Padmadewi, 2018). Development of food literacy in elementary school aged children in the home environment, namely the practice of giving food at home by parents by paying attention to balanced nutrition and processing done by themselves and maintaining taste, serving food by paying attention to nutritional quality, menus and food served in Oklahoma family orphanages (Rahmy 2020). This research shows that there has not been much research on serving food as a medium for introducing nutritional literacy for school-aged children

Therefore, the researcher conducted a preliminary study by conducting observations and interviews. Therefore, the researcher conducted a preliminary study by conducting interviews with five parents who had toddlers aged 7-10 years, which was carried out in Puuk village, Samudra District, Kab. North Aceh. It was found from the interviews that among

the five parents, they did not understand nutritional literacy and the potential of local food, parents did not understand what balanced nutrition was, the potential of local food was very available and sufficient as a family food menu, but was not yet fully utilized as a balancing food. Therefore, it is hoped that it can maximize the provision of good nutrition for children, so that they can fulfill aspects of children's growth and development.

The growth of children by providing healthy food is very important for their physical health, because healthy food has sufficient nutrition for the child's body and the food obtained is the main source in fulfilling maximum growth and development so as to achieve complete health. Based on the description above, it can be concluded that nutritional literacy influences food serving patterns, choosing local food ingredients that are available in the village, parents must understand nutritional literacy to improve serving and feeding patterns for children. In this way, it can increase knowledge of providing healthy food by parents to meet the needs of children and families, by enriching knowledge about healthy food ingredients by using local food.

Nutritional literacy is a person's ability to search for, understand, evaluate, and use information about food and nutrition to make healthy decisions. When a person's nutritional literacy is low, especially regarding local food, several challenges and negative impacts will arise. Increasing local food-based nutritional literacy is a long-term investment in children's health and well-being. By providing the right knowledge and skills, we can help parents make healthier food choices for their families (Padmadewi, 2018)

One of the things that is implemented is nutritional counseling, a dissertation on food recommendations based on local food in the form of moringa biscuits and local food cooking demonstrations. Local food rich in protein has a very important role in supporting the growth and development of school children. Protein is a nutrient that the body really needs to build and repair body cells, including muscles, skin and hair. Apart from that, protein also plays a role in the formation of enzymes and hormones which are important for various body functions (Rahmy, 2020)

Parents' low understanding of nutritional literacy is a manifestation of lack of knowledge about nutrition. They may not know what protein, carbohydrates, vitamins or minerals are, and how these nutrients are important for the child's body. Misperceptions about healthy food. Often, healthy food is considered expensive, unpleasant, or impractical. Lack of food variety Children's food menus tend to be monotonous and dominated by processed foods. Lack of trust in local food. They may doubt the quality and safety of local food, or don't know how to process it (Daniels, 2021)

The impact on children of low parental knowledge is Stunted growth: Lack of nutrition can cause stunting, slow growth, and other health problems. Impaired cognitive development: Inadequate nutrition can affect a child's brain development and learning ability. Decreased immunity: Children -children with poor nutrition get sick more easily (Sarlis, 2022)

In implementing the provision and use of local food there are challenges in itself, namely lack of information. Parents may have difficulty getting accurate and easy to understand information about local food. Limited cooking skills. They may not know how to cook

nutritious and attractive food from local ingredients. Limited access; Sometimes, local food is difficult to access, especially in urban areas. Cost, Some parents may think that selling local food is better so they can buy modern food, because it is considered practical and liked by children (Saleh, 2023)

To overcome this problem, increasing nutritional literacy in parents is key. Parents have a central role in determining their children's eating patterns. With sufficient knowledge about nutrition, parents can provide nutritionally balanced food to support optimal growth and development of children (Astika 2023). Local food has great potential to improve community nutrition. Local food is generally more accessible, cheaper, and often contains higher levels of nutrients than processed food. Apart from that, the use of local food can also support food security and the local economy (Saputra, 2023)

Based on the results of observations made in Puuk Village, Samudra District, Kab. North Aceh. The potential of local food is very available and sufficient as a family food menu, but it has not been fully utilized as a balancing food. Therefore, it is hoped that it can maximize the provision of good nutrition for children, so that they can fulfill aspects of children's growth and development. The growth of children by providing healthy food is very important for their physical health, because healthy food has sufficient nutrition for the child's body and the food obtained is the main source in fulfilling maximum growth and development so as to achieve complete health. Based on the description above, the researcher raised the title The influence of local food-based nutritional literacy on increasing parental knowledge in supporting children's cognitive growth. In this way, it can increase the provision of healthy food by parents to meet the needs of children and families, by enriching knowledge about healthy food ingredients by using local food.

## METHOD

Pre-Experimental Design was used in this research with a One-Group Pretest-Posttest design. In this design, research results will be measured twice. Before the intervention is given (pre-test) and after the intervention is given (post-test). These two assessments were carried out to obtain a comparison of the conditions before and after. This research design is a quasi-experiment that describes changes and improvements obtained from providing actions that are expected to be effective in overcoming the problems studied. This research was carried out in Puuk village, Samudra sub-district. The population is all research subjects or objects studied. The population in the study were all parents and mothers who had school age children in October in Puuk Kemamatan Samudra village, a population of 30 people and the sample was 30 mothers' parents. The sampling technique uses total random sampling. Data collected on the knowledge of parents and mothers of school-aged children was obtained using a questionnaire. Data were processed descriptively and analytically using the Shapiro Wilk normality test and the Wilcoxon sign rank test. Data is presented in the form of narratives and tables.

## RESULTS AND DISCUSSION

Below, the results of the research will be presented in a table regarding the characteristics of parents and mothers of school-age children in Samudra sub-district

**Table 1** Characteristics of parents and mothers of school age children in Samudra sub-district

Variabel	n (30)	%
Karakteristik Ibu		
Umur Ibu (Tahun)		
<20	2	6,6
20-35	28	7,1
Pendidikan Ibu		
SD	8	25
SMP	10	20
SMA	10	20
S1	2	6,6
Pekerjaan Ibu		
PNS	0	0
IRT	23	8,6
Karakteristik anak sekolah		
> 6	8	25
7-12	19	10,5
Jenis Kelamin		
Laki-Laki	24	8,3
Perempuan	6	3,3

Table 1 shows that of the 30 samples, the majority were aged 20-35 years (6.6%) with an average age of 25 years and the lowest age was 19 years and the highest age was 35 years. Then, most of the mothers' education is high school graduates (25.7%) and a small part is a bachelor's degree, 6.6%, then for work, the majority are housewives (IRT), namely 8.6%. Then the characteristics of school-age children are based on age. the majority were in the age range < 6 years (25%), and aged < 7-12 10 5%.

Based on the results of the research above, it was found that low maternal education will have an impact on maternal knowledge. Mothers' knowledge about local food processing to support children's cognitive development is very crucial. When a mother has limited knowledge, there will be a slowdown in brain growth. Lack of nutrients needed for brain development can cause a slowdown in the child's cognitive growth and development (Aji, 2022)

**Table 2** Distribution of Local Food-based Nutritional Literacy on Nutritional Knowledge Mothers in improving children's cognitive development in Puuk village, Samudra sub-district

Pengetahuan	n	Mean (min-max)	SD (Median)
Pre Test	30	6,2 (3-8)	1,4 (5)

Pengetahuan	n	Mean (min-max)	SD (Median)
Post Test	30	11,2 (7-13)	1,7 (10)

Table 2 shows that knowledge about nutrition and local food among mothers with stunted toddlers obtained an average score of 6.2 with the lowest score being 3 and the highest being 8. Then after implementing local food-based nutritional care there was an increase in knowledge with an average score 11.2, the lowest 7 and the highest 13. Analysis of the effect of implementing nutritional care on knowledge using the Wilcoxon sign rank test, this is because after the data was tested for normality, a p value of 0.000 was obtained (the data was not normally distributed). Based on the results of the Wilcoxon sign rank test analysis, a p value of 0.000 was obtained, so it can be concluded that there is an influence of local food-based nutritional literacy on maternal nutritional knowledge in improving the cognitive level of elementary school-aged children in Puuk village, Samudra sub-district.

**Table 3** The Influence of Local Food-based Nutritional Literacy on Nutritional Knowledge

Mothers in improving children's cognitive abilities			
Pengetahuan	n	P value	
Pre Test	30		
Post Test	30	0.000	

The results of this study show that before being given nutritional care, the average score obtained by mothers was 5.2 and after being given nutritional literacy in the form of literacy, education or nutritional counseling, the recommended menu regarding nutritious food for elementary school age children was 11.2, this is shows that there has been an increase of 5 points in knowledge. The knowledge that most respondents do not understand is related to the nutritional benefits of local food which can prevent cognitive problems in children. Respondents also do not understand the causes and ways to prevent and overcome cognitive problems in school-aged children. . In general, respondents assumed that cognitive problems occurred because children were lazy, lazy about eating, after being given nutritional literacy, respondents understood that there was a delay in the development of the ability to think, learn, remember and solve problems. This can affect various aspects of a child's life, from learning at school to interacting with other people. Apart from that, after being given local food-based nutritional literacy, respondents had additional information regarding efforts to use local food to prevent cognitive problems in children.

The results of the Wilcoxon Sign Rank Test analysis showed that nutritional literacy can increase maternal nutritional knowledge. The nutritional care implemented is providing counseling and health education to mothers who have elementary school age children. Apart from that, understanding nutrition is also implemented by carrying out demonstrations of processing local food ingredients so that respondents can understand and observe directly the procedures for processing local food ingredients into additional food for school children.

Research by Setiawati et al (2022) and Zain et al (2022) suggests that the nutrition education provided can increase knowledge, a lack of nutrition education will cause many family members to experience stunting problems. Likewise, Marfuah & Kurniawati (2017) found that nutrition education interventions can increase knowledge with varying

effectiveness. Pramata's research (2019) shows that there is an influence of health education on maternal knowledge ( $p=0.000$ ) (14). Local food can increase the nutritional knowledge of mothers who have school-aged children.

## CONCLUSION

Local food-based nutritional literacy has proven effective in increasing the knowledge of parents, especially mothers, in meeting the nutritional needs of school-aged children to support their cognitive development.

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