Jurnal Kesehatan Akimal
e-ISSN: 2963-3338
Volume 5 No. 2 Edisi Oktober 2026
https://jurnal.akimal.ac.id/index.php/jka

The Relationship Between Family Economic Status and Nutritional Status of Elementary Students at SD IT Muhammadiyah 6 Lhokseumawe

Musdarianto[1]*, Ana Maryana[2], Affuadi[3]
Sekolah Tinggi ILmu Kesehatan (STIKes) Muhammadiyah Lhokseumawe, Indonesia
Email: musdarianto1@gmail.com

ARTICLE INFO

Received 07 Sept 2026
Accepted 18 Sept 2026
Published 31Oct 2026

Keywords:
Family Economic Status;
Nutritional Status;
Elementary School.

ABSTRACT

Nutrition problems in children, especially elementary school students, are an important issue because they have long-term impacts on their physical, cognitive, and social development. Good nutritional status is needed to support optimal growth and children's learning abilities. One factor that affects children's nutritional status is the family's economic status. The family's financial condition plays a significant role in their ability to provide enough and nutritious food. Families with low income often face challenges in providing healthy food that meets children's nutritional needs. As a result, children from low-income families often experience nutrition problems such as malnutrition or obesity. The type of research used is quantitative with a cross-sectional study approach. The respondents/samples of the study were all students of SD IT Muhammadiyah 6 in Lhokseumawe, totaling 142 people. The highest family economic status was in the middle category with 55 respondents (38.7%) and the lowest was in the low category with 38 respondents (26.8%). Meanwhile, the highest student nutritional status was in the normal category with 93 respondents (65.5%) and the lowest was in the underweight category with 6 respondents (4.2%). Based on the statistical test using the chi-square test, a p-value of 0.036 (< alpha value 0.05) was obtained, so it can be concluded that there is a relationship between family economic status and the nutritional status of students at SD IT Muhammadiyah 6 Kota Lhokseumawe. It is recommended that parents and/or the school monitor students' nutritional status regularly through cooperation with relevant parties.

How to cite: Musdarianto1., Ana Maryana2., & Affuadi3 (2026). The Relationship Between Family Economic Status and Nutritional Status of Students at SD IT Muhammadiyah 6, Lhokseumawe City. *Jurnal Kesehatan Akimal, Vol 5(No2)*, xx-xx. https://doi.org/10.58435/jka.xxxxxxxx

This is an open-access article distributed under a Creative Commons Attribution-ShareAlike 4.0 International License, that allows others to share the work with an acknowledgement of the work's authorship and initial publication in this journal.

* *Corresponding author: musdarianto1@gmail.com*

INTRODUCTION

Nutritional problems among children, particularly elementary school students, are an important public health concern because they can have long-term effects on physical, cognitive, and social development. Good nutritional status is essential for optimal growth and learning ability. One of the factors that may influence children's nutritional status is family economic status.

Lhokseumawe City has considerable socioeconomic diversity. People earn their livelihoods from various sectors, including small-scale trading, daily labor, private employment, civil service, and professional occupations. This diversity results in varying levels of family economic status within the community. Families employed in the formal sector generally have more stable daily or monthly incomes, enabling them to meet basic household needs adequately. In contrast, families relying on irregular sources of income often face challenges in maintaining financial stability. Fluctuations in daily earnings can affect household purchasing power, particularly regarding daily food needs.

These varying economic conditions indirectly influence daily lifestyles and food consumption patterns, including those of elementary school children. Children at the elementary school level experience rapid physical and cognitive development and therefore require a balanced nutritional intake. For families with limited financial resources, providing a diverse diet that meets the requirements for protein, vitamins, and minerals can be challenging. Conversely, families with better economic circumstances generally have greater opportunities to provide a wider variety of nutritious foods and access better healthcare services.

A study conducted by Suryani et al. (2021) examining the relationship between family income and children's nutritional status in elementary schools found a significant association between parental income and students' nutritional status. Families with higher incomes generally have greater purchasing power to provide balanced and nutritious foods, such as animal-source protein, fruits, and vegetables. In contrast, families with limited incomes may prioritize providing sufficient food quantities to ensure that children feel full rather than focusing on nutritional quality.

Another study by Ramadhan and Kurnia (2022), which examined family socioeconomic status by considering daily income and parental education, found that low socioeconomic status was associated with a greater risk of under nutrition and stunting among elementary school children. However, the findings also suggested that parental education and nutritional knowledge could serve as protective factors. Parents who understand the importance of nutrition can utilize affordable local food resources to meet their children's nutritional needs, even when their economic circumstances are limited.

Although previous studies have established an association between parental economic status and the nutritional status of elementary school children, the researcher has not identified a comparable study specifically examining this relationship in Lhokseumawe City, taking into account the area's socioeconomic characteristics and local culture. As a coastal and industrial area in transition, Lhokseumawe has distinctive food consumption

patterns and local food resources, including seafood. Therefore, this study focuses on the local context of Lhokseumawe, where families have diverse occupations and access to different food resources. Rather than considering parental income as an isolated indicator, the study seeks to examine its implications for children's daily food choices at home and in the school environment.

Nutritional problems affect not only children's physical health but also their academic performance and social development. In educational settings, poor nutritional status may make it difficult for children to participate effectively in learning activities and develop the skills necessary for their future. Therefore, understanding the relationship between family economic status and the nutritional status of elementary school students is essential for developing appropriate policies and interventions to address these problems.

The nutritional status of elementary school children is an important determinant of physical growth, intellectual development, and academic achievement. Adequate nutrition enables children to grow optimally, maintain sufficient energy for daily activities, and concentrate effectively during lessons. However, many Indonesian children continue to experience nutritional problems, including undernutrition, such as stunting and underweight, as well as overnutrition, including obesity. These conditions can negatively affect children's quality of life (Almatsier, 2020).

According to the Indonesia Health Profile (2024), the prevalence of severe malnutrition in Aceh Province remains higher than the national figure. The reported national prevalence of severe malnutrition is 3.5%, whereas the figure for Aceh exceeds 5.5%. Data obtained from the Lhokseumawe City Health Office indicate that, among children visiting community health centers, weight-for-age (W/A) measurements identified 82 children as severely underweight, 431 as underweight, 4,250 as having normal weight, and 134 as overweight. The prevalence of stunting in Lhokseumawe City was recorded at 17.4%, showing a declining trend compared with 20.7% in 2023 and 28.1% in 2022. Based on the municipal electronic community-based nutrition recording system (E-PPGBM) as of March 2025, the prevalence of chronic malnutrition (stunting) was approximately 4.76%, representing around 664 children. In addition to undernutrition, including underweight and stunting, urban areas of Lhokseumawe are increasingly facing challenges related to overweight and obesity among school-aged children, potentially associated with dietary shifts toward instant foods and sugar-rich products (Aceh Health Profile, 2024).

Elementary school children are a strategic target for community nutrition improvement because childhood is a critical period for brain development and the advancement of cognitive abilities. Elementary school children are generally between 6 and 12 years of age. Adequate nutrition is essential during this period to support normal growth and development and prevent developmental abnormalities. Nutritional deficiencies can also weaken children's immune systems. High activity levels and irregular eating habits among children may contribute to an imbalance between nutritional intake

and requirements. Such imbalances can lead to nutritional problems, including both under nutrition and over nutrition.

METHOD

This study employed a quantitative approach with a cross-sectional study design. It aimed to determine the relationship between family economic status and the nutritional status of elementary school students, as well as to examine the extent to which family economic status was associated with children's nutritional conditions. The study was conducted at SD IT Muhammadiyah 6, Lhokseumawe City, from October to December 2025. The study used a total sampling technique, involving all 142 students from Grades I to VI.

Data were collected through body mass index (BMI) measurements and secondary data obtained from school records regarding the occupations and economic status of students' parents or families. Descriptive analysis was performed to describe the respondents' characteristics, family economic status, and the distribution of students' nutritional status. The Chi-square test was used for statistical analysis to determine the relationship between the independent variable, family economic status, and the dependent variable, students' nutritional status.

RESULT AND DISCUSSION

Table 1. Frequency Distribution of Family Economic Status

No	Family Economic Status	Frequency (n)	Percentage (%)
1	High	49	34,5 %
2	Middle	55	38,7 %
3	Low	38	26,8 %
Total		142	100 %

Table 2. Frequency Distribution of Nutritional Status

No	Nutritional Status	Frequency (n)	Percentage (%)
1	Thin	6	4,2 %
2	Normal	93	65,5 %
3	At Risk of Overweight	28	19,7 %
4	Overweight	15	10,6 %
Total		142	100 %

Table 3. Cross-Tabulation of Family Economic Status and Nutritional Status

			Child Nutritional Status				
			Thin	**Normal**	**At Risk of Overweight**	**Overweight**	**Total**
Family Economic Status	High	Count	0	35	6	8	49
		Expected Count	1.7	32.4	9.7	5.2	49.0
		% within Family Economic Status	.0%	71.4%	12.2%	16.3%	100.0%
	Middle	Count	1	34	15	5	55
		Expected Count	1.9	36.4	10.8	5.8	55.0
		% within Family Economic Status	1.8%	61.8%	27.3%	9.1%	100.0%
	Low	Count	4	25	7	2	38
		Expected Count	1.3	25.2	7.5	4.0	38.0
		% within Family Economic Status	10.5%	65.8%	18.4%	5.3%	100.0%
Total		Count	5	94	28	15	142
		Expected Count	5.0	94.0	28.0	15.0	142.0
		% within Family Economic Status	3.5%	66.2%	19.7%	10.6%	100.0%

Table 4. Statistical Test of the Relationship Between Family Economic Status and Nutritional Status

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	13.513[a]	6	.036
Likelihood Ratio	13.539	6	.035
Linear-by-Linear Association	2.653	1	.103
N of Valid Cases	142		

a. 4 cells (33,3%) have expected count less than 5. The minimum expected count is 1,34.

The findings of this study at SD IT Muhammadiyah 6, Lhokseumawe City, showed that most students' families had a middle economic status (38.7%), followed by high economic status (34.5%) and low economic status (26.8%). Regarding nutritional status, the majority of students had normal nutritional status (65.5%), while 19.7% were at risk of overweight, 10.6% were overweight, and 4.2% were classified as thin. These findings indicate that although most students had normal nutritional status, nutritional problems remained evident, particularly the risk of overweight and overweight. The coexistence of under nutrition and over nutrition reflects the potential for a double burden of malnutrition within the school environment.

The cross-tabulation results showed that normal nutritional status was the most common category across all family economic groups. Among students from families with high economic status, 35 out of 49 students (71.4%) had normal nutritional status. Similarly, 34 out of 55 students (61.8%) from middle-economic-status families and 25 out of 38 students (65.8%) from low-economic-status families had normal nutritional status. However, the proportion of students classified as thin was higher among those from low-economic-status families (10.5%) than among those from middle-economic-status families (1.8%), while no students from high-economic-status families were classified as thin. These findings suggest differences in nutritional status across economic groups, although the relationship is not necessarily linear.

The Pearson Chi-square test revealed a statistically significant relationship between family economic status and students' nutritional status ($p = 0.036$). Since the p-value was below the significance level of 0.05, the null hypothesis was rejected. This finding indicates that family economic status was significantly associated with the nutritional status of students at SD IT Muhammadiyah 6, Lhokseumawe City, in 2025. However, because this study employed a cross-sectional design, the results demonstrate an association rather than a causal relationship.

These findings are consistent with Indah and Khadijah (2025), who reported that socioeconomic factors, including parental income, occupation,

and educational attainment, were associated with the nutritional status of school-aged children. Similarly, Tarisya et al. (2024) found that all seven children with under nutrition (14%) came from families earning between IDR 1,000,000 and IDR 2,000,000 per month, while most children with obesity, accounting for five respondents (10%), came from families with incomes exceeding IDR 3,500,000. Their analysis also identified a significant relationship between parental income and children's nutritional status (p = 0.046). These findings support the importance of considering family socioeconomic circumstances when addressing nutritional problems among school-aged children.

Family economic status is an important social determinant of health because it can influence access to nutritious food, healthcare services, health education, and a supportive environment for child development. Families with greater financial resources generally have more opportunities to provide diverse foods containing adequate protein, vitamins, and minerals. In contrast, families with limited financial resources may experience difficulties meeting their children's nutritional needs and may prioritize affordable, filling foods over nutritional variety and quality. Nevertheless, economic status alone does not determine nutritional outcomes, as parental nutritional knowledge, food choices, care giving practices, and access to local food resources may also contribute to children's nutritional status.

The findings also have important implications for child health and education. Adequate nutrition supports physical growth, immune function, concentration, and cognitive development, all of which contribute to children's readiness to learn. Nutritional problems therefore require attention not only from parents but also from schools, healthcare professionals, and local government. Collaborative efforts could include nutrition education for parents and students, regular monitoring of children's growth and nutritional status, healthier school canteen options, and targeted nutritional support for economically vulnerable families. Such initiatives should address both undernutrition and excessive weight gain.

In conclusion, this study found a significant association between family economic status and the nutritional status of elementary school students at SD IT Muhammadiyah 6, Lhokseumawe City. Although normal nutritional status predominated in all economic groups, the differences observed in the distribution of thinness and overweight risk highlight the need for comprehensive and context-sensitive nutritional interventions. Strengthening collaboration among families, schools, healthcare providers, and government institutions may help promote balanced nutrition and support the healthy growth and development of school-aged children.

CONCLUSION

Most students at the school had normal nutritional status (93 students, 65.5%), while the remaining students were classified as at risk of overweight (19.7%), overweight (10.6%), and thin (4.2%). The Chi-square test showed a statistically significant relationship between family economic status and students' nutritional status (p = 0.036). Most families had a middle economic status (38.7%), followed by high (34.5%) and low (26.8%) economic status.

Better family economic circumstances may provide greater opportunities to meet children's nutritional needs through diverse, nutritious, and high-quality foods, whereas financial limitations may hinder adequate nutritional intake. Despite the predominance of normal nutritional status, the coexistence of undernutrition and overnutrition highlights the double burden of malnutrition as a public health concern. Schools and parents are encouraged to collaborate with relevant stakeholders to monitor students' nutritional status regularly and support optimal growth and development.

ACKNOWLEDGMENT

The authors would like to thank the principal, teachers, students, and parents of SD IT Muhammadiyah 6, Lhokseumawe City, for their cooperation and support during this study. The authors also appreciate everyone who contributed to the data collection and completion of this research.

REFERENCES

Almatsier, S. (2020).Prinsip Dasar Ilmu Gizi. Jakarta: PT. Gramedia Pustaka Utama.

Astute, R. K., & Irdawati. (2021). Hubungan antara status sosial ekonomi keluarga dengan status gizi anak usia sekolah. *Avicenna journal of health research,* 4(2), 115–122. Https://doi.org/10.35692 /avicenna.v4i2.125.

Dian, H., dkk. (2021). Faktor-faktor sosial ekonomi dan kesehatan masyarakat kaitannya dengan masalah gizi underweight, stunted, dan wasted di indonesia: pendekatan ekologi gizi. *Journal of nutrition and food*, 6(1), 59–65. Https://doi.org/ 10.1234/jnf.v6i1.456.

Dinar, M., & Hasan, M. (2022). *Pengantar ekonomi: teori dan aplikasi*. Makassar: CV. Nur Lina.

Fooken, J., & Vo, K. L. (2020). Exploring the macroeconomic and socioeconomic determinants of simultaneous over and undernutrition in asia: an analysis of stunted child-overweight mother households. *Social science & medicine*, 258, 113105. Https://doi.org/10.1016/j.socscimed.2020.113105.

Kementerian Kesehatan Republik Indonesia. (2025). *Laporan Eksekutif Survei Kesehatan Indonesia (SKI) Intervensi Gizi Anak Sekolah*. Jakarta: Badan Kebijakan Pembangunan Kesehatan Kemenkes ri. Https://www. Kemkes.go.id.

Kementerian Kesehatan Republik Indonesia. (2024). *Profil kesehatan indonesia 2023*. Jakarta: Kementerian Kesehatan RI. https://www.kemkes.go.id.

Pratiwi, D. A., & Hartono, B. (2025). Analisis Beban Ganda Malnutrisi (Double Burden Of Malnutrition) Dan Status Sosial Ekonomi Pada Anak Usia Sekolah Dasar Di Wilayah Perkotaan. *Jurnal Gizi Indonesia (The Indonesian Journal Of Nutrition)*, 13(2), 145–152. https://doi.org/10.14710 /jgi.13.2.2025.145-152.

Rahmawati, l., & Wijaya, K. (2024). Determinan Ekonomi Keluarga Dan Pola Konsumsi Pangan Terhadap Kejadian Gizi Kurang Pada Anak Sekolah Dasar. *Jurnal Ilmu Kesehatan Masyarakat*, 15(3), 210–219. https://doi.org/10.26553/jikm.2024.15.3.210-219.

Rorong, A. P. (2019). Hubungan Antara Status Sosial Ekonomi Keluarga Dengan Status Gizi Anak Sekolah Dasar. *E-Journal Of Sam Ratulangi University*, 7(3), 45–50. Https://ejournal.unsrat.ac.id/ index.php/ jikmu/article /view/24100.

Sebataraja, l. R., Oenzil, F., & Asterina. (2014). Hubungan status gizi dengan status sosial ekonomi keluarga murid sekolah dasar. *Jurnal kesehatan andalas*, 3(2), 180–185. Https://jurnal.fk.unand.ac.id/ index.php/jka/ article/view/280.

Siregar, M. F., & Hidayat, T. (2026). Pengaruh Fluktuasi Pendapatan Keluarga Dan Literasi Gizi Orang Tua Terhadap Status Antropometri Anak Usia Sekolah Di Era Pasca Pandemi. *Jurnal Kesehatan Komunitas*, 12(1), 33–41. Https://doi.org/10.25311 /jkk.vol12.iss1.1520.

UNICEF. (2024). *Nutritional Status Of Primary School-Age Children And Its Determinants In Central Java*. Jakarta: UNICEF Indonesia. https://www.unicef.org/indonesia/reports.

World Health Organization. (2024). *School-Age Child Health, Nutrition, And The Social Determinants Of Health: Regional Updates For Southeast Asia*. Geneva. WHO Press. Https://www.who.int/publications/i/item/school-age-nutrition-searo-2024.

Yusra, Zalmadani, Rahmiwati, & Seventri. (2024). Hubungan Antara Status Sosial Ekonomi Keluarga Dengan Status Gizi Anak Usia Sekolah. Ashiha. *Jurnal Kesehatan Andalas*, 5(1), 12–19. Https://ashiha.stikes-pialasakti.ac.id/ index.php/ashiha/article /view/45.