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Case Study Of A 31 Month Old Girl With Malnutrition (Stunting And Wasting) At The Babah Buloh Community Health Center In 2026

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ABSTRAK

Malnutrisi pada anak di bawah usia lima tahun masih menjadi tantangan utama dalam kesehatan masyarakat, terutama di negara berkembang. Kondisi ini ditandai dengan berat badan anak yang berada di bawah standar usia, dan dapat memengaruhi pertumbuhan fisik dan perkembangan kognitif dalam jangka panjang. Oleh karena itu, intervensi dini sangat penting untuk mencegah kondisi yang lebih parah seperti malnutrisi atau stunting. Studi ini bertujuan untuk mengevaluasi kasus balita perempuan berusia 31 bulan dengan malnutrisi yang dirawat di Puskesmas Babah Buloh, Kabupaten Aceh Utara. Status gizi dinilai menggunakan indikator Z-score WHO, yang mencakup data usia, berat badan, dan tinggi badan. Perawatan dilakukan melalui pemberian nutrisi yang adekuat, edukasi keluarga tentang pola makan seimbang, dan pemantauan pertumbuhan secara teratur. Hasil penelitian menunjukkan peningkatan status gizi pasien setelah intervensi, ditandai dengan peningkatan berat badan dan perbaikan kebiasaan makan. Hal ini menunjukkan pentingnya deteksi dini dan pengobatan yang tepat dalam mengatasi malnutrisi untuk meminimalkan dampak negatifnya secara efektif.
Kata kunci: Malnutrisi, bayi, Z-score, stunting, intervensi gizi

ABSTRACT

Malnutrition in children under five years of age remains a major challenge in public health, especially in developing countries. This condition is characterized by a child's weight being below the standard for their age, and can affect physical growth and cognitive development in the long term. Therefore, early intervention is very important to prevent more severe conditions such as malnutrition or stunting. This study aims to evaluate the case of a 31-month-old female toddler with malnutrition who was treated at the Babah Buloh Community Health Center, North Aceh Regency. Nutritional status was assessed using the WHO Z-score indicator, which includes data on age, weight, and height. Treatment was carried out through the provision of adequate nutrition, education for families on balanced diets, and regular growth monitoring. The results of the study showed an improvement in the patient's nutritional status after intervention, marked by weight gain and improved eating habits. This demonstrates the importance of early detection and appropriate treatment in overcoming malnutrition to effectively minimize its negative impacts.
Keywords: Malnutrition, infants, Z-score, stunting, nutritional intervention

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INTRODUCTION

Nutrition is a global health issue because it occurs in almost all parts of the world. Malnutrition will hinder the growth process in children. Children who experience growth problems will have lower intelligence levels, be more susceptible to infection, and be at risk of decreased productivity in the future, thereby hindering a country's economic growth (1). Therefore, countries must pay more attention to addressing current nutrition issues.

Nutritional status is a measure of the success in meeting children's nutritional needs. According to the WHO, there are three indicators of nutritional status that are monitored, namely weight for age, height for age, and weight for height. Weight is a general indicator of nutritional status because it correlates positively with age and height. Nutritional status is categorized into four categories: overnutrition, good, malnutrition, and severe malnutrition. This is based on the z-score or deviation from the standard indicators determined by the World Health Organization (WHO) (2).

There are many nutritional problems in toddlers, but the most prominent are stunting, wasting, and underweight, which are the culmination of various health and non-health problems that occur not only in toddlers but also in their surrounding environment and families. The environment in which toddlers live has a significant influence on their nutritional status and health (3). Stunting and underweight are major problems in malnutrition, which can cause children to experience short-term and long-term health problems. Stunting in toddlers can hinder their physical and mental development.

The issue of underweight also requires special attention because being underweight/severely underweight (or previously known as malnutrition/poor nutrition) is the beginning of more chronic nutritional problems such as stunting, where if left unchecked, underweight toddlers will fall into a worse nutritional status and even death.

Therefore, comprehensive and integrated management is needed to address inadequate energy and nutrient intake. Family doctors have a strategic role in managing health services to help reduce and prevent factors that contribute significantly to stunting and underweight problems.

Case Report

Patient Identity

Name : An. AN

Gender : Female

Date of Birth/Age : 12 June 2023 (31 months)

Child : 3 of 4 siblings

Religion : Islam

Nationality : Indonesia

Ethnicity : Acehnese

Last Education : Not yet in school

Adress : Lagang Village, Sawang District, North Aceh Regency, Aceh Province

Date of Examination : 06 February 2026

Date of Home Visits : 06 February, 09 February, 13 February 2026

Anamnesis

Main Complaint

Difficulty gaining weight.

Additional Complaints

Loss of appetite, frequent coughing, runny nose, and stunted growth.

Current Medical History

Based on the anamnesis with the patient's mother conducted during several home visits, it was found that the patient is a 31-month-old child who has had difficulty eating and gaining weight since around 6 months of age. The patient's mother complained that since that age, the patient has shown a decrease in appetite, often refuses food, and only consumes very small amounts of food.

The history of breastfeeding shows that the patient was breastfed from birth to 2 years of age. The history of complementary feeding shows that at 6–9 months of age, the complementary feeding given was very limited, consisting only of bananas with insufficient frequency and portion sizes. After >9 months of age, the patient began to be given rice, but without adequate variety of side dishes. This inadequate eating pattern from an early age has resulted in the patient's energy and protein intake being insufficient for a long period of time.

The patient's mother stated that the patient had received F100 nutritional therapy from a health facility due to nutritional problems, but the patient refused to consume it, so the nutritional intervention was not optimal. To date, the patient's appetite remains poor even though the patient appears physically active.

The medical history shows that the patient often experiences mild coughs and colds, but without high fever or chronic diarrhea. This indicates that infection is not the main cause of the patient's nutritional condition.

The immunization history shows that the patient only received polio immunization, while other basic immunizations were not given. The pregnancy history shows that the patient's mother only made four ANC visits, all of which were to a midwife. There was no history of serious illness during pregnancy. The patient was born at full term with a birth weight of 3,000 grams and cried immediately after birth.

The growth and development history shows that the patient is active and able to perform activities appropriate for his age, but anthropometrically, the patient appears shorter and thinner than other children his age. This condition is consistent with stunting and wasting due to prolonged malnutrition.

The patient lives in Sawang District, Aceh, with her parents. The patient's father works as a casual laborer with an irregular income, while her mother is a housewife. The family's socioeconomic status is low. The neighborhood has toilets, and drinking water comes from boiled water. The distance between houses is about 2 meters, reflecting a fairly high population density.

Based on the results of the latest anthropometric measurements, the patient has a very low weight for his age, a height below the age standard, and a low weight for his height, so the patient was diagnosed with malnutrition with stunting and wasting.

Past Medical History

- History of fever accompanied by recurrent cough and cold
- History of congenital disease denied
- History of measles denied
- History of food allergies denied
- History of trauma denied

History of Medication Use

The patient's mother said that the patient had used paracetamol for fever and cough and cold medicine, but she forgot the names of the medicines. The medicines were obtained from a midwife.

Family Medical History

According to the family, their fourth child was malnourished.

Pregnancy and Delivery History

Based on the patient's mother's health records during pregnancy, she had 4 routine antenatal checkups with a midwife. The patient is the third of 4 children, born via normal delivery at full term, crying immediately after birth, with a birth weight of 3000 grams.

Diet History

The patient's mother stated that the patient was breastfed from birth until the age of 2 years. At 6 months of age, the patient began to be given complementary foods in the form of bananas, and at 9 months of age, the patient began to be given family meals in the form of soft rice. However, initially, the patient only wanted rice with salt, but now the patient occasionally accepts side dishes such as fish, chicken, eggs, and boiled vegetables.

Growth and Development History

The patient's growth and development are appropriate for his age.

Immunization History

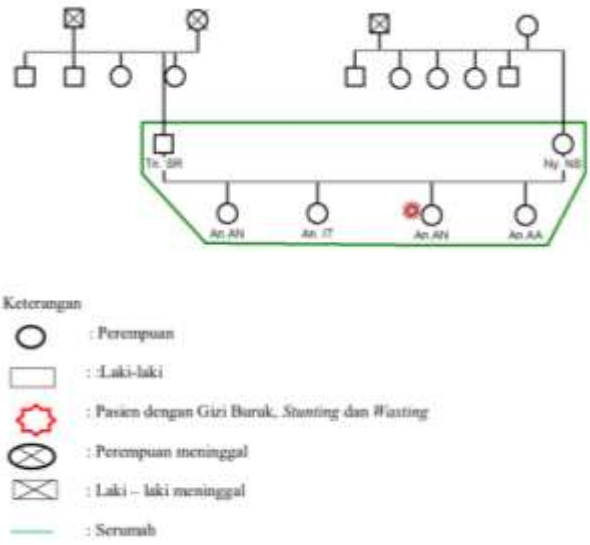
According to the patient's mother, the patient has received three immunizations, namely polio immunizations when the patient was 6 months, 7 months, and 8 months old.

Socioeconomic History

The patient's father (Mr. SR) is a farmer. The patient's mother (Mrs. NS) is a housewife. The first child (An. AN, female, 14 years old), the second child (An. IT, female, 9 years old), the third child (An. AN, female, 31 months old), and the fourth child (An. AA, female, 1 month old) live with both parents. Daily income comes from the patient's father's earnings. Total income is irregular, ranging from IDR 500,000 to IDR 1,000,000 per month.

Family Profile

The patient, An. AN, 31 months old, is the child of Mr. SR and Mrs. N S . The patient is the third child. The patient lives with both parents.



Patient's Consumption Pattern

The patient's eating pattern is reported to be irregular, with inconsistent meal schedules every day. The patient also tends to prefer snacks over the main meals prepared at home. The patient eats about 2-3 times a day, without a fixed meal schedule. When the patient's appetite is good, she is able to finish about one serving of rice. However, when her appetite decreases, her intake of solid food decreases and she is only given formula milk as a substitute for main meals.

The types of food consumed by the patient are rice with simple side dishes such as fish, eggs, or tempeh, without sufficient menu variety. The patient also only consumes water as a daily beverage. This eating pattern indicates that the intake of energy and macro and micro nutrients is likely not adequately fulfilled, in terms of quantity, variety, and frequency, which could potentially contribute to the patient's poor nutritional status and stunting.

Physical Examination

Present Status

General condition: Good Consciousness

Vital Signs: Compos mentis

Vital Signs

Pulse: 100 beats/minute, regular rhythm

Respiration: 24 breaths/minute

Temperature : 36,5 ^{o}C

Antropometri Measurement

Age: 31 months

Weight: 7,900 g

Height: 79 cm

Upper arm circumference: 14 cm

Head circumference: 48 cm

Nutritional status based on Z-score:

- TB/U: < -3 SD → Severely Stunted
- BB/U: < -3 SD → Severely Underweight
- BB/TB: < -3 SD → Severely Wasted
- IMT/U: < -3 SD → Severe Thinness

General Status

Head	Symmetrical, normocephaly, straight black hair easily pulled out
Face	Edema (-), dark brown skin
Eye	Anemic conjunctiva (+/+), icteric sclera (-/-), palpebra edema (-/-), ptosis (-/-), exophthalmos (-/-)
Ear	Normotia (+/+), secretions (-/-)
Nose	Simetrical (+), secretions (-/-)
Mouth	Pale mucous membranes of the lips (-) cyanosis (-)
Neck	Symmetrical, thyroid enlargement (-), KGB enlargement (-)
Thorax	**Lung** Inspection: Normochest, symmetrical Palpation: Normal stem fremitus (right = left) Percussion: Sonorous in both lung fields Auscultation: Vesicular (+/+), wheezing (-/-), rhonchi (-/-) **Heart** Inspection: Ictus cordis not visible Palpation: Ictus cordis palpable Percussion: Not performed Auscultation: Murmur (-), gallop (-)
Abdomen	Inspection: Distension (–), venous distension (–) Palpation: Supple (+) Percussion: Tympanic Auscultation: Peristalsis (+)
Genitalia	Not examined
Ekstremities	Warm extremities (+/+), cyanosis (–)

Environmental History

1) The patient's house is privately owned and measures 6 x 6 m, consisting of 1 living room, 3 bedrooms, and a kitchen. The walls of the house are made of semi-concrete, the roof is made of zinc, and the floor is made of cement. There are 6 windows. The patient's family home has 2 amperes of electricity.
2) The bathroom and toilet are located outside the house. There is a garbage disposal area, and garbage is routinely burned behind the patient's house.
3) Clean water comes from a well with clean water, which is also used for washing and drinking.
4) The distance from the house to the health center is approximately 12 km.

Recommended Supporting Tests

Recommended supporting tests:

- Routine blood test
- Stool test

- Electrolyte test

Diagnosis

Severe Underweight, severe stunted and severe wasting

Managemet

Promotive

1. Provide education about malnutrition, including symptoms and complications that may arise.

Education about malnutrition and stunting is important to increase families' understanding of these conditions, including early symptoms such as weight loss, weakness, loss of appetite, or stunted growth in children. Families also need to be aware of the complications that can arise if malnutrition is left untreated, such as developmental disorders, decreased immunity, and a high risk of infection and chronic disease. The aim of this education is to make families more vigilant and prompt them to take action as soon as symptoms appear.

2. Advise family members to consume a variety of foods to increase the patient's appetite and eat a balanced diet in accordance with the General Guidelines for Balanced Nutrition.

Families are encouraged to provide a variety of foods in terms of color, taste, and type. A varied diet can stimulate appetite and ensure that nutritional needs are met from a variety of sources. The General Guidelines for Balanced Nutrition (PUGS) emphasize the importance of consuming staple foods, side dishes, vegetables, fruits, and sufficient water, with balanced portions according to age and individual energy needs.

3. Provide education on how to manage the right diet, schedule, and portion sizes according to the calories needed by the patient.

A good diet includes regular meal times, a pattern that is appropriate for age and calorie needs, and the distribution of main meals and snacks throughout the day. This education aims to enable families to develop a consistent meal schedule for patients, especially children, taking into account energy and nutrient adequacy. A regular diet also helps improve the body's metabolism and optimize nutrient absorption.

4. Provide explanations on how to treat malnutrition by changing the attitudes and behaviors of family members.

Treating malnutrition does not only focus on food, but also requires changes in family behavior in terms of care and lifestyle. Families need to be more concerned about their children's condition, maintain personal and environmental hygiene, and avoid behaviors that can cause the transmission of infectious diseases. Families are expected to be more concerned about hygiene and the surrounding environment to prevent infectious diseases that can affect children's immunity and nutrition.

5. Encourage families to visit the health center every month to monitor their children's weight and height and to visit the community health center to get treatment when patients are sick.

Educate families to bring their children to the health center every month for early detection of nutritional and growth problems. By knowing the weight and height charts every month, families can take immediate action if there is a decline or stagnation. In addition, visits to the health center when children are sick are also necessary to get proper medical treatment and prevent further complications due to malnutrition.

6. Provide explanations about clean and healthy living behaviors, healthy toilets, and the 3M program.

Clean and Healthy Living Behaviors (PHBS) are an important part of preventing diseases that can worsen nutritional status. Education includes habits such as washing hands with soap, using healthy toilets, and maintaining environmental hygiene. In addition, the implementation of the 3M program (Draining, Covering, and Recycling) in the prevention of environment-based diseases such as dengue fever.

Preventive

1. Conduct screening examinations.

Screening or routine examinations are very important in the early detection of nutritional problems, especially in children and vulnerable family members. Examinations such as periodic weight and height measurements can provide an overview of an individual's nutritional status. With regular monitoring, families and health workers can immediately identify growth disorders or the risk of malnutrition, so that early intervention can be carried out to prevent long-term complications.

2. Implementing clean and healthy living behaviors (PHBS).

Clean and healthy living behaviors (PHBS) are important preventive measures to avoid various infectious diseases that can worsen a person's nutrition. PHBS includes habits such as washing hands with soap, maintaining food hygiene, using clean water, disposing of garbage properly, and using healthy toilets. By implementing PHBS, families not only maintain environmental hygiene, but also help maintain their immune system so that they are not susceptible to diseases related to malnutrition.

3. Encourage patients to get immunized and explain the benefits and side effects of immunization.

Immunization is a very effective disease prevention measure, especially for children who are at risk of serious complications if infected. Immunization according to schedule can protect the body from various infectious diseases, such as measles, polio, and hepatitis, which can worsen nutritional status. In addition, it is also important to educate families about the benefits and possible side effects so that there are no misunderstandings and immunization can be carried out with full awareness and support from the family.

4. Seek treatment as early as possible if the patient is sick.

Prompt and appropriate treatment can reduce morbidity and increase the productivity of all family members. In addition, prompt and appropriate treatment can prevent recurrent infections that can further reduce nutritional status.

Curative

a. Schedule and diet based on ideal body weight requirements.

b. Provision of nutritious staple foods

Rehabilitative

a. Administration of F100 for 7 days.

b. Administration of meals with a varied and nutritionally balanced menu.

c. Monitoring of growth and development at each monthly visit to the health center.

Prognosis

a. Quo ad vitam : dubia ad bonam (baik)

b. Quo ad sanationam : dubia ad bonam (baik)

c. Quo ad functionam : dubia ad bonam (baik)

RESULTS AND DISCUSSION

Patient An. AN, a 31-month-old girl, is the third child of a married couple, Muslim, Acehnese, residing in Lagang Village, Sawang District, North Aceh Regency. Based on alloanamnesis with the patient's mother conducted during several home visits, it was found that the patient had difficulty eating and gaining weight since she was about 6 months old. The patient's mother complained that since that age, the patient had begun to show a decrease in appetite, often refused food, and only consumed very small amounts of food.

The history of breastfeeding showed that the patient was breastfed from birth to 2 years of age. Complementary foods given at 6-9 months of age were very limited, consisting of bananas with insufficient frequency and portions. After the age of >9 months, the patient only began to receive rice, but without adequate variety of side dishes. Inadequate eating patterns from an early age caused the patient's energy and protein intake to be insufficient for a long period of time. The patient's mother stated that the patient had received F-100 nutritional therapy from a health facility, but the patient refused to consume it, so the nutritional intervention was not optimal. To date, the patient's appetite remains poor despite appearing physically active.

The medical history indicates that the patient does not frequently experience severe or recurrent infections. Occasionally, the patient experiences mild coughs and colds, but these are not accompanied by high fever or chronic diarrhea, so infection is not the primary cause of the patient's nutritional condition. The immunization history shows that the patient has only received polio immunization, while other basic immunizations have not been administered.

The pregnancy history shows that the patient's mother had 4 antenatal care (ANC) visits at a midwife, and there was no history of serious illness during pregnancy. The patient was born full-term through normal delivery at a midwife with a birth weight of 3000 grams, and the baby cried strongly

immediately after birth. The growth and development history shows that the patient is active and able to perform activities appropriate for his age, but anthropometrically he appears shorter and thinner than other children his age, consistent with stunting and wasting due to long-term malnutrition.

The patient's father works as a casual laborer with an irregular income, while the mother is a housewife. The family's socioeconomic status is classified as low. The living environment has a toilet, and the source of drinking water is boiled water. The distance between houses and neighbors is about 2 meters, reflecting a fairly high population density.

On physical examination on February 6, 2026, the patient's general condition appeared good with compos mentis consciousness. Vital signs were within normal limits: temperature 36.5°C, pulse 100 beats/minute, regular rhythm, and respiratory rate 24 breaths/minute. Anthropometric measurements: weight 7.9 kg, height 79 cm, arm circumference 14 cm, head circumference 48 cm. Based on nutritional status assessment, the patient was classified as severely stunted (TB/U < −3 SD), severely underweight (BB/U < −3 SD), severely wasted (BB/TB < −3 SD), and severely thin (IMT/U < −3 SD). In general, the child appeared thin and short.



Figure 3. 1 Problem Priority Framework

Influencing Factors:

1) Parenting Practices

Parenting practices, especially those of the mother, play an important role in determining the child's nutritional status. In this case, feeding practices were found to be inconsistent with age recommendations, characterized by a lack of exclusive breastfeeding, early use of formula, and a lack of variety in complementary foods. Feeding history shows that children have difficulty eating and tend to consume only rice without side dishes, resulting in inadequate intake of nutrients, especially protein and micronutrients. In addition, mothers tend to follow their children's wishes when they refuse to eat without providing nutritious alternatives, which contributes to malnutrition and growth disorders.

Malnutrition in toddlers can be caused by parenting practices, especially those of mothers, which are a factor in incorrect food choices. The selection of food ingredients, the availability of sufficient food, and food diversity are influenced by mothers' level of knowledge about food and nutrition (9). Nutritional improvement begins in the family, where mothers play a role in managing the family's food. Therefore, mothers are the primary target for improving nutrition in the family. This aims to change the mothers' incorrect parenting practices that lead to the risk of malnutrition (10).

Malnutrition and severe stunting are related to mothers' attitudes towards food. Attitudes towards food are also related to eating habits, community culture, beliefs, and food choices. In addition, other multifactorial causes include mothers' nutritional knowledge, low family awareness of nutrition (KADARZI), and parents' clean and healthy living behaviors (11). Eating habits include food consumption (quantity and quality), preferences for certain foods, beliefs, taboos, or attitudes towards certain foods. Some eating habits are good or can support adequate nutrition, while others are bad (can hinder adequate nutrition), such as taboos or restrictions that are contrary to nutritional concepts. Problems that can cause malnutrition are insufficient nutritional knowledge and a lack of understanding of good eating habits. Eating habits in the household are important to pay attention to, because eating habits influence food selection and use, which in turn influences the quality of household food (12).

Poor nutrition in toddlers can be caused by the attitudes or behaviors of mothers, which are factors in incorrect food choices. The selection of food ingredients, the availability of sufficient quantities of food, and the diversity of food are influenced by the mother's level of knowledge about food and nutrition. A mother's lack of knowledge can lead to incorrect food choices, especially for toddlers, resulting in insufficient nutrients in terms of quality and quantity to meet the body's needs. This can be seen in the patient's family in this case, who did not meet the patient's daily nutritional needs, fed the child improperly, and had inadequate knowledge about balanced nutrition. This is evidenced by the fact that when the patient did not want to eat, the patient's mother did not try to provide other nutritious foods but instead chose to give the child foods that he wanted without considering their nutritional content (12).

2) Parental Knowledge

The mother's lack of knowledge about nutrition and hygiene is one of the causes of child malnutrition. Mothers play a dominant role in determining children's consumption patterns and care. Parental education, both formal and informal, is expected to improve understanding of nutrition and child care. The higher the mother's education, the better her ability to provide healthy and nutritionally balanced meals for the family.

The level of education greatly influences a person's ability to understand and accept information (13). Parents with low education levels are more likely to maintain traditions related to food, such as certain dietary restrictions, making it difficult for them to accept new knowledge about nutrition (14).

Parents with a good education will understand how to care for their children properly, use health services effectively, and maintain a clean environment (15).

A mother's education is closely related to her child's nutritional status because mothers directly care for their children, including preparing and providing food for them. However, a mother's high level of education does not necessarily reduce the risk factors for malnutrition in children. This may be because a mother's high level of education does not necessarily mean that she has good knowledge of child care, especially in meeting her child's nutritional needs. Someone who has only completed elementary school will have different nutritional knowledge compared to someone who is more highly educated. However, this does not mean that someone who has only completed elementary school is less capable of preparing meals that meet nutritional requirements. Mothers who diligently read information about nutrition or participate in nutrition education are not impossible to have better knowledge about nutrition even if they have a low level of education (16). Nevertheless, mothers with higher levels of education will certainly find it easier to receive messages and information (17). The higher a person's level of education, the easier it is for them to understand information and implement their knowledge in their behavior, especially in terms of health and nutrition (18).

On the one hand, education has a positive impact in that mothers become more aware of the importance of health maintenance, such as meeting the nutritional needs of their families. On the other hand, higher education also has an impact on social values, which can influence healthy lifestyles, including food consumption. Highly educated mothers are more likely to work outside the home, which reduces the time they have to prepare nutritious meals. This results in the selection of fast food, which is often given to children and does not meet their nutritional needs.

Mothers' low knowledge of nutrition increases the risk of malnutrition ninefold because their level of knowledge greatly influences their attitudes and behavior in choosing food for consumption, which in turn affects the nutritional status of their toddlers. Education and health counseling will increase mothers' knowledge. The steps that must be taken to overcome the problems of malnutrition and poor nutrition are to provide counseling or assistance at health posts to families with toddlers, so that parents pay more attention to good parenting practices. Growth monitoring followed by follow-up in the form of counseling, especially by health workers, has an impact on children's growth. Utilization of health facilities such as weighing toddlers, providing vitamin A supplements, treating diarrhea with oral rehydration solution, and immunization (19,20).

In addition, face-to-face counseling for pregnant women and mothers with toddlers needs to be increased because such counseling is more effective than group counseling. Officials must be more proactive in motivating and encouraging parents to be more creative in providing food for their babies, and firmness from officials is very important in dealing with malnutrition problems. Parents who do not make good use of Supplementary Feeding (PMT) must be reprimanded and given warnings (21,22). In

overcoming malnutrition, village heads must play a role, as they are obliged to motivate cadres and mobilize the community so that every nutritional problem is reported to the village head. In addition, it is necessary to improve skills and knowledge, provide training to midwives on counseling techniques for pregnant women, and hold creativity competitions for pregnant women in providing menus for toddlers (21,22).

After the provision of health education/counseling, it is hoped that there will be a change in the attitudes and behavior of mothers due to the increase in information obtained, in accordance with the objective of health education, which is to encourage the community to behave in a healthy manner (21,22).

3) History of Infection

Infection has an effect on nutritional status for all ages but is more pronounced in children. Infections also contribute to energy, protein, and other nutritional deficiencies due to decreased appetite, resulting in reduced food intake. Energy requirements during infection can reach twice the normal requirement due to increased basal metabolism. This causes muscle and liver glycogen depletion (29).

When infants suffer from infectious diseases, their appetite decreases, resulting in reduced energy intake. However, on the other hand, the body needs more energy to fight infection. In an infected body, energy requirements increase to support immunity and repair damaged cells. Inadequate energy intake and malabsorption can ultimately worsen nutritional status (29,30).

Patients have a history of diarrhea, cough, and recurrent fever that requires hospitalization. Infection and malnutrition are closely related. Children with poor nutrition have low immunity, making them more susceptible to illness. Conversely, recurrent infections worsen nutritional status. This condition is known as the infection-malnutrition cycle, a vicious cycle between poor nutrition and infection.

4) Immunization

In addition to feeding factors, immunization is also one of the measures to boost immunity against disease. Immunization is a process that makes a person immune or resistant to infectious diseases. Immunization has three main benefits: protecting children from the risk of death, effectively preventing disease, and protecting others. Thus, immunization is important for children. After receiving immunization, a child's immune system works better against bacteria, viruses, and disease-causing germs. Meanwhile, children who are not immunized are at greater risk of contracting dangerous diseases and experiencing severe complications (23,24).

The purpose of immunizing children is to reduce the risk of morbidity (illness) and mortality (death) in children. Immunization status is also an indicator of contact with health services, meaning that complete immunization status will improve new nutritional problems, so that immunization status is also expected to have a positive effect on long-term nutritional status (25,26). Efforts to achieve immunity,

in this case immunity to infection, are made through immunization. Immunization in the national health system is one of the most effective health interventions in reducing infant mortality rates (27,28).

In this case, based on information from the parents, the patient was reported to have received three immunizations, namely polio. An incomplete or poorly documented immunization history can leave children vulnerable to infectious diseases. This condition has the potential to increase the risk of recurrent infections, which can have a negative impact on children's nutritional status.

Immunization is a proven effective preventive measure in boosting immunity, protecting children from various infectious diseases, and reducing morbidity and mortality rates in infants. Therefore, complete and timely immunization coverage is an important intervention in preventing nutritional disorders, including stunting, especially in infants.

5) Health Facilities

Efforts to prevent stunting at the family level are greatly influenced by the quality of primary health services. Limited nutrition personnel, suboptimal availability and use of anthropometric tools at integrated health service posts (posyandu), and budget constraints are obstacles to routine monitoring of infant growth and development. In addition, low participation of families and communities in posyandu activities also contributes to delays in the early detection of nutritional disorders in children.

Various studies show that strengthening primary health services by increasing the capacity of health workers, providing continuous training for posyandu cadres, and utilizing standardized nutritional screening tools can improve the effectiveness of monitoring toddler growth and development. In the context of assisted families, a comprehensive approach that actively involves families is important to support the success of nutritional interventions, prevent stunting, and improve children's nutritional status in a sustainable manner.

6) Clean and Healthy Living Behaviors (PHBS).

The patient's living environment is not conducive to health. Household waste is disposed of in the yard, and previously the family did not have a bathroom or toilet, so they had to use their neighbors'. Poor environmental sanitation increases the risk of infectious diseases that contribute to malnutrition. PHBS is very important for creating a healthy environment, preventing disease, and supporting optimal child growth and development.

7) Socio-Economics

Income level is a measure of a family's economic status. Low income levels can result in a decline in a family's purchasing power. Similarly, low economic status is one of the factors contributing to malnutrition and stunting in Indonesia. Poverty can deprive people of access to education, health services, employment, family protection, and public services. Conversely, families with good economic status can provide all primary and secondary needs for their children (31).

Low-income families have a higher prevalence of illness, weakness, chronic disease, and limited activity due to health problems. Children in families with low economic status tend to consume food that is lacking in quantity, quality, and variety. High economic status allows individuals to choose and purchase nutritious and varied foods (32). The economic conditions of the families in the program tend to be low.

Economic status is quite dominant in influencing food consumption. Increased income will increase the opportunity to buy food with better quality and quantity. The higher a person's income, the lower the proportion of expenditure on food, but the better the quality of food. Conversely, the lower a person's income, the higher the proportion for food but with low food quality (36).

The patient's family has a low income of around Rp500,000–1,000,000 per month, with the father as the sole breadwinner. Poverty has an impact on limited access to education, health services, and the fulfillment of nutritious food needs. Children from low-income families tend to consume only food of limited quality and variety, putting them at greater risk of malnutrition.

CONCLUSION

The results of a case study of families with severely underweight, severely stunted, and severely wasted toddlers aged 31 months in Lagang Village, Sawang District, Babah Buloh Health Center, North Aceh Regency in 2026 are as follows:

1. Patient An. AN, a 31-month-old female, experienced delayed growth in height and weight, where her height and weight were not appropriate for her age. An. AN is severely underweight, severely stunted, and severely wasted, with a weight of 7.9 kg and a height of 79 cm, and her body appears short and thin.
2. The risk factors for the lack of control of An. AN's condition are the lack of control of her nutritional status, which is influenced by her mother's lack of knowledge, poor parenting, incomplete immunization, and low socioeconomic status.

In this case, the family of patient An. AN received education on nutritional issues, namely malnutrition, severe stunting, severe underweight, and severe wasting, general guidelines for balanced nutrition, how to deal with stunting by changing the attitudes and behaviors of family members, and explanations about clean and healthy living behaviors, healthy homes, and healthy toilets

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