

The Relationship of Fast Food Consumption Patterns with the Incidence of Obesity in School-Age Children in SDN 27 South Cities Gorontalo City

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ABSTRACT

The problem of obesity in school-age children is still a nutritional problem that needs attention because it can have an impact on children's health and growth. One of the factors that is suspected to be related is the consumption pattern of fast food that is high in calories, fat, sugar, and sodium, so that there is a risk of increasing the incidence of obesity. This study aims to determine the relationship between fast food consumption patterns and the incidence of obesity in school-age children at SDN 27 Kota Selatan, Gorontalo City. This study uses a quantitative design with a cross-sectional approach. The sample totaled 151 respondents with a total sampling technique. The instruments were in the form of a questionnaire on fast food consumption patterns and anthropometric measurements of body weight and height to determine nutritional status. Data analysis using the Chi-Square test. The results showed that most of the respondents had fast food consumption patterns in the frequent category as many as 78 respondents (51.7%) and the rare category as many as 64 respondents (42.4%). Based on nutritional status, 78 respondents (51.7%) were in the obesity category. The results of the Chi-Square test showed that there was a significant relationship between fast food consumption patterns and the incidence of obesity with a p-value = 0.000 ($p < 0.05$). The conclusion of the study shows that there is a relationship between fast food consumption patterns and the incidence of obesity in school-age children, so it is hoped that these results can be educational material for health workers in preventing obesity through improving healthy diets in children and strengthening the role of parents in limiting fast food consumption and forming healthy eating habits from an early age in the family and school environment.

INTRODUCTION

School-age children are an age group that is in the optimal phase of growth and development, both from physical, cognitive, social, and emotional aspects. During this period, the need for energy and nutrients increases along with learning activities and the rapid development of the body. An imbalance between energy intake and energy expenditure over a long period of time can cause nutritional problems, one of which is obesity (Anwar & Nuzliah, 2022; Zakiyah et al., 2024).

Obesity is a condition of excessive accumulation of body fat due to an imbalance between incoming energy and energy used by the body. This condition not only has an impact on weight gain, but can also increase the risk of various chronic diseases such as hypertension, diabetes mellitus, cardiovascular disease, and psychosocial disorders in children (Tiara, 2020; Singh et al., 2025). In addition, obesity in children can reduce the quality of life, interfere with physical and motor development, and increase the risk of obesity in adulthood (Saraswati et al., 2021).

Based on the latest data from the World Health Organization (WHO), the prevalence of obesity in children aged 5–19 years globally has increased significantly. In 1990, the prevalence of obesity in this age group was only

2%, but by 2022 it had increased to 8%, which is equivalent to about 160 million children and adolescents experiencing obesity. Although specific data on the prevalence of obesity among primary school-age children in Indonesia are not available in WHO publications, this global trend reflects the increase in childhood obesity in various countries, including Indonesia (Zhang et al., 2024).

Based on the latest data from the 2022 Indonesian Nutrition Status Study (SSGI), which is part of the Basic Health Research Survey (Riskesdas), the prevalence of obesity in children aged 5–12 years in Indonesia is as Obesity: 9.2%. Thus, about 1 in 5 children aged 5–12 years in Indonesia are overweight or obese. This figure represents a significant increase compared to previous data. Based on the latest data from the 2023 Indonesian Health Survey (SKI), the prevalence of obesity in children aged 5–12 years in Indonesia reaches 10.8%, with 9.2% of them being obese (Health Development Policy Agency of the Ministry of Health of the Republic of Indonesia, 2022).

According to data from the Gorontalo Provincial Health Office in 2022, the results of student health screening show that there are variations in obesity cases in elementary school children in each region. Gorontalo City is recorded as the area with the highest obesity rate, namely out of 2,848 students examined, there are 124 children who are obese. In contrast, Boalemo Regency occupies the lowest position, with 19 obese children out of a total of 1,740 students netted. The data illustrates that the problem of childhood obesity is still a concern in Gorontalo Province, despite the difference in the number of cases between districts/cities (Sandalayuk et al., 2024).

Based on data obtained through the nutrition sector of the Gorontalo Provincial Health Office, the incidence of obesity in children is highest in the province, namely in Gorontalo City with a figure of 7.6% in 2023, the incidence of obesity in Gorontalo Province will increase by 3% from 3.4% and to 4.4% in 2023 (Health Office, 2023).

Obesity has an impact on children's motor development where physical and motor development is a process of child growth and development where the structural and functional abilities (skills) of the body are more complex in regular and predictable patterns, such as children's body movements (Fajzrina & Diana, 2022).

Obesity is a condition in which excessive fat accumulation is found in a person's body. The determinant of a person experiencing obesity can use the body mass index (BMI), which is a comparison of weight in kilograms and height squared. Obesity is not only found in adulthood, but also in children (Norlita & Oktavia, 2024).

Fast food consumption patterns is the pattern or tendency of individual and group behavior in choosing, consuming, and repeating fast food purchases, including the frequency, type of food, motivation, and social, economic, and environmental factors that affect it. This pattern illustrates how Fast Food It is part of the daily lifestyle, related to the perception of taste, ease of access, price, promotion, and the habit of eating with friends or family. Fast food consumption patterns or fast food consumption patterns are the behavior of consuming unhealthy foods that are fast in their presentation and if not limited in consumption Fast Food will cause obesity (Sumiyati et al., 2022).

Previous research has also confirmed that fast food consumption is an important factor in increasing the risk of obesity. A study titled "The Relationship between Fast Food Consumption and Sleep Quality to the Incidence of Student Obesity in Indonesian Children's Junior High School in 2024" shows that fast food consumption has a significant relationship with the incidence of obesity. Through the Chi-Square test, $p\text{-value} = 0.000$ ($p < 0.005$) was obtained, which indicates a significant relationship between the frequency of fast food consumption and the risk of obesity. These findings further confirm that uncontrolled fast food consumption patterns can worsen children's nutritional status. (Faisal et al., 2025)

According to Riskesdas data in 2013, the prevalence of nutritional status due to fast food consumption in children in Indonesia is 10.8%. Fast food consumption behavior is influenced by several factors, including knowledge and attitudes. In addition, environmental factors such as peer influence, fast food advertising, and the availability of fast food that is increasingly accessible also play a role in increasing consumption. This consumption pattern, if not balanced with sufficient physical activity, can trigger various health problems, including obesity and metabolic diseases in the future (Susanti & Indrawati, 2023).

Some local studies also support these findings. For example, a study conducted at SDN 13 Telaga Biru, Gorontalo Regency, in 2023 showed that 10 students were obese. The Gorontalo Provincial Government has implemented an early detection program. By 2024, the achievement of early detection of obesity in Gorontalo will reach 83%, although it is still below the national target of 90%. Meanwhile, a study at three elementary schools in Gorontalo City in the same year found that 28.8% of children were obese (Abas et al., 2024).

Based on a preliminary study conducted at SDN 27 Kota Selatan Gorontalo City, information was obtained that most students consumed fast food more than three times a week. In addition, it was found that a number of students had an obese nutritional status based on the results of anthropometric measurements. This condition shows a high tendency to consume fast food in children which has the potential to increase the risk of obesity. However, the relationship between fast food consumption patterns and the incidence of obesity in school-age children at SDN 27 Kota Selatan, Gorontalo City, has not been specifically studied.

Based on this background description, the researcher is interested in conducting more in-depth research on "The Relationship between Fast Food Consumption Patterns and the Incidence of Obesity in School-Age Children at SDN 27 Kota Selatan, Gorontalo City."

RESEARCH METHODS

This research was carried out at SDN 27 in the southern city of Gorontalo City on March 30-May 5, 2026. This type of research is a quantitative research using a cross sectional research design. The sampling technique used Purposive Sampling using the slovin formula, which was as many as 151 respondents. This research instrument used a questionnaire of fast food consumption parents and an anthropometric observation sheet.

RESEARCH RESULTS

Respondent Characteristics

Respondent characteristics are a description of the general conditions or characteristics of the research subject which includes demographic aspects and other variables relevant to the research (Irwan, 2022). In this study, the characteristics of the respondents included age, class, gender, weight and height.

Characteristics of Respondents by Age

Table 1. Frequency distribution of respondents by age.

Yes	Age	n	%
1	10 years	61	40,4
2	11 years old	51	33,8
3	12 years	38	25,2
4	13 years	1	7
	Total	151	100

Source: Primary Data, 2026.

Based on Table 1, the frequency of respondents' age characteristics showed variation. The age of 10 years was 61 respondents (40.4%), the age of 11 years there were 51 respondents (33.8%), the age of 12 years there were 38 respondents (25.2%), and the age of 13 years there were 1 (7%) of the respondents.

Characteristics of respondents by class.

Table 2. Frequency distribution of respondents by class.

Yes	Classes	N	%
1	Grade 4	59	39,1
2	Grade 5	54	35,8
3	Grade 6	38	25,2
	Total	151	100

Source: Primary Data, 2026.

Based on Table 2, the distribution of respondent frequencies by class shows that most of the respondents are in class IV, namely 59 respondents (39.1%), followed by class V as many as 54 respondents (35.8%), and class VI as many as 38 respondents (25.2%)

Characteristics of respondents by gender.

Table 3. Distribution of respondent frequencies by gender.

No.	Gender	n	%
1.	Men – men	65	43,0
2.	Women	85	56,3
	Total	151	100

Source: Primary Data, 2026.

Based on Table 3, the frequency distribution of respondents by gender shows that most of the respondents are male, namely 85 respondents (56.3%), while female respondents are 65 respondents (43.0%).

Characteristics of respondents based on weight

Table 4. Frequency distribution of respondents by weight.

No.	Weight	n	%
1.	<30 kg	40	26,5
2.	30-49 kg	73	48,3
3.	>50 kg	38	25,2
	Total	151	100

Based on Table 4, the frequency distribution of respondents by weight shows that most respondents have a body weight <30 kg is as much as 40 respondents (26,5%), followed by respondents with a body weight of 30-49 kg as much as 73 respondents (48.3%), and weight >50 kg as many as 38 respondents (25.2%).

Respondent characteristics based on height.

Table 5 Frequency distribution of respondents by height.

No.	Height	n	%
1.	<130 cm	43	28,5
2.	130-144 cm	93	61,6
3.	>145 cm	15	9,9
	Total	151	100

Source: Primary Data, 2026

Based on Table 5, the distribution of respondent frequencies based on height shows that most of the respondents have a height of <130 cm, which is 43 respondents (28.5%), followed by a height of 130-144 cm as many as 93 respondents (61.6%), and a height of >145 cm as many as 15 respondents (9.9%).

Univariate Analysis

The univariate analysis aims to describe the frequency and percentage distribution of each study variable, namely fast food consumption patterns as independent variables and obesity incidence as dependent variables

Distribution of Fast Food Consumption Patterns Frequency in School-Age Children at SDN 27 Kota Selatan, Gorontalo City.

Table 6. Frequency Distribution of Fast Food Consumption Patterns in School-Age Children at SDN 27 South City, Gorontalo City

No.	Categories	N	%
1.	Never	5	3,3
2.	Rare	64	42,4
3.	Sometimes	4	2,6
4.	Frequent	78	51,7
	Total	151	100

Source: Primary Data, 2026.

Based on Table 6, it shows that the distribution of Fast Food Consumption Patterns among school-age children at SDN 27 Kota Selatan, Gorontalo City, is mostly in the frequent category as many as 78 respondents (51.7%), the infrequent category as many as 64 respondents (42.4%), the occasional category as many as 4 respondents (2.6%), and the never category as many as 5 respondents (3.3%).

Distribution of the Frequency of Obesity Incidence in School-Age Children at SDN 27 South City, Gorontalo City.

Table 7. Distribution of the Frequency of Obesity Incidence in School-Age Children at SDN 27 South City, Gorontalo City.

No.	Status	n	%
1.	Less weight	5	3,3
2.	Normal	64	42,4
3.	Overweight	4	2,6
4.	Obesity	78	51,7
	Total	151	100

Source: Primary Data, 2026.

Based on Table 7, it shows that the distribution of obesity incidence in school-age children at SDN 27 Kota Selatan, Gorontalo City, most of the respondents were in the obesity category as many as 78 respondents (51.7%), the normal category as many as 64 respondents (42.4%), the overweight category as many as 4 respondents (2.6%), and the underweight category as many as 5 respondents (3.3%).

Bivariate Analysis**The Relationship between Fast Food Consumption Patterns and the Incidence of Obesity in School-Age Children at SDN 27 Kota Selatan, Gorontalo City**

Table 8. The Relationship between Fast Food Consumption Patterns and the Incidence of Obesity in School-Age Children at SDN 27 Kota Selatan, Gorontalo City

Tabel 4.8 Hubungan *Fast Food Consumption Patterns* Dengan Kejadian Obesitas Pada Anak Usia Sekolah Di SDN 27 Kota Selatan Kota Gorontalo

Pola konsumsi <i>fast food</i>	Berat badan kurang	Normal	Kelebihan bobot	Obesitas	Total	P value
Tidak pernah	5	0	0	0	5	0,000
Jarang	0	64	0	0	64	
Kadang	0	0	4	0	4	
sering	0	0	0	78	78	
Total	5	64	4	78	151	

Sumber : Data primer, 2026/

Source: Primary Data, 2026.

Based on Table 8, the results of the Chi-Square test showed a value of $p = 0.000$ ($p < 0.05$), so it can be concluded that there is a significant relationship between fast food consumption patterns and the incidence of obesity in school-age children at SDN 27 Kota Selatan, Gorontalo City.

DISCUSSION**Fast Food Consumption Patterns in School-Age Children at SDN 27 South City, Gorontalo City.**

Based on the results of the research that has been conducted, the high category of often 78 respondents (51.7%) can be seen from the results of questionnaire research which shows that children tend to consume fast food more than several times a week. School-age children tend to like fast food because it has a savory, sweet, and appealing taste to children, as well as its quick and practical presentation. In addition, fast food is also often used as an option during school breaks and after school because it is easy to get in the surrounding environment. These repetitive consumption habits cause children to choose fast food more often than homemade food or other healthy foods.

According to the Indonesian Ministry of Health (2022), the consumption of high-energy foods that are not balanced with physical activity can cause body fat accumulation thereby increasing the risk of overweight and obesity. According to the energy imbalance theory, obesity occurs when the intake of energy is greater than the energy expended by the body. Fast food generally has a high energy density so repeated consumption in the long term can lead to the accumulation of body fat. In addition, snack habits, peer influence, easy access to fast food, and the surrounding environment also affect the high consumption of fast food in school-age children.

The results of this study are in line with research conducted by Eni Rahmawati (2024) which states that the consumption of high-calorie foods, including fast food, significantly increases the risk of obesity in children ($p < 0.05$). In addition, the study also confirmed that the high frequency of fast food consumption contributes to an increase in Body Mass Index (BMI) in children. In line with that, research by Herliana et al. (2022) also shows that most children who are obese are children who often consume fast food, with the results of statistical tests showing a significant relationship ($p\text{-value} = 0.028$). This reinforces that the high frequency of fast food consumption is closely related to the incidence of obesity in school-age children.

The researcher assumes that the high consumption of fast food in this category is influenced by a lack of nutrition education, uncontrolled snacking habits, and the lack of parental role in supervising children's diets.

In addition, based on the results of the research that has been conducted, it was found that the category of infrequent fast food consumption was 69 respondents (45.7%). These results can be seen from the questionnaire answers which showed that some respondents only consumed fast food less than once a week and did not make fast food the main daily meal. Some children also eat food provided at home more often than buying fast food outside. This condition shows that respondents still have a relatively low fast food consumption pattern.

According to Trisna (2023), limiting fast food consumption is one of the important efforts in maintaining children's nutritional status and health. Diets with low consumption of fast food tend to be healthier because they allow children to obtain a more balanced nutritional intake. In addition, according to Kartika et al. (2022), infrequent consumption of fast food can reduce exposure to saturated fat, sugar, and excess sodium intake which is generally found in fast food. Fast food usually contains high energy but low in fiber and important micronutrients

so that if consumed continuously it can increase the risk of being overweight and obese.

The results of this study are in line with the research conducted by Nimrha Faisal, Muh. Khidri Alwi, & Septiyanti (2024) who stated that there was a significant relationship between fast food consumption and the incidence of obesity ($p = 0.000$), where respondents with lower fast food consumption tended to have a smaller risk of obesity. In addition, research by Eni Rahmawati (2024) also confirms that a healthier diet, with a low frequency of fast food consumption, can help reduce the risk of obesity in school-age children. This shows that the less frequent the consumption of fast food, the better the nutritional status of children.

The researchers assume that the category is rarely influenced by eating habits at home, the role of parents in providing healthy food, and education about the importance of balanced nutrition.

Based on the results of the research that has been conducted, it was found that the category of fast food consumption has never been as many as 5 respondents (3.3%). These results can be seen from the questionnaire answers which show that a small percentage of respondents do not consume fast food or are very rarely exposed to fast food consumption in daily life. Children in this category tend to consume food provided at home more often and do not make fast food a consumption option. This condition shows that a small percentage of respondents have a healthier and more controlled food consumption pattern.

According to Trisna (2023), low fast food consumption can help maintain a balance in children's nutritional status because children are more likely to get complete nutritional intake from more diverse and balanced home foods. Limiting fast food consumption can also reduce the risk of overweight and obesity. In addition, according to the Ministry of Health of the Republic of Indonesia (2022), a healthy diet for school-age children is recommended through the consumption of balanced nutritious foods consisting of carbohydrates, protein, healthy fats, vitamins, minerals, and enough fiber. Children who eat more often home food tend to have a better quality of nutritional intake than children who are used to eating fast food. Food provided at home is also easier to control in terms of nutritional content, hygiene, and food portions so that it can help maintain optimal growth and development of children.

The results of this study are in line with research by Eni Rahmawati (2024) which states that children with a low frequency of fast food consumption have a smaller risk of obesity than children who often consume fast food. The study shows that healthy consumption patterns play a role in maintaining the nutritional status of school-age children.

The researchers' assumption is that the category is never influenced by eating habits at home, parental supervision of children's diet, and the existence of family understanding of the importance of healthy food consumption.

Based on the results of the research that has been conducted, it was found that the category of fast food consumption is sometimes as many as 4 respondents (2.6%). The results show that only a small percentage of respondents consume fast food about 1-2 times a week. Most respondents tend to be in two different consumption patterns, namely rarely consuming fast food or often consuming fast food. This condition causes the number of respondents in the category to sometimes be the least compared to other categories.

According to Dewitasari et al. (2025), the consumption of fast food in large quantities is not excessive if it is balanced with balanced nutritious food consumption and sufficient physical activity. Consumption patterns like this can help maintain a balance between energy needs and food intake. In addition, the theory of energy balance states that a person's nutritional status is influenced by the balance between the energy that enters through food and the energy that the body uses for activities.

The results of this study are in line with research by Mulyat et al. (2020) which stated that diet has a significant relationship with the incidence of obesity in school children with a p -value = 0.000 ($p < 0.05$). In addition, research by Tania Kanesa (2023) shows that fast food consumption that is not excessive and supported by good nutritional knowledge can help maintain normal nutritional status in children.

The researchers assume that respondents in the category sometimes have better parental supervision, the habit of bringing provisions from home, and an understanding of the importance of a healthy diet.

The incidence of obesity in school-age children at SDN 27 Kota Selatan, Gorontalo City.

Based on the results of the research that has been conducted, it was obtained that the obesity category is the highest category, namely 78 respondents (51.7%). The results showed that most of the respondents experienced excess body fat accumulation which was characterized by weight gain beyond the normal limit. The high rate of obesity in school-age children can be influenced by high-calorie food consumption patterns, fast food consumption habits, lack of physical activity, and sedentary habits.

According to WHO (2021), obesity in children occurs due to energy imbalance, which is the intake of energy that is greater than the energy expended by the body. Excessive consumption of foods high in fat, sugar, and calories can lead to the accumulation of body fat, increasing the risk of obesity. In addition, lack of physical activity is also a factor that contributes to the increase in the incidence of obesity in children. According to the Indonesian Ministry of Health (2022), children with obesity are at risk of experiencing various health problems such as metabolic disorders, diabetes mellitus, hypertension, and psychosocial disorders if not treated early.

The results of this study are in line with research by Herliana et al. (2022) which showed that most children who are obese are children who often consume fast food, with the results of statistical tests showing a significant relationship ($p\text{-value} = 0.028$). Research by Eni Rahmawati (2024) also states that the consumption of high-calorie foods is associated with an increased risk of obesity in school-age children.

The researchers' assumption is that the high incidence of obesity in respondents is influenced by high consumption of fast food, uncontrolled snacking habits, lack of physical activity, and lack of supervision of children's diet.

Based on the results of the research that has been conducted, it was found that the normal category was 64 respondents (42.4%). The results showed that most of the respondents had good nutritional status and were in accordance with the growth of school-age children. Children with normal nutritional status show a balance between incoming energy intake and body needs so that growth and development can take place optimally.

According to the Ministry of Health of the Republic of Indonesia (2022), normal nutritional status shows that children's nutritional needs are met in a balanced manner so as to support physical growth, development, and daily activities. A healthy diet, adequate physical activity, and healthy lifestyle habits play an important role in maintaining normal nutritional status in children. In addition, children with normal nutritional status tend to have better immunity and age-appropriate growth.

The results of this study are in line with research by Tania Kanesa (2023) which shows that children with a good diet and not excessive consumption of fast food tend to have normal nutritional status. A balanced diet can help maintain an ideal weight in school-age children.

The researcher assumes that the normal nutritional status of the respondents is influenced by a better diet, consumption of balanced nutritious food, and parental supervision of children's eating habits.

Based on the results of the research that has been conducted, it was found that the underweight category was 5 respondents (3.3%). The results showed that a small percentage of respondents had a nutritional status below normal. This condition can be affected by insufficient food intake for the body's energy and nutrient needs, irregular eating habits, and other factors such as physical activity and children's health conditions.

According to the Ministry of Health of the Republic of Indonesia (2022), underweight in children can occur due to insufficient intake of nutrients for the body for a long time. This condition can affect a child's growth, development, immunity, and learning ability. In addition, the lack of consumption of balanced nutritious foods can also increase the risk of health problems in school-age children.

The results of this study are in line with the research conducted by Dewitasari et al. (2025) which states that children's nutritional status is influenced by consumption patterns and the quality of daily food intake. Children with low intake tend to have a risk of developing nutritional status disorders, including underweight.

The researchers assume that the weight category is less influenced by lack of nutritious food intake, irregular eating habits, and the possibility of other factors such as physical activity and children's health conditions.

Based on the results of the research that has been conducted, it was obtained that the overweight category was 4 respondents (2.6%). The results showed that only a small percentage of respondents experienced an increase in weight above normal but did not include the obesity category. This condition can occur due to an imbalance between energy intake and the body's energy expenditure.

According to Kartika et al. (2022), excess weight occurs when the intake of energy is greater than the energy used by the body, resulting in gradual accumulation of fat. The habit of eating high-calorie foods, low physical activity, and a less active lifestyle can increase the risk of overweight in children. If left unchecked, this condition can develop into obesity.

The results of this study are in line with research by Eni Rahmawati (2024) which shows that the consumption of high-calorie foods, including fast food, is related to weight gain in school-age children. High frequency of consumption can increase the risk of being overweight before it progresses to obesity.

The researchers assume that the overweight category is influenced by an unbalanced diet, increased consumption of high-calorie foods, and less than optimal physical activity.

The Relationship of Fast Food Consumption Patterns with the Incidence of Obesity in School-Age Children at SDN 27 Kota Selatan, Gorontalo City.

Based on the results of bivariate analysis using the Chi-Square test, a $p\text{-value} = 0.000$ ($p < 0.05$) was obtained, so it can be concluded that there is a significant relationship between fast food consumption patterns and the incidence of obesity in school-age children at SDN 27 Kota Selatan, Gorontalo City. These results show that fast food consumption patterns are related to children's nutritional status, especially to an increased risk of obesity in school-age children.

Based on the results of the research that has been conducted, it was found that respondents with fast food consumption patterns are often in the obesity category as many as 78 respondents (51.7%). These results show that the more frequent the consumption of fast food, the tendency to obesity in school-age children also increases. The high frequency of fast food consumption can lead to an increase in excessive energy intake thus contributing to the accumulation of body fat and weight gain.

According to Kartika et al. (2022), fast food generally contains calories, saturated fat, sugar, and sodium that are high in fiber and other important nutrients. Excessive consumption of fast food can lead to an imbalance in energy intake and increase the risk of obesity. According to the energy imbalance theory, obesity occurs when the intake of energy is greater than the energy expended by the body, resulting in the accumulation of body fat. Thus, the higher the frequency of fast food consumption, the higher the risk of obesity in children.

The results of this study are in line with the research of Herliana et al. (2022) which showed that most children who are obese are children who often consume fast food with the results of a statistical test of $p\text{-value} = 0.028$. Research by Eni Rahmawati (2024) also shows that the consumption of high-calorie foods is associated with an increased risk of obesity in children.

The researchers' assumption is that the high incidence of obesity in the fast food consumption category often shows that the frequency of fast food consumption plays a role in the increase in children's weight. This condition is influenced by high consumption of fast food, uncontrolled snacking habits, and lack of physical activity.

Based on the results of the research that has been conducted, it was found that respondents with fast food consumption patterns in the rare category were all in the normal category as many as 64 respondents (42.4%). These results show that the low frequency of fast food consumption tends to be related to normal nutritional status in school-age children. Consumption of fast food less often allows children to get a more balanced nutritional intake from other foods so that it helps maintain normal nutritional status.

According to the Ministry of Health of the Republic of Indonesia (2022), normal nutritional status shows that children's nutritional needs are met in a balanced manner so as to support children's growth and development. Low consumption of fast food and healthy eating habits can help maintain a balance of nutritional status. Thus, the lower the consumption of fast food, the tendency of normal nutritional status in children can be more maintained.

The results of this study are in line with research by Tania Kanesa (2023) which shows that children with a healthy diet and low consumption of fast food tend to have normal nutritional status.

The researcher assumes that the fast food consumption category rarely shows a relationship with normal nutritional status because children get more nutritious food intake and parental supervision of children's diet.

Based on the results of the research that has been conducted, it was found that respondents with fast food consumption patterns were never entirely in the underweight category, as many as 5 respondents (3.3%). These results show that the absence of fast food consumption in the respondents in this study tends to be related to underweight status. This condition may be influenced by a lack of overall energy and nutrient intake so that children's nutritional needs have not been met optimally.

According to the Ministry of Health of the Republic of Indonesia (2022), underweight can occur due to low energy and nutrient intake in a certain period of time. Children who do not get enough intake are at risk of growth and developmental disorders. This shows that not only is high food consumption that needs to be considered, but the adequacy of nutritional intake is also important in maintaining the nutritional status of children.

The results of this study are in line with the research of Dewitasari et al. (2025) which states that children's nutritional status is influenced by consumption patterns and the quality of daily food intake.

The researchers' assumption is that the relationship between categories and weight loss is likely to be influenced by low energy intake and diets that do not meet the nutritional needs of children.

Based on the results of the research that has been conducted, it was found that respondents with fast food consumption patterns in the category of sometimes all of them are in the overweight category as many as 4 respondents (2.6%). These results show that fast food consumption, even if not done frequently, can still be related to weight gain if not balanced with a healthy diet and sufficient physical activity.

According to Kartika et al. (2022), excess weight occurs due to an imbalance between the incoming energy and the energy used by the body. Consumption of high-calorie foods, including fast food, even in moderate frequency, can still increase weight if done repeatedly. Thus, the consumption of fast food categories sometimes still has the potential to be related to the occurrence of overweight in children.

The results of this study are in line with the research of Eni Rahmawati (2024) which shows that the consumption of high-calorie foods, including fast food, is related to weight gain in school-age children.

The researchers assume that the relationship between the categories sometimes and being overweight is likely influenced by the consumption of high-calorie foods that have not been balanced by physical activity and a good diet.

CONCLUSION

Respondents who had fast food consumption patterns in the frequent category were 78 respondents (51.7%), followed by the rare category as many as 64 respondents (42.4%), the never category as many as 5 respondents (3.3%), and the occasional category as many as 4 respondents (2.6%).

Respondents who were obese were 78 respondents (51.7%), followed by the normal category as many as 64 respondents (42.4%), the underweight category as many as 5 respondents (3.3%), and the overweight category as many as 4 respondents (2.6%).

There was a relationship between fast food consumption patterns and the incidence of obesity in school-age children at SDN 27 Kota Selatan, Gorontalo City, with the results of the Chi-Square test obtaining a p-value = 0.000 ($p < 0.05$).

ADVICE

It is hoped that health workers can use the results of this research as a basis for developing promotive and preventive programs related to the prevention of obesity in school-age children. Efforts that can be made include nutrition counseling, education about restricting fast food consumption, and increasing public awareness about the importance of a healthy diet from an early age.

It is hoped that the results of this research can be used as a reference in the development of pediatric nursing science, especially those related to nutrition and obesity problems. In addition, health institutions can develop community-based intervention programs that focus on improving the diets of school-age children.

It is hoped that the school can increase its role in obesity prevention efforts by providing health education to students on a regular basis about the importance of a healthy diet. In addition, schools are also expected to control the types of snacks available in the school environment and encourage students to bring healthy food supplies from home.

It is hoped that the results of this study can increase respondents' awareness of the impact of fast food consumption on the risk of obesity. Parents are expected to pay more attention to their children's diet by limiting the consumption of fast food and providing balanced nutritious food, while students are expected to start implementing healthier eating habits.

It is hoped that this research can be a reference and basis for further in-depth research by adding other variables such as physical activity, sleep patterns, and environmental factors. In addition, further research is expected to use a broader research design to obtain more comprehensive results.

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