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OVERVIEW OF THE NUTRITIONAL STATUS OF TODDLERS IN THE COASTAL AREA OF BENGKULU CITY IN 2023

Sekar Desvira Rima Rahmadani[1], Kurnia Dewiani[2], Dara Himalaya[3], Sri Nengsi Destriani[4]
[1,2,3,4,]*Diploma Program in Midwifery, University of Bengkulu, Bengkulu City, Indonesia*
Corresponding author: *kdewiani@unib.ac.id*

ABSTRACT

Children under the age of five (under-fives) are particularly vulnerable to nutritional issues, especially in coastal areas where social, cultural, economic, educational, and hygiene factors play significant roles. The nutritional status of under-fives is influenced by several factors, including exclusive breastfeeding, maternal education and knowledge, family income, and the child's history of infections. Poor nutrition negatively impacts growth, leading to stunted height and weight, impaired brain development, reduced intelligence, and increased susceptibility to infections. This study employed a descriptive analytic method with purposive sampling. The analysis used univariate analysis to examine the frequency distribution of nutritional status and the characteristics of the children. The results showed that 85.8% of the children had good nutritional status, 11% were undernourished, and 3.2% were severely malnourished. In conclusion, the majority of children in the coastal areas of Bengkulu City were found to have good nutritional status.

Keywords: Factors, Nutrition, Under-fives

1. INTRODUCTION

Coastal areas are transitional zones between terrestrial and marine ecosystems, influenced by changes on both land and sea (Marine and Fisheries Service, 2020). These areas have distinct characteristics compared to other regions, which often result in specific challenges, including nutritional issues. Nutritional problems in coastal communities are closely related to social, cultural, economic, educational, and hygiene factors. These issues often arise due to poverty, lack of education, and insufficient food availability. The primary cause of malnutrition is inadequate nutrient intake, either from a lack of access to nutritious food or from the consumption of food lacking essential nutrients. Additionally, environmental health issues can lead to infections that exacerbate malnutrition. Nutritional problems frequently begin at birth, often due to insufficient breastfeeding and unhealthy living conditions during pregnancy. As a result, children in these areas may suffer from malnutrition, marked by symptoms such as thinness, irritability, sunken stomachs, and wrinkled skin, characteristic of marasmus (Elisa, 2021).

Coastal areas are rich in fish and other marine products, which could serve as excellent sources of protein if properly utilized. However, many of these resources are sold to other regions for higher profits, often at the expense of local health. Knowledge about nutrition remains inadequate, and the socio-economic status of families further complicates the issue. Not all coastal residents work as fishermen; many are employed as laborers, with much of the catch being sold to meet basic needs (Handayani, 2022).

The sale of fish for economic survival is a major contributor to the nutritional issues in coastal regions, particularly affecting young children. Under-fives, children under five years old, experience rapid growth during the first year of life, with their weight doubling by five months and tripling by their first birthday. By the age of two, a child's weight is typically quadrupled. Growth slows during the preschool years, with an average annual weight gain of approximately two kilograms. Nutrition is a critical factor influencing this growth, as it provides the essential nutrients required by the body. Nutritional status refers to the body's condition as a result of food intake and its utilization (Hasdianah, 2017).

According to the Indonesian Ministry of Health's Regulation No. 2 of 2020 on child anthropometric standards, nutritional status is classified by body mass index based on age (BMI/A), ranging from severely wasted (severe malnutrition), wasted (malnutrition), normal, at risk of overweight, overweight, to obese (Permenkes RI, 2020).

The 2021 Community-Based Nutrition Recording and Reporting Application (e-PPBGM) survey reported that, based on height-for-age (H/A), 0.9% of under-fives were severely malnourished, while 4.0% were moderately malnourished. West Papua had the highest prevalence of malnutrition, while Bengkulu Province had the lowest, although the issue still requires attention to prevent future problems (Ministry of Health, 2021).

In 2021, data from Bengkulu Province's e-PPBGM application showed that 0.14% of under-fives were severely malnourished, 1.2% were moderately malnourished, 89.2% had normal nutritional status, 7.32% were at risk of overweight, 1.67% were overweight, and 0.47% were obese (Bengkulu Provincial Health Office, 2021). Various factors influence the nutritional status of children, including

direct factors such as breastfeeding practices. Exclusive breastfeeding is linked to maternal education, with better-educated mothers more likely to understand child health and proper care (Septikasari, 2018).

Breastfeeding history is a significant factor in the nutritional status of children. Previous research indicated that 94.87% of children who were exclusively breastfed had normal nutritional status, while 62.5% of children who were not exclusively breastfed had poor nutritional status, showing a significant correlation (Hanifah, 2020). However, a study in Manado found no significant relationship between exclusive breastfeeding and nutritional status, with 50.6% of exclusively breastfed children having good nutritional status, compared to 44.4% of non-exclusively breastfed children (Panese, 2020).

Infectious diseases also play a role in the nutritional status of children, as they can disrupt appetite and lead to malnutrition. Research indicated that 39.2% of well-nourished children had no history of infections, while 33.0% of those with infections had good nutritional status. Among malnourished children, 19.6% had a history of infections (Carolin, 2018). Children with a history of infections were 2.010 times more likely to be malnourished (Trisutrisno, 2022).

Education indirectly influences a child's nutritional status, as it affects a mother's knowledge. Research shows that mothers with poor knowledge are four times more likely to have undernourished children, and mothers with lower education levels are three times more likely to have undernourished children (Nurmaliza, 2019). Another study found a correlation between maternal knowledge and education, with 50% of respondents having poor knowledge due to low educational attainment (Kristiani, 2021).

Economic factors, particularly family income, also affect nutritional status. A study at Peudada Public Health Center showed that low-income families had higher rates of malnutrition, with 3.5% of respondents having severely malnourished children, 32.9% moderately malnourished, and 2.4% normal (Nasution, 2022). Conversely, a study in Demak found no relationship between income and nutritional status, with malnourished children from high-income families accounting for 1.4% of cases (Afifah, 2019).

Preliminary data from the 2021 Bengkulu City Health Profile revealed that there were 30,201 under-fives in Bengkulu City. Seven public health centers are located in the coastal region, including Kampung Bali, Pasar Ikan, Padang Serai, Kuala Lempuing, Beringin Raya, Kandang, and Penurunan health centers. These centers face significant challenges related to child nutrition, with Kampung Bali Health Center serving 640 under-fives, Pasar Ikan 1,046, and Penurunan 818.

Based on the above, this study aims to provide an overview of the nutritional status of under-fives in the coastal areas of Bengkulu City in 2023.

2. METHODS

This study employs a descriptive research design aimed at providing an overview of the nutritional status of under-fives in three health centers: Kampung Bali, Penurunan, and Pasar Ikan in Bengkulu City in 2023. The population for this study includes all mothers with children aged 1-5 years in the working areas of these health centers, with a total of 2,504 under-fives. The sampling method used is purposive sampling, which involves selecting samples based on specific criteria. The sample size was determined using the Taro Yamane/Slovin formula, resulting in a sample of 126 under-fives. Data were

collected using a structured questionnaire distributed via Google Forms. Mothers were asked about their knowledge of nutritional status, along with details regarding their child's health and breastfeeding history. Anthropometric measurements (height and weight) of the under-fives were taken using: A height or length measurement tool (measuring tape). A weight measurement tool (scale). Writing materials (books, pens). A smartphone for data entry.

Univariate analysis was conducted to describe the distribution of key variables: mother's education, mother's knowledge, parent's income, history of infection, exclusive breastfeeding, and nutritional status. The results were presented in the form of frequency distribution tables.

The study was conducted in Bengkulu City, specifically in the Kampung Bali, Pasar Ikan, and Penurunan Health Centers, from February to April 2023.This research adhered to ethical principles and received ethical approval under reference number KEPK.BKL/222/05/2023. All respondents were informed about the study's objectives, and their consent was obtained before participation. The privacy and confidentiality of participants were maintained throughout the study.

3. RESULTS

The study was conducted at three healthcare centers in Bengkulu: Puskesmas Penurunan, Puskesmas Kampung Bali, and Puskesmas Pasar Ikan.

Table 1. Frequency distribution of toddler characteristics in the coastal areas of Bengkulu City, 2023

Characteristics	Frequency (f)	Percentage (%)
Exclusive Breastfeeding History		
1. Yes	104	82,5 %
2. No	22	17, 5%
Infection History		
1. Yes	103	81,7 %
2. No	23	18,3%
Mother's Education		
1.Elementary School	5	4 %
2. Middle School	5	4 %
3. High School	72	57,1%
4. Higher Education	44	34,9 %
Knowledge		
1. Good	71	56,3 %
2. Sufficient	41	32,5 %
3. Poor	14	11,1%
Income		
1. High	70	55,6%
2. Low	56	44,4 %

Table 1. outlines the frequency distribution of toddler characteristics in the coastal areas of Bengkulu City. It reveals that 104 toddlers (82.5%) received exclusive breastfeeding. In the past month, a significant number of toddlers, 103 (81.7%), suffered from infectious diseases. The mothers' education level was predominantly high school (57.1%), while 34.9% of mothers had a college education. A minority of mothers had completed middle school or elementary school, at 4% each. In terms of knowledge, 71 respondents (56.3%) were categorized as having good knowledge, 41 (32.5%) had sufficient knowledge, and 14 (11.1%) had poor knowledge. Furthermore, 55.6% of respondents came from families with high income.

Table 2. Nutritional status distribution of toddlers in the coastal areas of Bengkulu City, 2023

Nutritional Status	Frequency (f)	Percentage (%)
1.Good Nutrition	108	85.7%
2.Undernutrition	14	11.1%
3. Malnutrition	4	3.2%

Table 2. illustrates the nutritional status of toddlers in the coastal areas of Bengkulu City. A total of 108 toddlers (85.7%) were classified as having good nutrition, 14 (11.1%) were undernourished, and 4 (3.2%) were categorized as malnourished.

4. DISCUSSION

Based on the results of this study, it was found that 82% of the under-fives were exclusively breastfed, while 18% were not. This finding is consistent with previous research, where 53.23% of under-fives were exclusively breastfed, and 46.77% were not. Exclusive breastfeeding plays a crucial role in a child's nutritional status, as it provides all the necessary nutrients and antibodies to protect the child from infections. A previous study by Zulmi (2019) showed that children who were not exclusively breastfed had an 8-fold higher risk of experiencing poor nutritional status. Similarly, Septikasari (2018) found that children not exclusively breastfed were 2.6 times more likely to experience malnutrition, highlighting the significant impact of breastfeeding on a child's health.

However, these findings differ from those of Maesarah (2021), who argued that exclusive breastfeeding does not directly affect a child's nutritional status. According to this perspective, adequate nutrition intake during childhood, regardless of breastfeeding history, can still support healthy growth and development. This suggests that other factors, such as food intake and overall health, also play a vital role.

Regarding infectious diseases, 81.8% of the children in this study had experienced an infection in the last month, while 18.2% had not. Previous research reported lower infection rates, with 29.5% of children experiencing infections. This finding aligns with Usman (2021), who found that infectious diseases do not always influence nutritional status, especially when infections are mild, and mothers respond quickly. However, research by Trisutrisno (2022) showed that children with a history of infections were 2.01 times more likely to suffer from malnutrition, emphasizing the need for careful monitoring of children's health.

In terms of maternal education, most mothers in this study had completed high school (57%), followed by college (35%), with only a small percentage having lower levels of education. This result is similar to Maesarah's (2021) findings, where 42.1% of mothers had completed high school. Education plays a critical role in shaping nutritional knowledge and practices, as highlighted by Nurmaliza (2019), who found that mothers with lower education levels were three times more likely to have children with malnutrition. Yazeedi (2021) also emphasized that parents with higher education levels tend to have healthier nutritional practices, underlining the importance of maternal education in child nutrition.

The study also revealed that 56% of respondents had good knowledge of nutrition, 33% had moderate knowledge, and 11% had poor knowledge. This contrasts with previous studies, such as one by Nurmaliza (2019), which found that mothers with poor nutritional knowledge were four times more likely to have malnourished children. Ariani (2017) pointed out that mothers with good knowledge provide balanced nutrition, contributing to optimal growth and development. Therefore, improving maternal knowledge is key to addressing nutritional issues in children.

Economic status is another factor influencing nutritional status. In this study, 55.6% of respondents had high household

income, while 44.4% had low income. Pibriyanti (2019) found that low-income families had a 15.3 times greater risk of malnutrition. Higher income allows families to access better food and meet nutritional needs. However, some research, such as Afifah (2019), suggests that income alone does not guarantee improved nutrition, as other factors like household budgeting also influence food choices. Families may prioritize other needs over nutrition, even with higher income, which can affect the child's nutritional status.

Finally, the overall nutritional status of under-fives in this study showed that 85.7% had good nutritional status, 11.1% were malnourished, and 3.2% were severely malnourished. This result is consistent with research by Amalia (2020), which found that 88.1% of under-fives had good nutritional status. Although the percentage of malnourished children is relatively low, it still indicates that interventions are needed to address the root causes of malnutrition, particularly in coastal areas where access to nutrition and healthcare may be limited.

In conclusion, this study highlights the importance of breastfeeding, maternal education, economic status, and knowledge in determining the nutritional status of under-fives in coastal areas of Bengkulu City. Comprehensive strategies involving these factors are essential to improve child health and reduce malnutrition in these communities.

5. CONCLUSION

This study concludes that the nutritional status of toddlers in the coastal areas of Bengkulu City is predominantly categorized as good, with 85.8% of children falling into this category. A high rate of exclusive breastfeeding was observed, with 82.5% of toddlers receiving exclusive breastfeeding. Over the past month, 81.7% of toddlers experienced infectious diseases. The mothers' educational background was dominated by those with a high school education (57.1%), which aligns with the majority of mothers having good knowledge (56.3%) about child nutrition. Additionally, most families had relatively high incomes (55.6%), which could influence their ability to meet their family's nutritional needs.

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7. REFERENSI

Afifah, R., & Galia, W. A. (2019). Hubungan Tingkat Sosial Ekonomi Keluarga dan Pola Asuh dengan Status Gizi Balita di Desa Kedungori Kecamatan Dempet Kabupaten Demak. Prosiding Hefa, 121-130. Diunduh 06 Juli 2022, dari https://prosiding.stikescendekiautamakudus.ac.id/index.php/pros/article/view/366

Afrinis, N., Verawati, B., & Any, T. (2021). Analisis faktor yang berhubungan dengan status gizi balita usia 6-12 bulan pada masa pandemi COVID-19. *Jurnal Kesehatan Masyarakat*, 5(1), 304-310. Diunduh 21 Mei 2023, dari https://journal.unmuhpnk.ac.id/index.php/JKMK/article/view/1601-4268-1-PB.pdf

Amalia, D., & Luluk, R. (2020). Hubungan riwayat pemberian ASI eksklusif, kelengkapan imunisasi dasar, dan durasi sakit terhadap status gizi balita dari ibu pekerja pabrik di Kecamatan Grogol Kabupaten Sukoharjo. *Jurnal Teras Kesehatan*, 3(2), 1-9. Diunduh 22 Mei 2023, dari https://jurnal.politeknikalislam.ac.id/index.php/Jutek/article/view/34

Ariani, A. P. (2017). *Ilmu Gizi (Cetakan ke-1)*. Yogyakarta: Nuha Medika.

Carolin, B. T., Saputri, A. R., & Silawati, V. (2018). Analisis faktor yang mempengaruhi status gizi balita (12-59 bulan) di Puskesmas Sukadiri Kabupaten Tangerang. *Jurnal Ilmu dan Budaya*, 66, 7835-7846. Diunduh 08 Juli 2022, dari http://journal.unas.ac.id/ilmu-budaya/article/view/800

Dinas Kelautan dan Perikanan Kabupaten Kulon Progo. (2020). *Pengelolaan Wilayah Pesisir*. Kulon Progo.

Dinas Kesehatan Provinsi Bengkulu. (2020). *Profil Kesehatan Provinsi Bengkulu*. Bengkulu.

Dinas Kesehatan Provinsi Bengkulu. (2021). *Profil Kesehatan Provinsi Bengkulu*. Bengkulu.

Dinas Kesehatan Provinsi Bengkulu. (2021). *Profil Kesehatan Kota Bengkulu*. Bengkulu.

Eliska, R., & Dewi, A. H. (2021). *Gizi Masyarakat Pesisir (Edisi ke-1)*. Medan: Merdeka Kreasi.

Handayani, D., Erik, K., & dkk. (2022). Studi Korelasi Kejadian Stunting dengan Faktor Pengetahuan Ibu dalam Pengolahan Gizi pada Balita di Wilayah Pesisir. *Jurnal Keperawatan*, 14(S3), 885-890. Diunduh 15 Januari 2023, dari http://journal2.stikeskendal.ac.id/index.php/keperawatan/article/view/548

Hasdianah, Sandu, S., & Nurwijaya. (2017). *Gizi Pemantapan Gizi, Diet, dan Obesitas (Edisi ke-2)*. Yogyakarta: Nuha Medika.

Hanifah, L., & Sab'ngatun. (2020). Analisis Pemberian ASI Eksklusif Terhadap Status Gizi Balita. *Jurnal Kebidanan Indonesia*, 11(1), 116-123. Diunduh Januari 2022, dari https://www.jurnal.stikesmus.ac.id/index.php/JKebIn/article/view/332/280

Kementerian Kesehatan Republik Indonesia. (2021). *Profil Kesehatan Indonesia*. Jakarta: Kementerian Kesehatan RI.

Kristiani, Y., & Debi, N. (2021). Tingkat Pengetahuan, Pendidikan Ibu, dan Status Gizi Anak dengan Perkembangan Anak di Posyandu Bougenvile Kota Kupang. *Flambora Nursing Journal*, 1(1), 50-59. Diunduh 01 Desember 2022, dari https://jurnal.poltekeskupang.ac.id/index.php/fnj/article/view/660

Kurnia, J., Marlenywati, & Ridha, A. (2019). Faktor-faktor Risiko yang Berhubungan dengan Kejadian Gizi Buruk dan Kurang Pada Balita. *Jurnal Kesehatan Masyarakat Khatulistiwa*, 2(6), 61-69. Diunduh 23 Oktober 2022, dari https://openjurnal.unmuhpnk.ac.id/index.php/JKMK/article/view/1769

Maesarah, D., Herman, H., & dkk. (2021). Hubungan Pola Makan dan Riwayat ASI Eksklusif dengan Kejadian Stunting Pada Balita di Kabupaten Gorontalo. *Public Health Nutrition Journal*, 1(1), 50-58. Diunduh 22 Mei 2023, dari https://journal3.uinalauddin.ac.id/index.php/algizzai/article/view/19082

Nasution, R., Harahap, H., & Oktafirnanda, Y. (2022). Faktor yang Berhubungan dengan Status Gizi Balita di Wilayah Kerja Puskesmas Peudada Kecamatan Peudada Kabupaten Bireuen. *Jurnal Bidan Komunitas*, 5(2), 74-83. Diunduh 01 Desember 2022, dari http://ejournal.helvetia.ac.id/index.php/jbk/article/view/5203

Nurmaliza, & Herlina, S. (2019). Hubungan Pengetahuan dan Pendidikan Ibu Terhadap Status Gizi Balita. *Jurnal Kesmas Asclepius*, 2(1), 106-115. Diunduh 22 Juni 2022, dari https://journal.ipm2kpe.or.id/index.php/JKA/article/view/578

Panese, J., Kawengian, S., & Nova, H. (2020). Hubungan Antara Pemberian ASI Eksklusif dengan Status Gizi Pada

Anak Usia 24-59 Bulan di Wilayah Kerja Puskesmas Bahu Kota Manado. *Jurnal KESMAS,* 9(4), 146-151. Diunduh 01 Desember 2022, dari https://ejournal.unsrat.ac.id/index.php/kesmas/article/viewFile/29730/28795

Pibriyanti, K., Suryono, & Cut, A. (2019). Faktor-Faktor yang Berhubungan dengan Kejadian Stunting Pada Balita di Wilayah Kerja Puskesmas Slogohimo Kabupaten Wonogiri. *Darussalam Nutrition Journal*, 3(2), 42-29. Diunduh 22 Mei 2023, dari https://ejournal.unida.gontor.ac.id/index.php/nutrition/article/view/3398

Permenkes No. 20 Tahun 2020. Tentang Standar Antropometri Anak. Diunduh 01 Desember 2022, dari http://hukor.kemkes.go.id/uploads/produk_hukum/PMK_No_2_Th_2020_ttg_Standar_Antropometri_Anak.pdf

Septikasari, M. (2018). *Status Gizi Anak dan Faktor yang Mempengaruhi (Edisi ke-1).* Yogyakarta: Uny Press.

Sentongo, P., Anna, E., & Djibril, M. (2021). Global, Regional and National Epidemiology and Prevalence of Child Stunting, Wasting and Underweight in Low- and Middle-Income Countries, 2006–2018. *Scientific Reports*. Diunduh 28 Desember 2022, dari https://www.nature.com/articles/s41598-021-84302-w

Trisutrisno, I., Hasnidar, & Mustar. (2022). Hubungan Pendidikan Ibu, Konsumsi Makan, dan Riwayat Infeksi dengan Kejadian Stunting di Tapanuli Selatan. *Jurnal Suara Kesehatan*, 2(8), 14-22. Diunduh 03 Oktober 2022, dari https://journal.iskb.ac.id/index.php/journaliskb/article/view/63

Usman, S., Wa Ode, & Asriati. (2021). Evaluasi Kejadian Stunting Pada Balita Yang Memiliki Riwayat Diare dan ISPA di Puskesmas Rumbia. *Jurnal Ilmiah Obsgin*, 13(3), 11-19. Diunduh 23 Mei 2023, dari https://stikes-nhm.e-journal.id/JOB/article/view/410/373

Yazeddi, B., Diane, B., & Jamel, C. (2021). Family Influence on Children's Nutrition and Physical Activity Patterns in Oman. *Journal of Pediatric Nursing*. Diunduh 28 Desember 2022, dari https://www.sciencedirect.com/science/article/pii/S088