



Compliance Behavior Of Elementary School Children In Mbg Programs: A Study Of Individual And Environmental Determinants

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ABSTRACT

Nutritional problems among elementary school children remain a health challenge in Indonesia. To address this, the government launched the Free Nutritious Meal Program (MBG) in 2025 to improve nutritional status and human resource quality. This study aims to analyze factors associated with student compliance behavior in participating in the MBG Program. The study used a quantitative approach with a cross-sectional design. Data were analyzed using the Chi-Square test and Multiple Logistic Regression with a significance level of $p < 0.05$. The results showed that motivation and preferences ($p = 0.006$) and parental support ($p = 0.007$) were significantly associated with student compliance with the MBG Program. Meanwhile, nutritional knowledge ($p = 1.000$), attitudes ($p = 0.312$), MBG menu quality ($p = 0.195$), health promotion support ($p = 0.235$), and school support ($p = 0.203$) did not show significant relationships. It was concluded that the success of the MBG Program is more influenced by student motivation and parental support. Therefore, increasing the effectiveness of the program needs to be focused on strengthening student motivation, getting used to healthy eating patterns, and increasing the role of parents through collaboration with schools and health workers

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1. INTRODUCTION

Nutrition problems in elementary school children are still a health challenge in Indonesia. Imbalances in nutritional intake, both in the form of malnutrition and overnutrition, can hinder children's growth, cognitive development, learning achievement, and health. According to WHO (2024) and Riskesdas 2023, Indonesia still faces a *triple burden of malnutrition*, namely stunting, overweight/obesity, and anemia in school-age children. This condition is influenced by various factors, such as knowledge, attitudes, motivation, family environment, and school support.

In an effort to overcome this problem, the government launched the Free Nutritious Meal Program (MBG) in 2025 to improve the nutritional status of students through the provision of nutritious food in schools. This program has been implemented in various regions, including SD Kampala 162 Bonto Mate'ne, Maros Regency. However, its implementation still faces various obstacles, such as low compliance of students in consuming the food provided, limited menu variations, and lack of involvement of teachers and parents.

Various studies show that the success of nutrition programs does not only depend on the provision of food, but is also influenced by behavioral changes through health promotion. Factors such as knowledge, attitude, motivation, family support, and school environment play a role in shaping healthy eating behaviors. In addition, the use of digital media as a means of nutrition education is considered effective because it is able to increase children's understanding and motivation through the delivery of more interesting and interactive information.

However, there is still little research that develops the concept of health promotion that is integrated with the MBG Program based on the needs and determinants of nutritional behavior of elementary school children. This study



uses the Integrated Change Model (I-Change Model) as the theoretical basis that explains that behavior change is influenced by information, knowledge, attitudes, social influences, motivation, and intentions before health behaviors are formed.

Based on this description, this study aims to analyze the determinants of student compliance behavior with the Free Nutritious Meal Program (MBG) as the basis for developing a more effective and sustainable health promotion strategy in supporting the success of nutrition programs in schools

2. METHODS

This study uses a quantitative approach with a cross-sectional design at SD Kampala 162 Bonto Mate'ne, Maros Regency, in February–May 2026. The study population amounted to 101 students in grades IV, V, and VI who received the Free Nutritious Meal Program (MBG). The entire population was sampled using the total sampling technique.

Primary data was collected through a four-level Likert scale questionnaire, while secondary data was obtained from school profiles, MBG Program reports, and documentation. The variables studied included nutritional knowledge, attitudes, motivation and preferences, MBG menu quality, health promotion support, school support, parental support, and student compliance with the MBG Program.

Data were analyzed using SPSS through univariate analysis to describe respondent characteristics, bivariate with Chi-Square test to determine the relationship between variables, and multivariate using Multiple Logistic Regression to determine the most dominant factors influencing student adherence to the MBG Program. The significance level was set at $p < 0.05$.

3. RESEARCH RESULTS

A total of 101 students became respondents to the study. Based on gender, respondents were dominated by women as many as 56 students (55.4%), while men as many as 45 students (44.6%). Based on age group, the majority of respondents aged 10–11 years were 42 students (41.6%), followed by 31 students (30.7%) aged 11–12 years, and 28 students (27.7%) aged 9–10 years. Based on grade level, most of the respondents came from class V as many as 43 students (42.6%), followed by class VI as many as 31 students (30.7%), and class IV as many as 27 students (26.7%).

Bivariate Analysis

Table 2. Results of Bivariate Analysis of the Relationship between Individual Factors and Environmental Factors with Elementary School Children's Compliance in the Free Nutritious Meal Program (MBG)

Independent Variables	Statistical Test	Value p	Remarks
Nutritional Knowledge	Chi-Square	1,000	Insignificant
Attitudes towards Nutrition and MBG	Chi-Square	0,312	Insignificant

Remarks: Significant if $p < 0.05$.

Based on Table 2, the results of bivariate analysis using the Chi-Square test showed that the variables of nutrition knowledge ($p = 1.000$), attitude towards nutrition and the MBG Program ($p = 0.312$), MBG menu quality ($p = 0.195$), health promotion support ($p = 0.235$), and school support ($p = 0.203$) did not have a significant relationship with student compliance in participating in the Free Nutritious Meal Program because the overall p value > 0.05 . In contrast, the variables motivation and preferences ($p = 0.006$) and parental support ($p = 0.007$) showed a significant relationship with student adherence to the MBG Program ($p < 0.05$). These results show that students' motivation and preferences as well as the support provided by parents play an important role in increasing student adherence in participating in the Free Nutritious Meal Program.

Bivariate Analysis

Table 4. Results of Multivariate Analysis of Factors Affecting Elementary School Children's Compliance in the Free Nutritious Meal Program (MBG)

Independent Variables	Coefficin B	Value p	Exp(B) (OR)	Remarks
Motivation and Preferences	-	0,005	4,698	Signifikan
Parent Support	-	0,004	0,226	Signifikan

Description: Significant if $p < 0.05$; OR = Odds Ratio.

Based on Table 3, the results of multivariate analysis using multiple logistic regression showed that there were two variables that had a significant effect on student compliance in participating in the Free Nutritious Meal Program (MBG), namely motivation and preference ($p = 0.005$) and parental support ($p = 0.004$). The motivation and preference



variables have an Odds Ratio (Exp(B)) value of 4.698, which indicates that students with good motivation and preferences have about 4.7 times greater chance of complying with the MBG Program than students with poor motivation and preferences.

The parental support variable has an Odds Ratio (Exp(B)) value of 0.226, which shows that parental support has a significant effect on student compliance in participating in the MBG Program. Based on the results of the logistic regression, motivation and preference are the most dominant variables influencing student compliance because they have the largest Odds Ratio value among significant variables.

4. DISCUSSION

The Relationship of Knowledge to Elementary School Children's Compliance in the Free Nutritious Meal Program (MBG)

The results of the bivariate analysis showed that there was no significant relationship between nutritional knowledge and student compliance in participating in the Free Nutritious Eating Program (MBG) at SD Kampala 162 Bonto Mate'ne. This is shown by the results of the Chi-Square test with a value of $p = 1,000$ ($p > 0.05$). Although students who had good nutrition knowledge tended to have higher levels of adherence, the difference was not statistically significant. These findings show that nutritional knowledge has not been the main factor determining student adherence to the MBG Program.

Most students have understood the importance of nutritious food and its benefits for health and the learning process. However, this knowledge has not been fully realized in obedient eating behaviors. This shows that increasing knowledge alone is not enough to change behavior without the support of other factors.

According to the PRECEDE–PROCEED (Green & Kreuter) theory, knowledge is a predisposing factor in the formation of health behaviors, but behavior is also influenced by supporting and reinforcing factors, such as family support, teachers, and the school environment. This opinion is in line with Notoatmodjo, who states that knowledge is the basis for the formation of behavior, but does not automatically produce real actions.

The absence of a significant relationship can also be influenced by the characteristics of respondents who are still in elementary school age. At this age, children's behavior is more influenced by teacher supervision, habits at home, and school rules than by the knowledge they have. In addition, factors such as appetite, consumption habits, and menu variations can also affect students' compliance in consuming MBG Program food.

The results of this study are in line with several previous studies that stated that nutritional knowledge is not always directly related to school children's eating behavior. Therefore, the implementation of the MBG Program is not enough only through nutrition education, but also needs to be supported by healthy eating habits, parental involvement, teacher supervision, and a supportive school environment.

Based on the results of the study, it can be concluded that nutritional knowledge is not a factor that is significantly related to student compliance with the MBG Program. The success of the program is more influenced by other factors, especially student motivation, family support, and the role of schools in forming healthy eating habits in a sustainable manner.

The Relationship of Attitudes to Nutrition and Free Nutritious Eating (MBG) Programs with Elementary School Children's Compliance

The results of the bivariate analysis showed that there was no significant relationship between students' attitudes towards nutrition and the Free Nutritious Meal Program (MBG) and student adherence. The results of the Chi-Square test showed a value of $p = 0.312$ ($p > 0.05$), so attitude is not a factor related to student compliance in participating in the MBG Program at SD Kampala 162 Bonto Mate'ne.

Descriptively, most students have a positive attitude towards the MBG Program. They consider this program to be beneficial for health, help reduce hunger while studying, and support growth. However, this positive attitude has not been fully realized in obedience behavior, thus showing that attitude alone is not enough to encourage behavior change.

According to Notoatmodjo, attitude is a tendency to respond to an object, but it is not necessarily manifested in real actions. Similarly, according to the PRECEDE–PROCEED (Green & Kreuter) theory, attitudes are predisposing factors that need to be supported by supporting and reinforcing factors, such as adequate facilities, food quality, and the support of teachers, parents, and the school environment in order to produce behavior change.

In elementary school-age children, eating behavior is also influenced by other factors, such as food taste, eating habits at home, peer influence, and teacher supervision during the implementation of the MBG Program. This condition causes students to continue to follow the program even though they have different levels of attitudes.



The results of this study are in line with previous research that showed that positive attitudes towards healthy food are not necessarily directly related to nutritious food consumption behavior. Motivational factors, food preferences, family support, and school environment often play a greater role in shaping a child's eating behavior.

Based on the results of the study, it can be concluded that students' attitudes towards nutrition and the MBG Program are not significantly related to student compliance. Therefore, the success of the MBG Program does not only depend on the formation of positive attitudes, but also needs to be supported by increased motivation, healthy eating habits, and sustainable support for family and school.

5. CONCLUSION

Based on the results of the study, it can be concluded that parental motivation and preferences and support are significantly related to students' compliant behavior in participating in the Free Nutritious Eating Program (MBG) at SDN Kampala 162 Bonto Mate'ne. Meanwhile, nutritional knowledge, attitudes, MBG menu quality, health promotion support, and school support did not show a significant relationship. These findings suggest that the success of the MBG Program is more influenced by student motivation and parental support. Therefore, efforts to increase the effectiveness of the program need to be focused on strengthening student motivation, habituating healthy diets, and increasing the role of parents through collaboration with schools and health workers.

6. ADVICE

Based on the results of the study, schools are advised to increase the effectiveness of the Free Nutritious Eating Program (MBG) through continuous nutrition education, the provision of more varied menus according to student preferences, and the strengthening of health promotion and supervision during meal activities. Parents are expected to support the habit of healthy eating at home and motivate children to consume nutritious food. In addition, cooperation between schools, parents, health workers, and MBG Program organizers needs to continue to be improved so that the program runs more optimally. Researchers are then advised to involve a larger number of respondents, a wider research area, and add other variables, such as peer influence and family socioeconomic conditions, so as to obtain a more comprehensive picture of the factors that affect student adherence to the MBG Program.

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