

## THE INFLUENCE OF PEER EDUCATION ON ENHANCING PARENTS MOTIVATION IN ACHIEVING BALANCED NUTRITION PROVISION

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### Abstract

*Nutritional issues among children remain a significant public health concern in Indonesia, as indicated by the high prevalence of stunting and obesity due to suboptimal fulfillment of balanced nutrition. Parental motivation plays a crucial role in ensuring the quality of children's nutritional intake, although it is often influenced by limited knowledge and inadequate support. Peer education is considered an effective strategy to enhance parental motivation by optimizing interactions among parents to share information and experiences related to the implementation of balanced nutrition practices. The purpose of this study was to analyze the effect of peer education on improving parents' motivation to fulfill balanced nutrition for elementary school students. This study was a pre-experimental design. The population consisted of parents of elementary school children in Palembang City, with a total of 20 respondents selected through purposive sampling. The intervention was conducted through peer education sessions facilitated by parents. The results of the statistical test showed a significant increase in parental motivation following the intervention, with a p-value of 0.035. Parents are encouraged to optimize their role in providing balanced dietary intake for their children by maintaining strong motivation as an effort to help prevent nutritional status problems in children.*

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### INTRODUCTION

The prevalence of nutritional problems in children continues to be a major public health issue both globally and in Indonesia. The World Health Organization (WHO) reports that malnutrition is responsible for 54% of child deaths worldwide, with 149 million children under five years old affected by stunting and 45 million by wasting in 2020 (1). In Indonesia, the situation is similarly concerning, as the 2022 Indonesia Nutrition Status Survey (SSGI) indicates that 21.6% of children under five are stunted and 7.7% are wasted (2). Furthermore, anemia affects a large number of Indonesian children, with 38% of children aged 6–59 months reported as anemic in 2019 (3). These figures emphasize the critical need for focused interventions to address malnutrition and improve the nutritional health of children globally and in Indonesia. Indonesia faces a serious double burden of malnutrition among school-aged children, with both undernutrition and rising obesity rates. These

issues affect children's health, learning, and development. Parents are key to shaping healthy eating habits, but many lack the knowledge and motivation to provide balanced nutrition. Effective community-based interventions, such as peer education, are urgently needed to support and empower parents in addressing this problem.

School-aged children, typically between 6 and 12 years old, are particularly vulnerable to nutritional health issues. Proper nutrition during this critical growth phase is essential for their physical development, cognitive function, and overall well-being. However, various nutritional problems can impede these processes. Nutritional issues in school-aged children can be broadly categorized into undernutrition and overnutrition, both of which have significant health implications. Undernutrition, characterized by deficiencies in essential nutrients like proteins, vitamins, and minerals, can lead to stunted growth, weakened immunity, and higher susceptibility to infections. Children

experiencing undernutrition often suffer from fatigue and reduced concentration, negatively impacting their academic performance. On the other hand, overnutrition, caused by excessive calorie intake and unhealthy food consumption, contributes to overweight and obesity, increasing the risk of chronic diseases such as diabetes, hypertension, and cardiovascular conditions. The rising prevalence of both undernutrition and overnutrition among children highlights the need for greater awareness and interventions to promote balanced nutrition and overall well-being (4).

Several factors contribute to nutritional problems in school-aged children, including irregular eating habits, poor dietary choices, and parental influence on feeding practices. High activity levels and inconsistent meal patterns can disrupt the balance between energy intake and nutritional needs, increasing the risk of both undernutrition and overnutrition (5). Additionally, the widespread availability of low-nutrient, high-calorie foods, such as processed snacks and sugary beverages, further exacerbates poor dietary choices (6). Another critical factor is parental involvement in feeding practices, as parents play a crucial role in shaping their children's eating behaviors and food preferences. Inadequate knowledge about balanced nutrition or a lack of structured meal planning can contribute to unhealthy eating habits in children (7). Therefore, addressing these factors through education and awareness can help improve children's overall nutritional status and well-being.

Nutritional problems among school-aged children have significant implications for both their health and academic performance. Nutrient deficiencies, whether due to undernutrition or overnutrition, can hinder physical growth, weaken the immune system, and increase susceptibility to various diseases. In the long term, overnutrition can contribute to the development of chronic conditions such as diabetes, hypertension, and cardiovascular diseases, which may persist into adulthood (8). Furthermore, imbalanced nutrition also affects cognitive function, leading to decreased concentration, memory impairment, and lower academic achievement. Children with inadequate nutritional intake tend to face challenges in understanding lessons, which negatively impacts their overall academic performance (9). Therefore, appropriate

interventions to ensure balanced nutrition are essential to support optimal growth, health, and intellectual development in children.

Parental involvement plays a fundamental role in shaping children's dietary habits and preventing nutritional problems. As primary role models, parents' eating behaviors significantly influence their children's food choices and overall nutritional intake. Research indicates that parental dietary patterns strongly impact children's eating behaviors, regardless of socio-demographic factors (10). Moreover, specific parenting practices related to food can either encourage or hinder healthy eating habits in children (11). Additionally, parental education on nutrition has been positively linked to children's food literacy, demonstrating that when parents are knowledgeable and motivated about healthy eating, their children are more likely to develop positive dietary behaviors (12). Therefore, increasing parental awareness and motivation in providing balanced nutrition is essential for fostering healthier eating habits in children and preventing nutrition-related health issues.

Studies have shown that peer education significantly enhances parents' capabilities in supporting their children's growth and overall development. Research on young mothers revealed that those who engaged in peer education programs reported better child growth outcomes compared to those who did not participate. The findings suggest that equipping parents with peer-led educational support improves their caregiving skills and positively influences their children's development (13). Additionally, peer education has proven effective across various fields, including adolescent health, where trained peer educators provide guidance, motivation, and reinforcement for making healthier lifestyle choices. This model can be adapted to parenting programs to enhance parental motivation in providing well-balanced nutrition for their children (14). By participating in peer education initiatives, parents can acquire practical knowledge and receive emotional support from others who have encountered similar challenges. This, in turn, strengthens their motivation and ability to ensure their children receive proper nutrition (15). Peer education is a strategy in which individuals with similar backgrounds or experiences exchange knowledge and offer support to encourage positive behavioral

changes within their community. Within the realm of parenting, this approach involves experienced parents mentoring and inspiring others to adopt effective child-rearing strategies, particularly in ensuring balanced nutrition. By utilizing shared experiences, peer education fosters trust and relatability, making parents more receptive to new information.

A preliminary study conducted through interview using open-ended questions about child feeding practices with twenty parents with the inclusion criterion of having children in elementary school in Palembang revealed that many parents often do not have time to prepare breakfast for their children. Instead, students are given money to buy food at school, and parents do not monitor the types of snacks their children purchase. Additionally, parents do not routinely track their children's nutritional status through height and weight measurements.

Based on this background, the researcher aims to investigate whether peer education influences parents' motivation to provide balanced meals as an effort to prevent nutritional problems in children.

**METHODS**

This research was using a quantitative approach with a pre-experimental design one-group pre-test and post-test to assess changes in motivation scores before and after the intervention and to determine the effect of the intervention on parental motivation. The respondent consisted of 20 parents who have child as an elementary student which selected through purposive sampling in the Ilir Barat District of Palembang City. Data collection was carried out using questionnaires administered before and after the intervention through a peer education approach. Peers were selected from parents with a higher educational background, preferably those with a background in health, in coordination with the school. The participants were randomly divided into two groups. The primary variable assessed was parents' motivation to implement balanced nutritional practices. Data were gathered through questionnaire on parental motivation regarding child nutrition, which had been tested for validity and reliability, was administered to parents of elementary school-aged children in

Sukarami District., and univariate analysis was performed using descriptive statistics to summarize participants' characteristics, including age, education, and occupation. For bivariate analysis, a pre-experimental one-group pre-test and post-test design was employed, with statistical analysis conducted using the Wilcoxon test to assess changes in the data. The study protocol received ethical approval from the Regional Ethics Committee for Human Research under the Health Research Review Committee, Faculty of Medicine, Sriwijaya University, Indonesia, and was registered under approval number 109-2023.

**RESULTS AND DISCUSSION**

**Table 1 Characteristic of Respondent**

No	Characteristic	f	percentage
1	Gender		
	Man	1	5
	woman	19	95
2	Employment		
	Employed	5	25
	Housewife	15	75
		20	100

Based on Table 1, the characteristics of the respondents, who are parents of elementary school students, indicate that the majority are mothers, accounting for 98%. Furthermore, the majority of respondents are homemakers, comprising 75%.

**Table 2 The Influence of Peer Education on Enhancing Parents' Motivation**

No	Post test Pretest	Low Motivation	High Motivation	f	P value
1	Low Motivator	3	10	13	0.001
2	High Motivator	0	7	7	
		3	17	20	

Based on Table 2, there is an increase in parents' motivation to provide balanced nutrition for their children, with a p-value of 0.001. The number of respondents with a high motivation increased from only 7 before the intervention to 13 after the intervention.

The findings of this study reveal that the majority of parent respondents, comprising 95%, are women or mothers. This aligns with previous research indicating that mothers continue to play a dominant role as the primary gatekeepers in childcare and nutrition management. Mothers play a crucial role in child care, particularly in ensuring adequate nutrition. Research has shown that they are primarily responsible for selecting and preparing nutritious meals for their children. The result of another study found that mothers actively engage in determining food choices and creating mealtime environments, although less attention is given to food presentation. Furthermore, maternal knowledge and skills are essential in fulfilling children's nutritional needs (16). Sufficient maternal knowledge contributes to appropriate feeding practices, which are vital for meeting children's nutritional requirements (17). Similarly with the other research, emphasized that maternal knowledge significantly influences feeding behaviors and the occurrence of picky eating among preschool-aged children. These findings underscore the critical role of mothers in shaping children's dietary habits and nutritional status, demonstrating the need for increased awareness and education regarding proper feeding practices (18).

Furthermore, the data indicate that the majority of respondents, accounting for 75%, are housewife. Research suggests that a considerable proportion of mothers responsible for childcare are stay-at-home mothers. A study by the Pew Research Center (2014) reported that the percentage of mothers who do not engage in formal employment outside the home increased to 29% in 2012. This trend indicates a shift in family dynamics, with a growing number of mothers dedicating themselves entirely to child-rearing (19). Similarly, a study published by the Institute of Education Sciences found that 36% of participating mothers identified as housewives, highlighting the substantial role of stay-at-home mothers in providing direct care for their children. These findings emphasize the importance of recognizing and supporting the contributions of stay-at-home mothers in early childhood development (20).

The study results indicate an increase in parental motivation following the peer education intervention. Prior to the intervention, 13 respondents exhibited low motivation levels.

However, after the intervention, there was a significant improvement, with the number of parents demonstrating a high level of motivation increasing from 7 respondents to 17 respondents.

Peer group interventions have been recognized as an effective approach to enhancing parental motivation in ensuring proper child nutrition. These interventions create a supportive environment where parents can exchange knowledge, share experiences, and develop strategies to improve their children's dietary habits. Through group-based learning, parents gain access to practical solutions and encouragement, leading to better nutritional outcomes for children (21). Parental involvement plays a crucial role in shaping children's dietary behaviors, as parents serve as role models and facilitators of healthy eating habits. A systematic review by Lindsay et al. (2018) indicated that interventions engaging parents in nutrition education were significantly more effective in improving children's dietary intake than those without parental participation. This highlights the importance of structured programs that incorporate parents in the promotion of balanced nutrition(22).

Peer group interventions utilize shared experiences to reinforce positive feeding practices among parents. In a study conducted by Brown et al. (2020), parents participating in peer-led dietary programs reported notable improvements in meal planning and healthier food preparation. The study emphasized that group discussions encouraged parents to implement sustainable dietary changes in their households, reinforcing the impact of peer-based nutritional education (23).

Additionally, peer group interventions address common barriers to healthy feeding, such as time constraints, limited nutritional knowledge, and challenges related to children's selective eating habits. A study by Wilson et al. (2022) found that parents involved in peer support programs demonstrated greater adherence to nutritional guidelines and exhibited increased confidence in providing balanced meals to their children. This suggests that peer interventions are instrumental in equipping parents with the necessary skills to overcome obstacles to healthy nutrition (24).

One of the key advantages of peer group interventions is the social support they offer. The encouragement and accountability from fellow parents enhance self-efficacy in maintaining healthy feeding behaviors. Research by Carter & Johnson (2019) highlighted that peer-supported parents were more likely to establish consistent dietary routines and implement healthier food choices, ultimately benefiting children's nutritional status (25).

In summary, peer group interventions play a significant role in improving parental motivation and capability in providing balanced nutrition for children. By fostering a collaborative and supportive learning environment, these interventions empower parents to adopt and maintain healthy feeding practices, thereby contributing to better nutritional outcomes for children(21).

### CONCLUSION

The results of this study demonstrate that peer education plays a crucial role in increasing parental motivation to provide nutritionally balanced and healthy meals for their children. The intervention led to a significant enhancement in parental motivation, as reflected in the increased number of parents exhibiting a high level of commitment to proper child nutrition. These findings underscore the effectiveness of peer education as an evidence-based approach to strengthening parental engagement in ensuring optimal dietary practices for children.

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