



Implementation of Free Nutritious Meal Program to Promote Students' Healthy Lifestyles

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Keywords

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Abstract

This study aims to analyze the implementation and impact of the free nutritious meal program on the development of a healthy lifestyle among students at SMP Negeri 39 Semarang. This study used a mixed method approach to comprehensively understand the study, combining quantitative and qualitative approaches. Quantitative data were obtained through questionnaires distributed to students, while qualitative data were collected through observations and interviews with relevant parties. Quantitative data were analyzed using statistical tests with the help of SPSS, while qualitative data were analyzed descriptively. The results showed that the implementation of the Free Nutritious Meal (MBG) program was well-structured and well-organized, starting from the signing of the MoU to the distribution of food, which was carried out in a disciplined manner. This program had a positive impact on healthy eating habits and student discipline. The analysis showed a very strong and significant relationship between the Free Nutritious Meal (MBG) program and the development of a healthy lifestyle among students, with a correlation coefficient of 0.941. Supporting factors included school support, collaboration with SPPG, student enthusiasm, and parental support. Obstacles found included limited learning time and menu incompatibility with students' tastes. Therefore, improvements in time management, increased menu variety, and ongoing nutrition education are needed. Thus, the Free Nutritious Meal (MBG) program has a positive influence on the formation of a healthy lifestyle among students at SMP Negeri 39 Semarang.

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INTRODUCTION

In an era of increasingly developing education, Physical Education, Sports, and Health (PJOK) is an important component of the continuing education system due to its role in supporting health, fitness, and the formation of a healthy lifestyle for students. Physical education, sports, and health is a process in developing psychomotor, cognitive, and affective abilities in students that are useful as learning experiences through movement activities. In this learning material, students are directed to foster physical growth and a healthy lifestyle. In addition, optimal physical readiness can influence activities in the learning process. Thus, every individual needs to have a fit body condition, one of which is by fulfilling a balanced nutrition to be able to carry out activities or tasks optimally. For adolescents, adequate nutrition is crucial for their development, as growth is relatively rapid during this period. Adolescence is a transitional phase from childhood to adulthood, encompassing physical, psychological, and psychosocial changes (Atasasih et al., 2022). During this stage, the body requires adequate nutrition, including carbohydrates, protein, fat, minerals, vitamins, and water. These nutrients serve as a source of energy for the body and play a role in protecting and regulating the balance of bodily functions. Therefore, adopting a healthy lifestyle from an early age is crucial to optimally meet adolescents' nutritional needs. Furthermore, nutritional fulfillment is also influenced by various underlying factors, such as diet, family environment, and knowledge about the importance of a balanced diet.

One way to implement a healthy lifestyle that can support balanced nutrition is by regularly consuming fruits and vegetables. According to the balanced nutrition guidelines, people aged 10 years and over are advised to consume 3-5 servings of vegetables, equivalent to 250 grams per day, and 2-3 servings of fruit, equivalent to 150 grams per day (Purwita et al., 2018). Data from the 2018 National Basic Health Research (Riskesdas) showed that 96.85% of Indonesians aged 5-12 years did not consume enough fruits and vegetables. Meanwhile, the 2023 Indonesian Health Survey (SKI) showed that fruit and vegetable consumption in Indonesia is still far below the recommended standard. As many as 96.7% of Indonesians have not met the minimum fruit and vegetable intake recommended by the World Health Organization (WHO), which is five servings per day (Umar et al., 2024). This condition shows that fruit and vegetable consumption in adolescents needs to be increased, considering that fruit and vegetable consumption has an important role in maintaining body health because it contains various vitamins, minerals and fiber that are needed by the body, especially during adolescent growth.

A healthy lifestyle is inseparable from a regular diet. A healthy diet is a simple way to maintain physical fitness and prevent disease. Maintaining food intake and engaging in physical activity are the foundation for a healthy body. However, adolescents have been found to exhibit unhealthy eating patterns, in addition to psychological conditions such as stress, which then triggers adolescents to respond to stress by increasing consumption of unhealthy foods, such as high-energy, high-sugar, and high-saturated fat snacks (Wicaksono et al., 2023). This indicates that adolescents' awareness of the importance of maintaining a healthy diet and adopting a healthy lifestyle is still suboptimal. According to research conducted by the World Health Organization (2020), unhealthy eating patterns can contribute to an increased risk of various non-communicable diseases such as diabetes, hypertension, and obesity. Data from the 2018 Basic Health Research (Riskesdas) showed that 25.7% of adolescents aged 13-15 years and 26.9% of adolescents aged 16-18 years with stunting and very stunting nutritional status, 8.7% of adolescents aged 13-15 years and 8.1% of adolescents aged 16-18 years with thin and very thin conditions and the prevalence of overweight and obesity of 16.0% in adolescents aged 13-15 years and 13.5% in adolescents aged 16-18 years (Setyorini & Lieskusumastuti, 2020). One of them is in Semarang City, which is one of the cities with a prevalence of obesity above the prevalence of Central Java province for adolescents aged 13-15 years, namely 11.0% overweight and 4.9% obese (Fatmasari et al., 2024). Another lack of understanding of good eating patterns can trigger stunting which is increasingly worrying. Stunting has a negative impact on supporting students' mindset and physical during learning activities.

In addition to dietary issues, implementing a healthy lifestyle is also supported by regular physical activity, which plays a role in maintaining physical health, improving fitness,

and supporting optimal adolescent growth and development. However, lack of physical activity is also a factor affecting student health. Data from the WHO (2020) shows that approximately 81% of adolescents worldwide are not physically active enough, which can have long-term health impacts such as an increased risk of non-communicable diseases. Furthermore, environmental and social factors also play a role in shaping students' eating habits. According to research conducted by Atasasih (2022), family factors, access to healthy foods, and nutrition education have a significant influence on the food consumption patterns of children and adolescents.

Furthermore, healthy lifestyle behavior among adolescents remains an issue that requires significant attention in Indonesia. The Indonesian Ministry of Health (2018) revealed that most children and adolescents still have unbalanced diets, characterized by high consumption of fast food and insufficient nutritional intake of vegetables and fruit. This habit carries the risk of health problems such as obesity, malnutrition, and metabolic disorders, which can impact adolescent growth and development. Therefore, it is important for them to pay attention to factors that can support adolescent health, including a balanced diet, especially breakfast habits (Awaliyah et al., 2025). This aspect is often overlooked, but in fact, it significantly determines the quality of health in adolescents because regular nutrition will improve children's concentration in their learning process, indirectly supporting their cognitive development and academic grades at school (Wicaksono et al., 2023). Therefore, health education interventions are crucial to form healthy living habits from an early age, especially through school-based programs. In addition, education also plays an important role in efforts to increase the values of concern in forming a healthy lifestyle (Satria et al., 2016). Thus, schools have a responsibility to form healthy eating habits from an early age through breakfast so that students not only have a healthy body, but also have a better mindset in understanding the importance of long-term health. One effort in the form of a school-based program that supports the formation of healthy lifestyle patterns is the Free Nutritious Meal (MBG) program.

The existence of the Free Nutritional Meal Program that has been running in all schools in Indonesia is no exception which aims to provide nutritional needs for school children in Indonesia in order to create a healthy, intelligent, and quality generation of the nation. The Free Nutritional Meal (MBG) Program is a manifestation of the government's commitment to providing nutritional needs services for students, with the hope that this program will not only benefit children's health, but also help ease the burden on parents in meeting their children's daily nutritional needs. The Free Nutritionus Meal (MBG) program is carried out by providing healthy and balanced food at school so that it is expected to contribute to forming a healthy lifestyle for students, especially in breakfast habits, consumption of fruits and vegetables, and increasing awareness of the importance of a healthy lifestyle.

One school that has implemented the Free Nutritious Meal (MBG) program is SMP Negeri 39 Semarang. The implementation of the Free Nutritious Meal (MBG) program at SMP Negeri 39 Semarang is not only oriented towards increasing vegetable and fruit consumption among students, but also aims to form the habit of eating breakfast before learning activities begin. This habit is supported by research showing that students who regularly eat breakfast have better academic performance compared to those who skip breakfast (Anggraeni et al., 2025). Furthermore, the habit of eating breakfast before learning plays a vital role in supporting students' learning readiness, particularly in improving students' concentration, focus, and critical thinking skills during the learning process at school.

The implementation of the Free Nutritious Meal (MBG) program at smp negeri 39 semarang demonstrates the school's efforts to support students' lifestyle development. However, it is still unknown empirically whether the program has an impact on students' healthy lifestyle development at smp negeri 39 semarang. Furthermore, this study not only measures the program's impact quantitatively but also explores the program's implementation and the factors that support and hinder the Free Nutritious Meal (MBG) program in developing healthy lifestyles in students. this situation is a research gap and the basis for the importance of conducting this research. Therefore, this study is expected to provide a more comprehensive

picture of the influence of the Free Nutritious Meal (MBG) program on students' lifestyle development at SMP Negeri 39 Semarang.

METHODS

This study uses a mixed method, combining quantitative and qualitative approaches with a case study approach to comprehensively understand the effectiveness of the Free Nutritional Meals program in developing a healthy lifestyle among students at SMP Negeri 39 Semarang. This is in line with Sugiyono (2023) who explains that data obtained from combining quantitative and qualitative research methods for use in a research activity will produce more comprehensive, valid, reliable, and objective data. The population of this study was students at SMP Negeri 39 Semarang. The sample used was 146 respondents. The sampling technique in this study was carried out using non-probability sampling, namely total sampling, this technique was used to make the entire population a sample. Data collection techniques in this study include observation, interviews, questionnaires with a likert scale, and documentation. Then the questionnaire was processed by testing using SPSS. Data analysis was carried out using the interaction model of Miles Huberman and Saldana (2014), which consists of three stages: data reduction, data presentation, and drawing conclusions.

RESULTS AND DISCUSSION

Findings from research conducted on the implementation of the Free Nutritious Meal (MBG) program for a healthy lifestyle at SMP Negeri 39 Semarang. Include: Implementation of the Free Nutritious Meal (MBG) program at SMP Negeri 39 Semarang

Based on observations and interviews, it was discovered that the implementation of the Free Nutritious Meal (MBG) program at SMP Negeri 39 Semarang began with the signing of a Memorandum of Understanding (MoU) between the SPPG and the school. After reaching an agreement, a face-to-face meeting was held to discuss the technical aspects of the program and agreements regarding its implementation within the school. Once all administrative procedures and agreements were completed, the MBG program began in accordance with established regulations.

The implementation of the Free Nutritious Meal (MBG) program at SMP Negeri 39 Semarang was first carried out in September 2025. Subsequently, a coordination team was formed with teachers. Mrs. Patmiatun was appointed as the coordinator in charge of carrying out communication with the Free Nutritious Meal (MBG) or SPPG, while other teachers played a role in supervising the Free Nutritious Meal (MBG) Program distribution process and the homeroom teachers monitored the Free Nutritious Meal (MBG) program in each class. The Free Nutritious Meal (MBG) Program arrived at school at 06.30 which was then distributed to students at 07.00 WIB before learning activities began. The distribution of the Free Nutritious Meal (MBG) Program was carried out by student representatives from each class taking the Free Nutritious Meal (MBG) Program in front of the class which became the central place for collecting and returning the Free Nutritious Meal (MBG) Program boxes, accompanied by each homeroom teacher. After the Free Nutritious Meal (MBG) program was brought by student representatives to their class, it was then distributed to each student to be consumed together. The activity began with student representatives leading a prayer according to their respective beliefs, after the prayer all students began to eat while remaining in a good sitting position, silent and focused on their own food. After finishing, they bring their lunch boxes to the front of the class to be counted to ensure nothing is left behind and returned to the MBG lunch box return area. During this activity, the teacher provides assistance to ensure all MBG items are properly distributed until the MBG activity in class is complete.

The implementation of the Free Nutritious Meal (MBG) program has had a significant impact on students' habits. Initially, some students were not accustomed to eating breakfast and lacked understanding of the importance of consuming vegetables and fruit. However, through the Free Nutritious Meal (MBG) program, students were introduced to nutritious foods including vegetables, fruit, and other balanced menus. This program gradually established breakfast habits and increased students' awareness of the importance of eating nutritious foods as a source of energy before attending classes. Furthermore, this program also helped

improve discipline, particularly in terms of responsibility and time management. Students' enthusiasm for the Free Nutritious Meal (MBG) program was very high, especially for students who were not accustomed to eating breakfast or had not received optimal attention from their parents in providing breakfast. Furthermore, the variety of the Free Nutritious Meal (MBG) Program menus was also very attractive, such as katsu, spaghetti, burgers, and other nutritious menus, which helped increase students' enthusiasm for the Free Nutritious Meal (MBG) program.

The Free Nutritious Meal (MBG) program is also considered effective in raising student awareness of the importance of maintaining a nutritious diet. Students' are becoming more aware that a nutritious breakfast can provide energy and improve concentration during learning. The school hopes the Free Nutritious Meal (MBG) program will continue, as it is considered to provide various benefits, including fostering healthy lifestyle habits through breakfast, improving student discipline, and fostering awareness of the importance of nutrition for health and learning success.

The Impact of the Free Nutritional Meal (MBG) Program on Students' Healthy Lifestyles.

The results of the research from the data obtained from a sample of 146 students of SMP Negeri 39 Semarang were then processed using SPSS as follows:

Normality Test

The normality test is used to determine whether the data obtained is normally distributed or not.

Table 1. Normality Test

Variables	Kolmogorov Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Healthy lifestyle	.070	146	.080	.992	146	.546
MBG program	.072	146	.064	.989	146	.294

Based on the output results of the Kolmogorov-Smirnov test, the Sig. values for the Free Nutritious Meal (MBG) program and Healthy Lifestyle are 0.080 and 0.064 > 0.05, respectively, so it can be concluded that the data is normally distributed.

Linearity Test

The linearity test aims to determine whether two or more variables being tested have a significant linear relationship. This test is used as a prerequisite for conducting a linear correlation or linear regression test.

Table 2. Linearity Test

		Sum of Square	df	Mean Square	F	Sig.
MBG Program* Healthy lifestyle	Combined	4069.188	26	156.507	43.793	.000
	Linearity	3981.694	1	3981.694	1114.129	.000
	Deviation from linearity	87.494	25	3.500	0.979	.500

Based on the test results with SPSS output, the Sig. Deviation from Linearity value is 0.500 > 0.05, so it can be concluded that there is a linear relationship between the two variables.

Correlation Test

Correlation test is used to determine the relationship between two or more different variables. In this study, the data obtained are normally distributed so that the correlation test used is the Pearson correlation test which is used to measure the closeness of the linear relationship between two variables whose data are normally distributed. The measure used is

the correlation coefficient value between $-1 < 0 < 1$, namely if $r = -1$ perfect negative correlation, namely the correlation of the influence of variable x on y is very weak and if $r = 1$ perfect positive correlation, namely the significance value of the influence of variable x on y is very strong.

Table 3. Correlation test

Variables		Healthy Lifestyle	MBG Program
Healthy Lifestyle	Pearson Correlation	1	0.941
	Sig (2 Tailed)		0.00
MBG Program	Pearson Correlation	0.941	1
	Sig (2 Tailed)		0.00

Based on the results of the Pearson correlation test, a correlation coefficient value of 0.941 was obtained with a significance level of $0.000 < 0.05$. It can be concluded that there is a positive and significant relationship between the MBG Program and a Healthy Lifestyle. The correlation value is in the strong category indicating that the better the implementation of the Free Nutritious Meal (MBG) Program, the greater the adoption of a healthy lifestyle among students of SMP Negeri 39 Semarang.

Furthermore, in the sustainability of the Free Nutritious Meals (MBG) program at SMP Negeri 39 Semarang, several dynamics were found that were both supporting and inhibiting factors, namely strong support from the school, namely the Free Nutritious Meal (MBG) program supported by the principal, teachers and a structured coordination team. Clear division of tasks such as coordinator, homeroom teacher, supervising teacher made the program run effectively. Collaboration with the SPPG with the signing of the MoU and established communication between the school and the food provider supported the smooth distribution and quality of the menu. High student enthusiasm and participation, namely students showed a positive response, actively enjoying the menu provided. As well as support from parents, namely parents considered this program to help fulfill children's nutritional needs and support breakfast habits, especially for families who have limited time to provide breakfast. In addition, there are things that are inhibiting factors such as leftover food due to student absence, reduced learning time, and menus that do not suit students' tastes.

CONCLUSION

The implementation of the Free Nutritious Meals (MBG) program at SMP Negeri 39 Semarang went quite well with a good structure, starting with the signing of the MoU to the distribution of food to students which was carried out in a disciplined manner. This program has a very positive impact on healthy eating habits and student discipline, and shows a very strong and significant relationship between the Free Nutritious Meal (MBG) Program and the formation of a healthy lifestyle for students, with a correlation coefficient of 0.941. Supporting factors such as school support, cooperation with SPPG, student enthusiasm, and parental support greatly contributed to the success of the Free Nutritious Meals program. Meanwhile, obstacles such as student food, reduced learning time, and menus that do not suit students' tastes need to be overcome for the sustainability and effectiveness of the Free Nutritious Meal (MBG) program. Furthermore, this study emphasizes that the formation of a healthy lifestyle is very important to support students to be more enthusiastic in participating in the learning process and physical activities both at school and outside of school. The government is trying to improve student nutrition through the Free Nutritious Meal (MBG) program. SPPG and schools are advised to focus on improving and maintaining the quality of nutritious meal menus in order to improve and maintain the quality of students' healthy lifestyles which have been very good so far. In addition, improvements in time management, increased menu variety, and ongoing nutrition education are needed for students of SMP Negeri 39 Semarang. Suggestions for further research are suggested to explore other variables that can influence changes in students' healthy lifestyles in the learning and development process of students, providing deeper insights for improving students' healthy lifestyles.

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