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Perceived Benefits of the Free Nutritious Meals (MBG) Program Among Senior High School Students in Makassar City

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A B S T R A C T

This study aims to examine the perceived benefits of the Free Nutritious Meals (MBG) Program among senior high school students in Makassar City. A descriptive quantitative approach was applied using a Likert-scale questionnaire administered to 259 students who had received the program for at least three months during August–October 2025. The variables analyzed include physical benefits, academic performance, psychological well-being, eating behavior, and food quality. The findings indicate that most respondents rated the program at a moderate level, with positive impacts on energy, reduced hunger, improved concentration, and healthier eating habits. However, aspects related to taste, aroma, and food attractiveness require improvement. The study highlights the importance of enhancing meal quality to optimize program acceptance and effectiveness.

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INTRODUCTION

The issue of adolescent nutrition remains a significant global public health concern, particularly in developing countries where both undernutrition and overnutrition coexist. Adolescents require adequate nutritional intake to support rapid physical growth, cognitive development, and academic performance. However, many students still experience inadequate dietary intake due to economic constraints, unhealthy eating habits, and limited access to nutritious food (World Health Organization, 2022). In Indonesia, similar challenges persist, especially among school-aged populations, where nutritional imbalance may affect learning capacity and long-term health outcomes (Kementerian Kesehatan Republik Indonesia, 2023). This condition highlights the urgency of implementing school-based nutrition programs to improve students' dietary intake and overall well-being.

In response to these challenges, the Indonesian government introduced the Free Nutritious Meals (MBG) Program as part of its national strategy to enhance nutritional status among students. School feeding programs have been widely recognized as effective interventions to improve food security, academic outcomes, and health status among children and adolescents (Bundy et al., 2020). Previous studies indicate that such programs can reduce short-term hunger, improve concentration, and support better school attendance (Drake et al., 2021). In the Indonesian context, the MBG program aims not only to address nutritional deficiencies but also to promote healthy eating habits among students at various educational levels. Despite its strategic importance, the success of the program largely depends on how it is perceived and accepted by its beneficiaries.

Several studies have examined the effectiveness of school feeding programs from nutritional and health perspectives; however, fewer studies focus on beneficiaries' perceptions as an evaluation indicator. Perception plays a crucial role in determining program acceptance, sustainability, and behavioral outcomes (Nguyen et al., 2021). Research by Aurino et al. (2020) found that students' perceptions of meal quality significantly influence their consumption patterns and satisfaction levels. Similarly, a study by Sari and Rahman (2022) in Indonesia reported that although school feeding programs improved nutritional intake, students' acceptance varied depending on taste, presentation, and cultural preferences. These findings indicate that there is still a gap in understanding how perceived benefits influence the overall success of nutrition programs, particularly in the Indonesian context.

Furthermore, previous research often emphasizes objective outcomes such as anthropometric measurements and nutritional status, while subjective evaluations such as perceived benefits and satisfaction remain underexplored. According to Gelli et al. (2020), integrating beneficiaries' perspectives is essential for improving program design and implementation. In addition, studies focusing specifically on senior high school students are relatively limited, despite their unique developmental needs and autonomy in food choices (Neufeld et al., 2022). This gap suggests the need for research that examines not only the nutritional impact but also students' perceptions of program benefits across multiple dimensions, including physical, academic, psychological, and behavioral aspects.

Based on these considerations, this study aims to analyze the perceived benefits of the Free Nutritious Meals (MBG) Program among senior high school students in Makassar City. The study focuses on evaluating students' perceptions across several variables, including physical benefits, academic performance, psychological well-being, eating behavior, and food quality. By using a descriptive quantitative approach, this research seeks to provide a comprehensive overview of how students experience and assess the program. The findings are expected to contribute to a deeper understanding of program effectiveness from the beneficiaries' perspective.

This study also provides both theoretical and practical contributions. Theoretically, it enriches the literature on school feeding programs by incorporating perception-based evaluation, which is often overlooked in previous studies. It also supports the development of a multidimensional framework for assessing nutrition interventions among adolescents (Gelli et al., 2020). Practically, the results can serve as an evidence-based reference for policymakers and program implementers in improving the quality and acceptance of the MBG program. Enhancing aspects such as taste, presentation, and variety of meals may increase student satisfaction and program sustainability.

In addition, this research is expected to support future policy development in school-based nutrition programs, particularly in urban settings such as Makassar City. By identifying areas that require improvement, stakeholders can design more effective and culturally appropriate interventions. The study also highlights the importance of integrating nutritional, behavioral, and psychological aspects in evaluating public health programs. Ultimately, improving students' perceptions of program benefits may lead to better nutritional outcomes and stronger educational performance, contributing to long-term human resource development.

LITERATURE REVIEW

Perceived Benefit Theory

Perceived benefit theory explains that individuals evaluate a program based on the benefits they subjectively experience, which are shaped by direct experience and expectations toward the program. In the context of school nutrition programs, perceived benefits serve as an important indicator in determining program implementation success, as they are closely related to participant satisfaction and acceptance. According to Davis and Venkatesh (2021), perceived benefits significantly influence program acceptance and the sustainability of user behavior. This is relevant to the present study, which examines how students assess the benefits of the MBG program based on their experiences during program participation . Furthermore, Zhao et al. (2022) found that perceived benefits contribute to increased participation and engagement in health programs. In this study, perceived benefits are measured through several indicators, including increased energy, improved health, and enhanced learning concentration. Therefore, the higher the perceived benefits experienced by students, the greater the level of acceptance of the MBG program.

H1: *Perceived benefits of the MBG program positively influence program acceptance among students.*

School Feeding Program Theory

The school feeding program theory states that providing nutritious meals in schools can improve students' nutritional status, academic performance, and overall well-being. This program functions as a direct intervention to address malnutrition while simultaneously supporting the learning process. According to Gelli and Masset (2021), school feeding programs have been proven to significantly improve student attendance and cognitive performance. Research by Aurino and Fernandes (2023) also found that feeding programs can reduce hunger and enhance students' learning focus. This aligns with the findings of the present study, where students reported benefits such as increased energy and improved concentration after receiving MBG meals . Thus, this theory supports the notion that the MBG program has strong potential to improve learning outcomes among senior high school students.

H2: *The MBG program provides positive benefits to students' physical condition and academic performance.*

Behavioral Nutrition Theory

Behavioral nutrition theory explains that individual eating behavior is influenced by consumption experiences, social environments, and exposure to healthy foods. School-based interventions such as the MBG program play a strategic role in shaping healthy eating habits among adolescents. According to Birch and Anzman (2020), positive experiences with healthy foods during school age can shape long-term food preferences. Research by Larson et al. (2021) shows that school meal programs can reduce unhealthy food consumption and promote more balanced dietary patterns. This is consistent with the findings of this study, which indicate that the MBG program helps students reduce unhealthy snacking habits and develop healthier eating behaviors . Therefore, the MBG program not only affects nutritional intake but also contributes to behavioral change among students.

H3: The MBG program positively influences students' healthy eating behavior.

Food Acceptability and Sensory Theory

Food acceptability theory emphasizes that the success of a food program is highly dependent on the sensory acceptance of the meals provided. Factors such as taste, aroma, texture, and visual appearance play a crucial role in determining whether food is consumed or rejected. According to Delwiche (2021), the sensory quality of food directly affects satisfaction and consumption behavior. Research by Michel et al. (2022) also highlights that improvements in taste and visual presentation significantly enhance students' acceptance of feeding programs. In the present study, aspects such as taste, aroma, and appearance were rated at a moderate level, indicating the need for improvement in food quality . This suggests that although the benefits of the program are recognized, acceptance remains suboptimal when sensory quality is not fully satisfactory.

H4: *The sensory quality of MBG meals influences the level of program acceptance among students.*

Previous Research on Student Perception of Feeding Programs

Previous studies have shown that students' perceptions of feeding programs play a critical role in determining program success. According to Ahmed et al. (2020), students with positive perceptions of school meal programs tend to have higher consumption levels. Similarly, research by Ismail et al. (2022) indicates that student satisfaction with food quality is strongly correlated with participation in feeding programs. In Indonesia, Wulandari and Putri (2024) found that students' perceptions of school feeding programs are influenced by both food quality and perceived benefits. This is consistent with the findings of the present study, where most students rated the program at a moderate level, indicating that while the program is generally accepted, there is still room for improvement . Therefore, this study strengthens previous findings by providing a multidimensional analysis of perceived benefits.

H5: *Students' perceptions of MBG program quality and benefits influence their satisfaction and program acceptance.*

METHODOLOGY

Research Design and Approach

This study employed a quantitative approach with a descriptive evaluative design to examine the perceived benefits of the Free Nutritious Meals (MBG) Program among senior high school students. A quantitative design was selected as it enables systematic measurement of perceptions using structured instruments and facilitates the identification of patterns across variables (Creswell & Creswell, 2021). The evaluative approach was used to assess the program's impact from the beneficiaries' perspective, particularly in terms of satisfaction and perceived benefits. This design is widely applied in public health program evaluation where subjective responses serve as essential indicators of effectiveness (Fitzpatrick et al., 2020).

Population and Sampling Technique

The population of this study consisted of all senior high school students who were beneficiaries of the MBG program in Makassar City. The total sample included 259 students who met the predetermined inclusion criteria. A non-probability sampling technique, specifically purposive sampling, was employed to select respondents who had received the program for at least three months and were willing to participate. Students with health conditions that significantly affected dietary patterns were excluded from the study. This sampling approach is appropriate when respondents must meet specific criteria to ensure the relevance and validity of the data collected (Etikan & Bala, 2021). The selection process ensured that participants had adequate exposure to the program to provide meaningful and reliable evaluations.

Data Collection Instrument

Data were collected using a structured questionnaire based on a Likert scale, designed to measure students' perceptions across multiple dimensions, including physical benefits, academic performance, psychological well-being, eating behavior, and food quality. The questionnaire items were developed based on theoretical constructs of perceived benefits and food acceptability from previous studies and adapted to the MBG program context. Likert-scale instruments are widely used in perception-based research due to their ability to quantify subjective attitudes and opinions (Joshi et al., 2021). This instrument enabled the systematic collection of comparable data across all respondents.

Validity and Reliability Testing

Prior to data collection, the research instrument underwent validity and reliability testing to ensure accuracy and consistency of measurement. Content validity was assessed by aligning the questionnaire items with relevant theoretical frameworks and research objectives. Reliability testing was conducted using Cronbach's alpha coefficient to evaluate internal consistency. A reliable instrument ensures that the data collected are stable and consistent across different respondents (Taber, 2020). This step is essential to maintain the scientific rigor and credibility of the research findings.

Data Collection Procedure

The data collection process was conducted from August 5 to October 31, 2025, across four selected senior high schools in Makassar City. The procedure began with obtaining ethical approval (Ethical Exemption No.: 1532/M/KEPK-PTKMS/VIII/2025), followed by coordination with school authorities. Eligible respondents were informed about the purpose of the study and provided informed consent prior to participation. The questionnaires were then distributed and completed under controlled conditions to ensure consistency. All responses were documented and compiled systematically for further analysis.

Anthropometric Measurement

In addition to perception data, anthropometric measurements were conducted to assess students' nutritional status. Body Mass Index (BMI) was calculated using weight and height measurements to categorize nutritional status. For female respondents, Mid-Upper Arm Circumference (MUAC) was measured to identify chronic energy deficiency. These measurements provided supporting data to describe the nutritional condition of respondents. Anthropometric assessment is a standard method in nutrition research to evaluate population health status (Gibson, 2021).

Data Analysis Technique

The data analysis technique used in this study was descriptive statistical analysis. Data were processed using statistical software to generate frequency distributions, percentages, and categorical interpretations (good, moderate, and poor). Descriptive analysis was chosen to provide a comprehensive overview of students' perceptions without testing causal relationships. According to Field (2020), descriptive statistics are effective in summarizing large datasets and identifying patterns in survey-based research. The results were interpreted to evaluate the strengths and limitations of the MBG program from the students' perspective.

RESEARCH RESULT

Respondent Characteristics

The first stage of the descriptive analysis was to identify respondent characteristics by sex. This profile is important because it provides a basic overview of the sample selected through purposive sampling and confirms that the study involved a sufficiently diverse beneficiary group. Among the 259 respondents, 159 were female (61.38%) and 100 were male (38.62%). These findings indicate that female students constituted the majority of the participants in this study.

Table 1. Respondent Characteristics by Sex

Sex	n	%
Female	159	61.38
Male	100	38.62
Total	259	100.00

The respondent profile confirms that the evaluation of the MBG program was largely informed by female students, although both sexes were represented in the sample. Since the study aimed to obtain a general overview of beneficiaries' perceptions, this distribution remains acceptable within the descriptive evaluative framework used in the methodology.

Nutritional Status of Respondents Based on Body Mass Index

As described in the methodology, anthropometric measurements were included to provide contextual information regarding the nutritional status of the respondents. Body Mass Index (BMI) was calculated using body weight and height measurements. The results show that the largest proportion of respondents had normal nutritional status, accounting for 145 students (56.0%). However, nutritional problems were still observed at both ends of the spectrum, including severe underweight, mild underweight, mild overweight, and severe overweight categories.

Table 2. Respondents' Nutritional Status Based on Body Mass Index

Nutritional Status	n	%
Severe Underweight	30	11.6
Mild Underweight	30	11.6
Normal	145	56.0
Mild Overweight	25	9.6
Severe Overweight	29	11.2
Total	259	100.0

These findings suggest that although most beneficiaries were in the normal BMI category, a considerable proportion still experienced nutritional imbalance. This contextual result strengthens the relevance of the MBG program as a school-based nutrition intervention. In methodological terms, the inclusion of BMI data supports the evaluative purpose of the study by linking perceived program benefits to the broader nutritional condition of the beneficiaries.

Female Respondents' Nutritional Status Based on Mid-Upper Arm Circumference

For female respondents, Mid-Upper Arm Circumference (MUAC) was additionally measured to identify chronic energy deficiency. Of the 159 female respondents, 57 students (35.8%) were categorized as having chronic energy deficiency, while 102 students (64.2%) were classified as normal. This finding indicates that although the majority were in the normal range, more than one-third of female respondents still faced a nutritional vulnerability that deserves attention.

Table 3. Female Respondents' Nutritional Status Based on Mid-Upper Arm Circumference

Nutritional Status	n	%
Chronic Energy Deficiency (<23.5 cm)	57	35.8
Normal (>23.5 cm)	102	64.2
Total	159	100.0

This anthropometric evidence complements the perception-based findings by showing that the MBG program is implemented in a population where nutritional support is still needed. Thus, the methodological combination of questionnaire data and anthropometric data provides a more comprehensive evaluation of the program context.

Perceived Physical Benefits of the MBG Program

The descriptive analysis of questionnaire responses shows that the MBG program was perceived to provide meaningful physical benefits, although most responses remained within the moderate category. Regarding improved energy, 45.9% of students rated the benefit as moderate, 38.6% as good, and 15.4% as poor. In terms of delaying hunger, 45.6% rated this item as good, making it one of the strongest positive responses in the dataset, while 36.3% rated it as moderate and 18.1% as poor. Similarly, 47.9% of students rated the statement that MBG made the body healthier as moderate, 34.4% as good, and 17.8% as poor.

Table 4. Perceived Physical Benefits of the MBG Program

Variable	Good (%)	Moderate (%)	Poor (%)
MBG provides better energy	38.6	45.9	15.4
MBG delays hunger	45.6	36.3	18.1
MBG makes the body healthier	34.4	47.9	17.8

These results support H2, which states that the MBG program provides positive benefits to students' physical condition and academic performance. The physical dimension of H2 is supported descriptively because students generally perceived the program as helpful in maintaining energy, reducing hunger, and supporting health. However, because the dominant responses were mostly moderate rather than high, the strength of support should be interpreted as positive but not yet optimal. This is fully consistent with the descriptive statistical methodology used in the study, where the focus lies in identifying patterns of perceived benefit rather than estimating causal magnitude.

Perceived Academic Benefits of the MBG Program

The academic dimension of the program also produced predominantly moderate responses. For the item stating that MBG improved concentration during study, 51.0% of respondents selected the moderate category, 32.4% selected good, and 16.6% selected poor. Likewise, 53.3% rated the statement that MBG improved academic achievement as moderate, 25.5% as good, and 21.2% as poor. These findings indicate that students generally recognized academic benefits from the program, particularly in relation to concentration and school performance, although the intensity of these perceived benefits remained moderate.

Table 5. Perceived Academic Benefits of the MBG Program

Variable	Good (%)	Moderate (%)	Poor (%)
MBG improves concentration during study	32.4	51.0	16.6
MBG improves academic achievement	25.5	53.3	21.2

These results again support H2, especially the academic component of the hypothesis. Based on the descriptive evaluative approach, the evidence indicates that the MBG program contributes positively to students' learning readiness and performance. Nonetheless, the dominance of moderate responses implies that the program's academic benefit is perceived as meaningful but not yet maximized. This finding is aligned with the study objective stated in the abstract and methodology, namely to examine beneficiaries' perceived benefits rather than objective academic outcomes.

Perceived Psychological Benefits of the MBG Program

The psychological dimension was examined through students' feelings of enthusiasm, enjoyment, and self-confidence. The statement that MBG made students feel happy and motivated at school was rated moderate by 48.3% of respondents, good by 38.6%, and poor by 13.1%. The item that MBG made students more confident in front of friends and teachers was rated moderate by 53.3%, good by 22.0%, and poor by 24.7%. These findings suggest that the program may foster positive emotional experiences at school, although the confidence-related effect appears less strongly perceived than the effect on mood and motivation.

Table 6. Perceived Psychological Benefits of the MBG Program

Variable	Good (%)	Moderate (%)	Poor (%)
MBG makes students feel happy and motivated at school	38.6	48.3	13.1
MBG makes students more confident in front of friends/teachers	22.0	53.3	24.7

These results are relevant to H1 and H5. They support H1, which proposes that perceived benefits positively influence program acceptance, because positive emotional experiences are part of the perceived benefit structure. They also support H5, since psychological satisfaction contributes to broader acceptance of the program. Still, the descriptive statistics show that students' responses were centered in the moderate category, indicating that the psychological value of the program is present but could be strengthened further.

Perceived Benefits for Healthy Eating Behavior

The MBG program also showed positive implications for eating behavior. A total of 42.1% of respondents rated as good the statement that MBG helped them become accustomed to eating healthy food, while 41.3% rated it as moderate and 16.6% as poor. Similarly, 41.3% rated as good the statement that MBG reduced random or unhealthy snacking, 40.9% rated it as moderate, and 17.8% rated it as poor. These results demonstrate that the program was perceived not only as a source of meals, but also as a behavioral intervention that may help shape healthier dietary practices among students.

Table 7. Perceived Benefits for Eating Behavior

Variable	Good (%)	Moderate (%)	Poor (%)
MBG helps students become accustomed to eating healthy food	42.1	41.3	16.6
MBG reduces unhealthy snacking habits	41.3	40.9	17.8

These findings provide descriptive support for H3, which states that the MBG program positively influences students' healthy eating behavior. Compared with several other variables, these two items showed relatively strong positive responses in the good category, suggesting that the behavioral nutrition aspect of the program is one of its more visible strengths. Because the methodology used frequency and percentage distributions, the interpretation appropriately emphasizes observed response tendencies rather than inferential claims.

Perceived Food Quality and Sensory Acceptance

The evaluation of food quality revealed that respondents generally viewed the meals as acceptable, yet not highly satisfactory. When asked whether MBG meals were attractive and nutritious, 46.7% selected moderate, 34.7% selected good, and 18.5% selected poor. Concerning taste, 45.9% gave a moderate rating, 31.7% gave a good rating, and 22.4% gave a poor rating. Aroma was rated moderate by 44.0%, good by 24.7%, and poor by 31.3%. Texture was rated moderate by 48.3%, good by 23.6%, and poor by 28.2%, while color was rated moderate by 47.5%, good by 27.0%, and poor by 25.5%. Freshness received a somewhat more positive response, with 44.4% in the good category, 39.4% in the moderate category, and 16.2% in the poor category.

Table 8. Perceived Food Quality and Sensory Characteristics

Variable	Good (%)	Moderate (%)	Poor (%)
MBG is attractive and nutritious	34.7	46.7	18.5
MBG has a good taste	31.7	45.9	22.4
MBG has an appetizing aroma	24.7	44.0	31.3
MBG has an appropriate texture	23.6	48.3	28.2
MBG has an attractive color	27.0	47.5	25.5
MBG is fresh and odorless	44.4	39.4	16.2

These results support H4, which proposes that the sensory quality of MBG meals influences the level of program acceptance among students. The descriptive evidence shows that students did not reject the meals outright; instead, they mostly placed them in the moderate category. However, taste, aroma, texture, and color remain clear areas requiring improvement. In particular, aroma had one of the highest poor ratings (31.3%), indicating that sensory quality is a major determinant of incomplete acceptance. This interpretation is strongly aligned with the evaluative purpose of the methodology and with the abstract's conclusion that meal quality must be improved to optimize acceptance and effectiveness.

Perceived Sustainability and Comparative Acceptance of MBG Meals

Beyond immediate benefits, students were also asked about practical acceptability and comparative preference. Regarding the statement that MBG should be consumed immediately, 47.9% selected moderate, 29.0% selected good, and 23.2% selected poor. For the statement that MBG was not boring, 40.9% selected moderate, 30.1% selected good, and 29.0% selected poor. Most notably, when comparing MBG with school snacks, 45.9% rated it moderate, 21.2% rated it good, and 32.8% rated it poor. This last item had the highest poor rating among all perception variables, suggesting that MBG meals still compete with the sensory and hedonic appeal of commercially available school snacks.

Table 9. Program Acceptance and Comparative Preference

Variable	Good (%)	Moderate (%)	Poor (%)
MBG should be consumed immediately	29.0	47.9	23.2
MBG is not boring	30.1	40.9	29.0
MBG tastes better than school snacks	21.2	45.9	32.8

These findings are directly relevant to H1, H4, and H5. They reinforce H1 by showing that perceived benefit alone does not guarantee full program acceptance if comparative preference remains moderate or weak. They support H4 because hedonic competition with school snacks is closely tied to sensory quality. They also support H5, which states that students' perceptions of quality and benefit influence their satisfaction and acceptance of the program. In descriptive terms, the MBG program appears acceptable, but not yet competitive enough to fully surpass students' preference for other food choices.

DISCUSSION

The findings of this study indicate that the MBG program provides positive yet moderate perceived benefits among senior high school students in Makassar City. This pattern aligns with the concept of perceived benefit theory, which suggests that individuals evaluate program effectiveness based on subjective experience rather than objective outcomes. The dominance of moderate responses across variables suggests that students recognize the benefits but do not perceive them as optimal. According to Rogers and Prentice (2021), moderate perception levels often reflect partial satisfaction, where the intervention is accepted but still requires improvement to reach full effectiveness. This supports H1, indicating that perceived benefits influence program acceptance, although the strength of acceptance remains limited.

From a physical and academic perspective, the results show that the MBG program contributes to improved energy levels, reduced hunger, and enhanced concentration during learning. These findings are consistent with the school feeding theory, which emphasizes that adequate nutrition supports cognitive function and learning readiness. A study by Nkhoma et al. (2022) demonstrated that school feeding interventions significantly improve attention span and classroom engagement among adolescents. However, unlike studies that report strong positive impacts, this research found that most responses remained in the moderate category, suggesting that while benefits are present, they are not maximized. This partially supports H2 and indicates that contextual factors such

as meal quality and portion adequacy may influence the strength of perceived academic benefits.

In terms of behavioral outcomes, the MBG program appears to play an important role in promoting healthier eating habits and reducing unhealthy snacking among students. This finding is in line with behavioral nutrition theory, which highlights the importance of repeated exposure to healthy foods in shaping long-term dietary behavior. Research by Stevenson et al. (2021) found that school-based feeding programs can significantly reduce reliance on unhealthy snacks and encourage balanced diets. The relatively higher proportion of "good" responses in this dimension suggests that behavioral changes may occur more readily than perceptual satisfaction. Therefore, H3 is supported, indicating that the program effectively contributes to positive behavioral change, even when overall perception remains moderate.

Despite these positive outcomes, the study identified significant limitations in the sensory quality of the meals, particularly in terms of taste, aroma, and visual appeal. These findings are strongly aligned with food acceptability theory, which states that sensory attributes are critical determinants of food consumption and satisfaction. According to Prescott et al. (2022), sensory dissatisfaction can reduce food intake and weaken program acceptance, even when nutritional value is adequate. The relatively high percentage of negative responses regarding aroma and taste explains why the program's acceptance did not reach a high level. This supports H4 and H5, indicating that sensory quality directly affects satisfaction and acceptance, and highlights a key gap between nutritional adequacy and user preference.

Several factors may explain the moderate perception levels observed in this study, including variations in meal quality, individual taste preferences, and competition with commercially available school snacks. Additionally, the use of a descriptive quantitative design limits the ability to explore deeper psychological or contextual factors influencing perception. According to Maxwell and Reybold (2020), descriptive studies provide valuable general insights but may overlook complex interactions between variables. Another limitation is the absence of inferential statistical testing, which restricts the interpretation to descriptive support rather than causal conclusions. Future research is recommended to apply mixed-method approaches or experimental designs to better understand the determinants of program acceptance and to explore strategies for improving sensory quality and student satisfaction. Overall, this study contributes to the development of a more comprehensive evaluation framework by integrating nutritional, behavioral, and perceptual dimensions in assessing school feeding programs.

CONCLUSIONS AND RECOMMENDATIONS

This study concludes that the Free Nutritious Meals (MBG) Program provides positive yet moderate perceived benefits among senior high school students in Makassar City, particularly in improving energy, reducing hunger, supporting concentration, and promoting healthier eating habits. However, the program's effectiveness is constrained by moderate acceptance levels, mainly influenced by sensory aspects such as taste, aroma, and visual appeal. Therefore, it is recommended that policymakers and program implementers enhance meal quality, diversify menus, and improve sensory characteristics to increase student satisfaction and program sustainability. Future research should employ mixed-method approaches or inferential analysis to explore deeper behavioral and contextual factors influencing program acceptance and effectiveness.

ADVANCED RESEARCH

This study has several limitations, including the use of a descriptive quantitative design that limits causal interpretation and reliance on self-reported data, which may introduce response bias. Additionally, the sample was restricted to four schools in Makassar City, limiting generalizability to broader populations. Future research is recommended to apply mixed-method or experimental designs to explore causal relationships and deeper behavioral factors influencing program acceptance. Further studies should also examine long-term impacts of the MBG program on nutritional status and academic outcomes, as well as incorporate sensory evaluation improvements to enhance program effectiveness.

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