

Socialization of "Fill My Plate" to Elementary School Children in Liukang Loe Island, Bulukumba Regency

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ABSTRACT

Eating habits in school children are formed from an early age and form the basis of children's nutritional intake patterns at a later age. The aim of this service is to increase school children's knowledge about balanced nutrition and children's skills in choosing balanced nutritious food through the socialization of "fill my plate" (in Indonesia: "isi piringku"). The target participants of this service activity are 50 elementary school children on Liukang Loe Island, Bulukumba Regency. The knowledge of the target group was assessed through pre and post-tests distributed before and after socialization. Pre-test and post test data were then analyzed using the Wilcoxon test. The results of data analysis showed that in the initial condition, the target group with sufficient knowledge of 44% increased to 68% in the condition after socialization. The Wilcoxon test results showed that there was a significant difference in knowledge level between before and after the target group received the "fill of my plate" socialization ($p=0.004 < 0.05$). The target group of elementary school children was very enthusiastic in participating in the socialization and became a good alternative in increasing students' knowledge related to portion intake and food variations.

Keywords : eating; fill my plate; feeding behavior; socialization; students

ABSTRAK

Kebiasaan makan pada kelompok anak sekolah terbentuk sejak usia dini dan membentuk dasar pola asupan gizi anak pada usia selanjutnya. Tujuan pengabdian ini adalah untuk meningkatkan pengetahuan anak sekolah tentang gizi seimbang dan keterampilan anak dalam memilih makanan bergizi seimbang melalui sosialisasi "isi piringku". Sasaran peserta kegiatan pengabdian ini adalah 50 anak sekolah dasar di Pulau Liukang Loe, Kabupaten Bulukumba. Pengetahuan kelompok sasaran dinilai melalui pre-test dan post-test yang dibagikan sebelum dan sesudah sosialisasi. Data pre-test dan post-test kemudian di analisis menggunakan uji Wilcoxon. Hasil analisis data menunjukkan pada kondisi awal, sasaran dengan pengetahuan cukup sebesar 44% meningkat menjadi 68% pada kondisi setelah sosialisasi. Hasil uji Wilcoxon menunjukkan bahwa ada perbedaan tingkat pengetahuan yang signifikan antara sebelum dan setelah kelompok sasaran menerima sosialisasi "isi piringku" ($p=0,004 < 0,05$). Kelompok sasaran usia anak sekolah dasar sangat antusias mengikuti jalannya sosialisasi dan menjadi alternatif baik dalam meningkatkan pengetahuan siswa-siswi terkait asupan porsi dan variasi makanan

Kata Kunci: makan; isi piringku; perilaku makan; sosialisasi; siswa

INTRODUCTION

The physical growth of primary school-aged children is an important indicator of their health status and well-being (Kliziene et al., 2021). At this age, children experience significant growth and development, which requires proper nutrition to support the process. Adequate nutrition affects not only physical growth but also cognitive ability, academic performance and long-term health (Norris et al., 2022).

Research has shown that undernutrition in children can lead to various health problems, including stunting, which affects a child's height relative to their age (Berhe et al., 2019; Khan et al., 2019; Li et al., 2020). Stunting affects not only physical appearance but also brain development and learning ability. According to UNICEF (2013), poor nutrition can result in decreased learning ability and academic achievement, which in turn can limit a child's future potential.

In addition, research by Black et al. (2013) emphasized the importance of good nutrition during the first 1000 days of a child's life, which covers the period from pregnancy to two years of age, as the foundation for later health and development. Although the main focus is on the first 1000 days, the primary school years remain a critical period where nutritional needs must be addressed to ensure optimal growth and development.

Nutrition intervention programs in primary schools have been shown to be effective in improving children's nutritional status and academic performance (Cohen et al., 2021; Roberts et al., 2022). A study conducted by Alcantara et al. (2024) showed that a healthy breakfast can improve concentration, memory, and learning ability of children in primary school. Therefore, a balanced nutritional intake with essential components such as protein, vitamins and minerals should be prioritized to support the physical growth and intellectual development of primary school-aged children.

The growth rate of school-age children is slow but consistent, as they continue to develop motor skills and show significant improvements in cognitive, social and emotional skills. Eating habits formed at this age, as well as food likes and dislikes, form the basis of a child's diet and nutritional intake at a later stage. Diet is the most crucial behavior that can affect a person's nutritional status. (Yuniarti et al., 2021).

Nutrition provision in this age range is often not optimal because it is influenced by various factors, especially eating habits. Wrong eating habits in school children can lead to serious nutritional problems, such as obesity for those who are overweight or undernourished and stunted for those who are undernourished. Children at school age tend to favour fast food, snacks and sugary drinks. Unhealthy eating habits in school-age children can lead to serious nutritional problems, including undernutrition, overweight and obesity (January et al., 2024).

Various parties, especially parents, must pay attention to the importance of fulfilling the nutrition of school children. During the school period, from 8 to 9 years old, children are very active in playing and running, so they need more nutrients. On the other hand, school-age children need nutrients to support their motor, cognitive and intellectual growth. Various parties should pay attention to children's nutrition issues because children's nutritional intake shows their development. Nutrition is essential for the development of a person's brain cells, which are responsible for their intelligence (Nugrahaeni et al., 2018).

Insufficient knowledge of balanced nutrition in school children will adversely affect the quality of human life. To prevent undesirable consequences, school students should be given basic knowledge about balanced nutrition and what is on my plate.



Figure 1. Pre-Test and Socialization of "Fill My Plate"

The "fill my plate" indicates the proportion of food from each food group in one plate, and should be filled with foods containing carbohydrates, proteins, vitamins and minerals. Therefore, I suggest that everyone should consume half as many vegetables (half, or fifty percent), twenty percent fruit, and half as many staple foods and side dishes.

State Elementary School 170 Liukang Loe is the only elementary school located on Liukang Loe Island, Bulukumba Regency. Based on observations in this school environment, there are many hawkers. With the proliferation of food vendors in the school environment, it is feared that children prefer snack food rather than food at home. Therefore, it is considered important to socialize the importance of balanced nutrition, portion and variety of food to school children. So that it can help children recognize healthy food for consumption. The purpose of the socialization of the "fill my plate" is to increase knowledge about balanced nutrition and children's skills in choosing balanced nutritious food through the socialization of "fill my plate".

METHODS

This activity is a counseling with a pre-and post-test design to see the effectiveness of the activity. The preparation stage of the community service location is a very important initial step to ensure the smoothness and success of the program. This process begins with an initial survey to understand the physical and social conditions of the area that will be used as a service location. Next, coordination is carried out with relevant parties, such as the local government, community leaders, and local organizations, to obtain permission and support. The service team also needs to prepare logistics which include equipment, raw materials, and other basic needs needed during the activity. The instruments used are the "fill my plate" leaflet and the "fill my plate" song issued by the Indonesian Ministry of Health. Furthermore, administrative activities through letters / permits to related parties such as addressed to the Bira Village government, Liukang Loe hamlet government, and SDN 170 Liukang Loe.

At the implementation stage, 50 elementary school children on Liukang Island were gathered at SDN 170 Liukang Loe who then attended the pre-test session (Figure 1). After the pre-test stage, all targets participated in the "fill my plate" socialization (Figure 2). Socialization was given through two media, namely through leaflet media and "fill my plate" song media. After the socialization stage, the target group was given a post test to assess the effectiveness of the socialization that had been carried out. The pre-test and post-test data were then inputted in SPSS IBM 24 and then analyzed for differences before and after socialization using the Wilcoxon Test with a 95% confidence level.

Table 1. Distribution of Target Characteristics of the Intervention

Variables	frequency (n=50)	%
Gender		
Male	18	36
Female	32	64
Age		
10-12 year	30	60
13-15 year	20	40
Father's Job		
Fisherman	45	96,2
Farmer	5	3,8
Mother's Job		
Housewife	35	70
Trader	5	10
Handicraftsman	10	20
Parents' Income (Rp)		
< 1.500.000	15	57,7
1.500.000-2.500.000	17	34,6
>2.500.000	16	7,7

RESULTS AND DISCUSSION

This socialization activity was carried out at SDN 170 Liukang Loe related to "fill my plate" which was held on May 8, 2024. The implementation of this activity was attended by 50 students, namely classes I-IV. Before providing socialization to the target group, a pre-test was first given.

Table 1 shows that the majority of the target group are female (64%), and are in the age group of 10-12 years (60%), most parents are servants and housewives and most parents have an income of <1,500,000. Table 2 shows that in the initial condition, the target group with sufficient knowledge category of 44% increased to 68% in the condition after socialization. The Wilcoxon test results show that there is a significant difference in knowledge level between before and after the target group received the socialization of "fill my plate" (p=0.004 <0.05).

The next step was to conduct the socialization of "fill my plate" through leaflet and song media. After providing socialization, the next step is to give a post-test to the target group to assess the effectiveness of the socialization that has been carried out. The results of the socialization of "fill my plate" showed that students of SDN 170 Liukang Loe, before participating in this socialization did not know the role of balanced nutrition "fill my plate" and after students received socialization, there was an increase in knowledge and in the question and answer session the students gave a positive response by being able to accept the material provided and discuss.

Table 2. Distribution of Students Based on Pre-Test and Post-Test Levels

Knowledge	Pre-Test		Post-Test		Wilcoxon Test
	n	%	n	%	
Enough	22	44	34	68	0.004
Insufficient	28	56	16	32	

These results are in line with the results of research from Vio Nita et al ((Nita & Mayangsari, 2023) which say that consumption behavior before and after education on the fill of my plate has changed knowledge. Nutrition is needed to maintain survival and provide fuel for various body processes to achieve a good quality of life. Nutrition is also considered important for maintaining health and preventing disease. Everyone should eat a varied diet that meets nutritional requirements. According to the General Guidelines for Balanced Nutrition (PUGS), a meal should consist of rice, side dishes, vegetables and fruits that are naturally valuable. This means that staple foods provide energy, side dishes provide protein and fat, and vegetables and fruit provide minerals and vitamins (Briliannita et al., 2022).

Socialization of balanced nutrition with demonstrations of the "fill my plate" carried out at SDN 170 Liukang Loe there is an increase in knowledge but in the question and answer session students are very excited and brave to come forward and answer the questions we give then their answers are correct in accordance with the socialization that researchers convey, and then researchers provide alternative songs to make it easier for students to remember balanced nutrition, and they are very enthusiastic in singing together we also call several students to come forward and lead to sing together.

The importance of socializing balanced nutrition through the "fill my plate" program is closely related to the social learning theory proposed by Bandura (2019). According to this theory, individuals learn through observation, imitation, and modeling. In the context of this socialization, students gain knowledge about balanced nutrition not only through verbal explanations, but also through demonstrations, songs, and media leaflets provided. This approach, which involves various learning media, strengthens the absorption of information in children, because children tend to understand and remember concepts taught in interactive and fun ways more easily. In addition, the use of songs as learning tools is in accordance with the principles of Howard Gardner's multiple intelligences theory, which states that each individual has different intelligences, including musical intelligence. By combining visual and musical educational elements, this socialization became more effective in increasing students' nutritional knowledge.

In addition, the increase in students' knowledge after socialization can also be attributed to the theory of health behavior change (Health Belief Model) (Green et al., 2020). This theory suggests that changes in a person's health behavior occur when they realize the benefits of a recommended health action, feel vulnerable to health risks if they do not take the action, and believe that they are able to take the action. In this study, knowledge of the importance of balanced nutrition was a key factor influencing students' awareness of the importance of maintaining health through a good diet. By understanding the role of each food group in supporting health, students are more motivated to adopt healthy eating behaviors. These results show that education through interactive and practical methods can significantly change students' knowledge and behavior towards balanced nutrition, which in turn has the potential to improve their overall quality of life.

CONCLUSIONS

The target group of elementary school children was very enthusiastic in participating in the socialization and it became a good alternative in increasing the knowledge of elementary school children regarding portion intake and food variations. This activity suggests that mothers as food managers at home continue to improve their understanding of the importance of balanced nutrition for children's health and development. Similar socialization can be held regularly in the home and school environment by involving

children, so that the knowledge gained does not only stop at socialization activities but also applied in everyday life. Mothers can create creative activities, such as cooking with children by applying the concept of “fill my plate,” so that children better understand and get used to a healthy diet. Children are also expected to actively ask and discuss with mothers about healthy food, so that the habit of choosing nutritious food independently is formed.

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