OMNI HEALTH JOURNAL
e-ISSN: 3047-6216
Volume 3 Issue 2, 2026

Original Research

A Descriptive Study of Children's Dietary Habits and Nutritional Status

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Article Info

Article History:
Received: 2025-04-19
Revised: 2026-04-18
Accepted: 2026-04-26

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Early View
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DOI: 10.65277/ohj.v3i2.124

Abstract

Background: Children's physical and mental health depends on a balanced diet that provides adequate nutrients to support optimal growth and development.
Objective: This study aimed to describe children's dietary habits and their nutritional status.
Methods: This study employed a descriptive method with a cross-sectional design involving 59 elementary school students. Data were collected using a dietary questionnaire and anthropometric measurements, and analyzed descriptively using frequency and percentage distributions.
Results: More than half of the respondents had appropriate dietary habits (55.9%) and normal nutritional status (57.6%). Among children with appropriate dietary habits, the majority had normal nutritional status (93.9%). In contrast, children with inappropriate dietary habits were more likely to experience undernutrition (42.3%) and overnutrition (46.2%).
Conclusion: Appropriate dietary habits are associated with better nutritional status among children. Therefore, balanced and regular food intake, including essential nutrients such as carbohydrates, proteins, vitamins, and minerals, is important to support optimal child health.

Keywords: Dietary habits; nutritional status; children

How to Cite:
Patmawati, Sumarmi, Ernawati, Nuryana, R., Alwi, & Syamsinar. (2026). A Descriptive Study of Children's Dietary Habits and Nutritional Status Overview of Children's Diet and Nutritional Status. *Omni Health Journal*, *3*(2), 36-41. https://doi.org/10.65277/ohj.v3i2.124

Introduction

Elementary school-aged children experience significant increases in height and weight, making it essential to pay close attention to their nutritional health. Adequate nutritional intake is required to support optimal growth and development. Nutritional status plays a crucial role in influencing intelligence, health, immunity, and productivity, as well as reducing the risk of chronic diseases and early mortality. Therefore, assessing the nutritional status of school-aged children is important. This assessment is commonly conducted using anthropometric measurements to identify nutritional problems within a population (Zuhriyah, A., & Indrawati, 2021). One widely used method is the body mass index (BMI). In Indonesia, child anthropometric standards refer to the WHO Child Growth Standards for toddlers and BMI-for-age (BMI/U) for children aged 5-18 years, which provide benchmarks for optimal child growth (Ministry of Health of the Republic of Indonesia, 2022).

Diet is one of the main factors influencing a child's growth and development. A balanced and healthy diet is essential to ensure that children receive adequate nutrients to maintain both physical and mental health (Jatmikowati et al., 2023). Previous research indicates that children across different countries can achieve similar developmental outcomes when provided with appropriate nutrition, caregiving, and health services. In Indonesia, the assessment of children's nutritional status is guided by

KMK No. 1995/Menkes/SK/XII/2010 concerning anthropometric standards, which was established based on extensive research and expert consensus (Andansari, 2020).

Adequate intake of nutrient-dense foods is particularly important for school-aged children to support their rapid growth and overall health. Proper nutrition not only fulfills energy requirements but also supports brain development and cognitive function. Prolonged inadequate nutrient intake can disrupt brain metabolism, which may negatively affect learning ability and academic performance. Furthermore, children with poor nutritional status are more likely to experience frequent illness, leading to increased school absenteeism and potential delays in educational achievement. Thus, nutritional status is closely related to children's academic outcomes (Amelia, N., & Annisa, 2024).

Globally, child malnutrition remains a significant public health concern. According to UNICEF-WHO-WB estimates in 2022, approximately 45.0 million children were affected by wasting, 149.0 million were stunted, and 37.0 million were overweight (UNICEF, 2022). In Indonesia, the 2023 Indonesian Health Survey (SKI) reported that 97.3% of individuals aged over 5 years in South Sulawesi had inadequate fruit and vegetable intake, primarily due to personal preferences. Additionally, among children aged 5-12 years, the prevalence of very undernourished was 3.9%, undernourished 9.4%, overweight 9.0%, and obese 6.2% out of 4,011 children surveyed (Ministry of Health of the Republic of Indonesia, 2023). These findings highlight the importance of improving dietary patterns to support optimal nutritional status among children.

Methods

Study Design

This study employed a descriptive survey approach with a cross-sectional design, in which both independent and dependent variables were measured at a single point in time. This design was chosen to describe children's dietary patterns and their nutritional status without examining causal relationships.

Samples

The population of this study included all students in grades I to IV at SD Negeri 52 Korong Batu, Baruga District, Bantaeng Regency, totaling 222 students. A stratified random sampling technique was applied proportionally based on class level to ensure adequate representation of each group. From this population, a total sample of 59 students was obtained, which was considered to represent the overall characteristics of the population.

Instruments

Data were collected using a structured diet questionnaire designed to obtain information on children's eating habits, including types of food consumed, meal frequency, and meal timing. In addition, an anthropometric recording form was used to document measurements of body weight and height, which served as the basis for determining nutritional status using body mass index for age (BMI/U), in accordance with WHO standards and the Indonesian Ministry of Health guidelines. Prior to data collection, the questionnaire was reviewed to ensure clarity and relevance of items, and a consistency check was conducted to ensure that all questions could be understood by respondents.

Data Collection

Data collection was conducted through direct observation and structured interviews with students regarding their daily dietary habits. Anthropometric measurements, including body weight and height, were obtained to calculate BMI, which was then classified into nutritional status categories (underweight, normal, and overweight). Additional data on respondent characteristics, such as age, gender, and parental background (mother's age and education), were also collected.

Data Analysis

Data analysis was performed using a quantitative descriptive approach. Data obtained from questionnaires and anthropometric measurements were processed to describe the distribution of children's dietary patterns (appropriate or inappropriate) and nutritional status based on BMI/U. The results were presented in the form of frequency and percentage distributions. No inferential statistical analysis was conducted, as the primary objective of this study was to provide a descriptive overview rather than to test statistical relationships between variables.

Ethical Considerations

Ethical approval for this study was obtained from the Ethics Committee of STIKes Tanawali Takalar. Prior to data collection, informed consent was obtained from all respondents through the provision of a consent form. The study ensured the confidentiality and anonymity of all participants, and all procedures were conducted in accordance with ethical principles.

Results

Based on Table 1, most respondents were aged ≤ 10 years, totaling 37 children (62.7%), while 22 children (37.3%) were aged > 10 years. In terms of class distribution, the largest proportion of respondents was in grade IV (23 students; 39.1%), while the smallest proportion was in grade III (10 students; 16.9%). Based on gender, the majority of respondents were female (42 students; 71.2%), while male respondents accounted for 17 students (28.8%).

Table 1. Distribution of Respondents by Age, Class, and Gender

Variable	Frequency (n)	Percentage (%)
Age		
≤ 10 years	37	62.7
> 10 years	22	37.3
Class		
I	13	22.0
II	13	22.0
III	10	16.9
IV	23	39.1
Gender		
Male	17	28.8
Female	42	71.2
Total	59	100.0

Source: SPSS Processed Data

Based on Table 2, most mothers were aged 20-35 years (35 respondents; 59.3%), while 24 respondents (40.7%) were aged > 35 years. No respondents were aged < 20 years. In terms of education level, most mothers had a senior high school education (31 respondents; 52.5%), followed by junior high school (15 respondents; 25.5%) and elementary school (13 respondents; 22.0%).

Table 2. Distribution of Respondents by Mother's Age and Education

Variable	Frequency (n)	Percentage (%)
Mother's Age		
20-35 years	35	59.3
> 35 years	24	40.7
Education		
Elementary School	13	22.0
Junior High School	15	25.5
Senior High School	31	52.5
Total	59	100.0

Source: SPSS Processed Data

The distribution of respondents based on dietary patterns showed that 24 children (40.7%) had appropriate dietary habits, while 35 children (59.3%) had inappropriate dietary habits.

Table 3. Distribution of Respondents by Dietary Habits

Dietary Habits	Frequency (n)	Percentage (%)
Appropriate	24	40.7
Inappropriate	35	59.3
Total	59	100.0

Source: SPSS Processed Data

Based on nutritional status measured using BMI-for-age (BMI/U), most respondents had normal nutritional status (34 children; 57.6%), followed by overweight (14 children; 23.8%) and underweight (11 children; 18.6%).

Table 4. Distribution of Respondents by Nutritional Status

Nutritional Status	Frequency (n)	Percentage (%)
Underweight	11	18.6
Normal	34	57.6
Overweight	14	23.8
Total	59	100.0

Source: SPSS Processed Data

Table 5 presents the distribution of dietary habits in relation to nutritional status. Among respondents with appropriate dietary habits (33 children), most had normal nutritional status (31 children; 93.9%), while 2 children (6.1%) were overweight, and none were underweight. In contrast, among respondents with inappropriate dietary habits (26 children), the majority were overweight (12 children; 46.2%) and underweight (11 children; 42.3%), while only 3 children (11.5%) had normal nutritional status.

Table 5. Distribution of Dietary Habits and Nutritional Status

Dietary Habits	Underweight n (%)	Normal n (%)	Overweight n (%)	Total n (%)
Appropriate	0 (0.0)	31 (93.9)	2 (6.1)	33 (100)
Inappropriate	11 (42.3)	3 (11.5)	12 (46.2)	26 (100)
Total	11 (18.6)	34 (57.6)	14 (23.8)	59 (100)

Source: SPSS Processed Data

Discussion

Diet

The findings indicate that a considerable proportion of children had inappropriate dietary habits, reflecting imbalances in food type, quantity, and meal timing. Rather than merely describing these patterns, it is important to interpret their implications. Dietary habits represent a structured pattern of food consumption that directly influences nutrient intake and overall health status. In this context, the variation in children's eating habits suggests differences in dietary quality, which may be shaped by family practices, food availability, and daily routines. As highlighted by Regina Ardhia Bere Mau (2024), children's dietary patterns are determined by the type, frequency, and timing of meals, all of which contribute to the adequacy of nutrient intake. Therefore, inappropriate dietary habits observed in this study may indicate a risk of nutritional imbalance, which requires attention through nutrition education and behavioral interventions.

Nutritional Status

The assessment of nutritional status using BMI-for-age (BMI/U) provides an important indicator of children's growth and health condition. The predominance of normal nutritional status among respondents suggests that, overall, most children have adequate nutritional intake. However, the presence of both undernutrition and overnutrition indicates a double burden of malnutrition within the population. This finding reflects the complexity of nutritional problems among school-aged children, where both insufficient and excessive nutrient intake can occur simultaneously. According to Muchtar et al. (2022), BMI/U is a sensitive measure for identifying nutritional status, particularly in detecting overnutrition and obesity. Furthermore, nutritional status is not solely influenced by dietary intake but also by broader socio-cultural and environmental factors, including education, lifestyle, and health conditions (Nurmalita Sari, 2022). This highlights the need for a comprehensive approach in addressing child nutrition.

Diet and Nutritional Status

The results demonstrate a clear pattern in which appropriate dietary habits are associated with better nutritional status, while inappropriate dietary habits are linked to both undernutrition and overnutrition. This suggests that dietary quality plays a crucial role in maintaining nutritional balance. However, the relationship is not absolute, as a small proportion of children with appropriate diets still exhibited

overnutrition, and some with inappropriate diets had normal nutritional status. This indicates that dietary habits are not the sole determinant of nutritional outcomes.

These findings are consistent with previous studies by Permatasari et al. (2023), which reported that children with good dietary patterns tend to have better nutritional status, while poor dietary habits are associated with nutritional problems. Similarly, Anggreny and Niriyah (2022) emphasized that adequate intake of essential nutrients such as carbohydrates, proteins, vitamins, and minerals is necessary to support optimal growth. Regular meal patterns, including consuming three meals per day and maintaining a balanced diet consisting of staple foods, side dishes, fruits, and vegetables, are essential in achieving good nutritional status.

Nevertheless, the variation observed in this study suggests the influence of additional factors beyond diet alone. As noted by Leviana and Agustina (2024), factors such as physical activity, environmental sanitation, and infectious diseases also contribute to children's nutritional status. This explains why some children with appropriate dietary habits may still experience overnutrition, while others with less appropriate diets may maintain normal nutritional status. Therefore, interventions aimed at improving nutritional status should adopt a holistic approach that considers both dietary and non-dietary determinants.

Overall, this study highlights the importance of promoting appropriate dietary habits among school-aged children as a key strategy to improve nutritional status. However, effective interventions should also address broader determinants, including lifestyle and environmental factors, to achieve sustainable improvements in child health.

Conclusion

Based on the results of this study, most students in grades I-IV at SD Negeri 52 Korong Batu had normal nutritional status (57.6%), while 18.6% were undernourished and 23.8% were overnourished. In terms of dietary habits, more than half of the students had appropriate dietary patterns (55.9%), while the rest had inappropriate dietary habits. The findings indicate that children with appropriate dietary habits predominantly had normal nutritional status, whereas those with inappropriate dietary habits were more likely to experience both undernutrition and overnutrition. These results highlight the importance of promoting balanced and healthy eating habits among children to support optimal nutritional status. Therefore, efforts to improve children's nutrition should focus on strengthening dietary education for both children and families, as well as encouraging the adoption of balanced and regular eating patterns.

References

Andani, N., Sumarmi, Ilhamsyah, & Rasdiyanah. (2025). Sinergi Aksi Kolaboratif: Pemberdayaan Komunitas Melalui Sunatan Massal dan Asuhan Keperawatan Berkelanjutan. *Omni Pengabdian Masyarakat*, *2*(3), 68-73. https://doi.org/10.65277/opm.v2i3.126

Andansari, A. (2020). *Literature review: Risk factors for stunting incidence in toddlers aged 1-5 years*.

Anggreny, Y., & Niriyah, S. (2022). The relationship between maternal education level and the consumption of vegetables and fruits in preschoolers. *Community of Publishing in Nursing, 10*, 136.

Antika, R., Rahmai, S., & Handayani, T. (2024). Overview of Mrs. Primipara's level of knowledge about exclusive breastfeeding in the working area of the Bowong Cindea Pangkep Health Center. *Omni Health Journal*, *1*(3), 102-106. https://doi.org/10.65277/ohj.v1i3.73

Handayani, L., Rachmah, R., & Saputra, H. (2020). The effect of nutrition education on maternal knowledge in stunting prevention. *Journal of Health Science and Technology, 7*(1), 43-48.

Irmawati, I., Amin, K. ., & Haruna, S. R. . (2024). Overview of the Level of Knowledge of Posyandu Cadres about Monitoring the Growth of Toddler Development. *Omni Health Journal*, *1*(1), 07-13. https://doi.org/10.65277/ohj.v1i1.10

Jatmikowati, T. E., Nuraini, K., Winarti, D. R., & Adwitiya, A. B. (2023). The role of teachers and parents in eating healthy food habits in early childhood. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini, 7*(2), 1279-1294.

Jawar, M., Faizal, F., & Wanci, R. (2025). The Effect of Education on Clean and Healthy Living Behavior of Latrine Use in School-Age Children. *Omni Health Journal*, *2*(2), 39-43. https://doi.org/10.65277/ohj.v2i2.85

Juwita, H. ., Qasim, M. ., & Sinay, V. E. . (2025). Relationship Between Feeding Practice and Stunting Incidents in Toddlers. *Omni Nursing Journal*, *2*(1), 7-11. https://doi.org/10.65277/onj.v2i1.60

Kementerian Kesehatan Republik Indonesia. (2023). *Survei Kesehatan Indonesia (SKI) dalam angka*.
Leviana, S., & Agustina, Y. (2024). Analysis of diet with nutritional status in grade V students at SDN Jatiwaringin XII Bekasi City. *Malahayati Nursing Journal, 6*(4), 1635-1656.
Muchtar, F., Rejeki, S., & Hastian, H. (2022). Measurement and assessment of the nutritional status of school-age children using body mass index by age. *Community Servants, 4*(2).
Muhammad Sahlan Zamaa, Andi Aridhasari Sudirman, Riski Muhammad Akbar Kaharuddin, Sitti Maryam Bachtiar, & Ratna Mahmud. (2025). Pemeriksaan Status Gizi Anak Menggunakan Antropometri Berbasis Aplikasi Z Score WHO. *Omni Pengabdian Masyarakat*, *2*(4), 100-106. https://doi.org/10.65277/opm.v2i4.232
Nena Meo, M. L., Rotty, M. P. ., & Kundre, R. M. . (2025). Pelatihan “Isi Piringku” untuk Ibu Hamil Sebagai Upaya Pencegahan Stunting. *Omni Pengabdian Masyarakat*, *2*(4), 127-132. https://doi.org/10.65277/opm.v2i4.182
Nurmalita Sari, N., et al. (2022). *Nutrition in midwifery*. Yayasan Kita Menulis.
Permatasari, I., Ritanti, R., & Siregar, T. (2023). The relationship between children's diet and nutritional status of school-age children. *Journal of Health, 12*(1), 209-213.
Pratiwi, I., Islaeli, I., & Islamiyah, I. (2024). The Relationship Between Maternal Knowledge About 1000 HPK With Nutritional Status in Children 0-24 Months. *Omni Health Journal*, *1*(2), 56-61. https://doi.org/10.65277/ohj.v1i2.47
Regina Ardhia Bere Mau, P. (2024). *The relationship between body image, eating habits, and sleep duration with the nutritional status of adolescents aged 15-18 years at SMA Negeri 6 Kupang City* (Diploma thesis).
Republik Indonesia, K. K. (2022). *Pocket book: Results of the 2022 Indonesian Nutrition Status Survey (SSGI)*.
Risnah, Muthahharah, Sumarmi, & Harmawati. (2025). Pengabdian Berbasis Kebijakan: Strategi Diseminasi Policy Brief Pengasuhan Dini. *Omni Pengabdian Masyarakat*, *2*(4), 116-120. https://doi.org/10.65277/opm.v2i4.133
Syam, N. F. S., Triananinsih, N., Azis, M., & Eryanti, R. (2025). The Relationship between Type and Frequency of Complementary Feeding and Nutritional Status among Infants Aged 7-12 Months. *Omni Health Journal*, *2*(4), 92-96. https://doi.org/10.65277/ohj.v2i4.115
UNICEF. (2022). *Severe wasting: An overlooked child survival emergency*.
Zuhriyah, A., & Indrawati, V. (2021). Energy consumption, protein, physical activity, and nutrition knowledge with nutritional status of students of SDN Dukuhsari, Sidoarjo Regency. *Journal of Nutrition, State University of Surabaya, 1*(1), 45-52.