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ANALYSIS OF NUTRITIONAL STATUS OF TODDLERS AGED 12-60 MONTHS BASED ON ANTHROPOMETRIC MEASUREMENTS

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Abstract

Background: Toddler nutritional status is an important indicator in assessing optimal growth and development during early childhood. Nutritional problems such as underweight, stunting, wasting, and overweight can affect children's health and quality of life in the future. **Methods:** This study used a descriptive analytical quantitative design with a total sampling technique involving 374 toddlers aged 12–60 months. Secondary data included age, gender, weight, and height. Nutritional status was assessed using Weight-for-Age (W/A), Height-for-Age (H/A), and Weight-for-Height (W/H) indicators based on WHO standards and analyzed descriptively. **Results:** The results showed that most toddlers had normal nutritional status based on W/A (322 children; 86.1%), normal H/A (346 children; 92.5%), and good W/H nutritional status (313 children; 83.7%). Nutritional problems identified included underweight in 34 children (9.1%), stunting in 28 children (7.5%), wasting in 21 children (5.6%), and overweight in 10 children (2.7%). Most toddlers (237 children; 63.4%) experienced stable or decreased body weight during monthly monitoring. **Conclusion:** The nutritional status of toddlers was generally good; however, cases of undernutrition and growth problems were still identified. Continuous growth monitoring and nutritional interventions are needed to improve toddler health status in the community.

Keywords: Toddler, Nutritional Status, Anthropometry

1. INTRODUCTION

Toddlers are children under five years old, while the term infant refers to children in the first two years of life. This period is crucial for successful growth and development in subsequent years. It is characterized by rapid, irreversible growth and development, often referred to as the golden

age. Therefore, regular growth monitoring is essential to assess whether toddlers are experiencing normal and optimal growth, thus preventing the risk of malnutrition, obesity, and stunting early on [1].

The problem of toddler nutrition remains a major challenge in achieving the Sustainable Development Goals (SDGs) by 2030, especially goal

2, namely Zero Hunger and improving the nutritional status of the community. Based on Indonesian data in 2024, the prevalence of stunting was recorded at 19.8%, wasting 7.7%, underweight 16.3%, and overweight 4.2%. When compared to the 2030 SDGs target, all of these indicators are still above the set limit. The difference in achievement to the respective targets is stunting 9.8%, wasting 4.7%, underweight 6.3%, and overweight achieved, while Indonesia's 2030 target is stunting 10%, wasting 3%, underweight 10%, overweight <5% [2].

The incidence of nutritional problems among toddlers remains a significant public health concern because it contributes to increased morbidity, impaired cognitive development, delayed motor development, decreased learning capacity, and increased risk of mortality. Children experiencing undernutrition and stunting are more vulnerable to infectious diseases and may experience long-term impacts on productivity and quality of life in adulthood. Therefore, anthropometric-based nutritional assessment is important as an early detection effort to identify growth disorders in toddlers[3].

Underweight is the indicator with the highest gap compared to the target, followed by stunting. This condition indicates that chronic malnutrition and underweight remain the top priority in addressing toddler nutrition issues in Indonesia. These various nutritional issues need to be addressed immediately because the government emphasizes that malnutrition in children can hinder growth and development potential and reduce their quality of life in the future. Growth is a quantitative process of change, characterized by an increase in the number, size, and dimensions at the cellular, organ,

and individual levels. Child growth is not only seen in physical size but also includes the development of body organs and the brain. Therefore, growth can be measured through numerical indicators such as weight, height, head circumference, and other anthropometric measurements. From 0-1 years of age, growth is very rapid, with weight at five months reaching twice birth weight, increasing threefold by one year, and quadrupling by two years of age. After that, growth tends to slow during the preschool period, with weight gain of around 2 kg per year, until entering a more constant growth phase [4].

Nutritional status is the state of the body resulting from the balance between nutrient intake through food and the body's nutritional needs. Nutritional status plays an important role in supporting the growth and development of toddlers, especially in maintaining ideal body weight according to age. Toddlers with good nutritional status tend to have a body weight appropriate for their age group, so that their growth and development are optimal. Assessment of toddler nutritional status is generally carried out through anthropometric indices, namely weight for age (BW/A), height for age (H/A), and weight for height (BW/H). The classification of underweight is determined if the Z-score value is between -3 SD to < -2 SD on the BW/A index, stunting if the Z-score value is between -3 SD to < -2 SD on the BW/A index, and wasting if the Z-score value is between -3 SD to < -2 SD on the BW/H index [5].

Factors influencing malnutrition include food availability, infectious diseases, household food security, childcare patterns, access to health services, environmental conditions, education level, parental knowledge and

skills, and the mother's nutritional history during pregnancy. The nutritional status of pregnant women is a crucial factor in determining fetal growth and development. Malnutrition in early life can have long-term impacts, such as fetal growth restriction (IUGR), low birth weight (LBW), small stature, stunting, thinness, low immunity, and an increased risk of death. Malnutrition in children also impacts cognitive abilities, intelligence levels, and future productivity [6]. In addition to inhibiting physical growth and mental development, malnutrition can reduce children's academic achievement. Other impacts include a weakened immune system, loss of healthy life span, and an increased risk of disease, disability, and death in toddlers [7].

Efforts to accelerate nutritional improvement need to be implemented through improving the quality of maternal and child health services, providing exclusive breastfeeding, providing quality complementary foods (MP-ASI), family nutrition education, improving environmental sanitation, and strengthening household food security to achieve the 2030 SDGs targets [8]. The government has also established four priority actions to reduce the prevalence of nutritional problems in Indonesian children. One important effort is raising public awareness of child nutrition issues [2]. Educators in early childhood education services have a strategic role. Educators need to be concerned about the nutritional condition of students and continuously monitor their nutritional status. A simple step that can be taken is identifying nutritional problems through regular nutritional status measurements. This activity is crucial for monitoring children's nutritional conditions, so that if problems are

found, they can be immediately addressed and prevented. Furthermore, measuring nutritional status is also useful for early detection of health risks that could potentially affect a child's quality of life throughout life [9].

2. RESEARCH METHODOLOGY

This study used a descriptive analytical design. The population used was all toddlers in the Kaligondang Community Health Center working area aged 12-60 months. The sampling technique was carried out using a total sampling technique, namely all children aged 12-60 months, a total of 374 people. Data collection was carried out through secondary data analyzed descriptively quantitatively, namely data in the form of numbers sourced from secondary documents. The data included age, gender, weight, height, and nutritional status of toddlers in the Kaligondang Community Health Center working area, Purbalingga Regency. Determination of the nutritional status of children aged 12-60 months was carried out through anthropometric measurements based on WHO standards, with manual Z-score calculations. Indicators used included weight for age (BB/A), height for age (TB/A), and weight for height (BB/TB).

The confidentiality and anonymity of respondents were maintained by not including participants' identities in the research data. The study was conducted in accordance with research ethics principles including beneficence, confidentiality, anonymity, and justice. Permission to conduct the study was obtained from the Kaligondang Community Health

Center and related authorities before data collection was carried out. Because the study used secondary aggregate data without direct intervention toward respondents, the research posed minimal risk to participants.

Data analysis was carried out univariately using descriptive statistics presented in the form of tables and graphs, and processed with the help of Microsoft Excel software. The results of the analysis are presented in tabular form. The high incidence of nutritional problems in toddlers and their long-term impacts on growth and development became the basis for selecting a descriptive analytical approach in this study. Anthropometric measurements were chosen because they are practical, objective, and recommended by WHO for identifying nutritional problems such as underweight, stunting, wasting, and overweight in community settings. Bivariate analysis

was conducted to describe the relationship between toddler characteristics (age and gender) and nutritional status indicators using cross-tabulation analysis.

3. RESULTS AND DISCUSSION

This study was conducted to determine the nutritional status profile of toddlers aged 12–60 months in the working area of Kaligondang Community Health Center based on anthropometric data. The analysis of the research results is presented in the form of a frequency distribution, including respondent characteristics based on age and sex, as well as the nutritional status of toddlers according to the indicators of weight-for-age (W/A), height-for-age (H/A), and weight-for-height (W/H). In addition, this study also examined toddlers' weight gain during the weighing month as one of the indicators for growth monitoring.

Table 1.

Table 1. The Univariate Analysis Showed That Most Respondents Were Male Toddlers Aged 36–60 Months. The Majority Of Toddlers Had Normal Nutritional Status Based On W/A, H/A, And W/H Indicators, Although Cases Of Underweight, Stunting, Wasting, And Overweight Were Still Identified (n=374)

Variable	Category	Frequency (f)	Percentage (%)
Gender	Male	210	56,1
	Female	164	43,9
Age	12–36 months	169	45,2
	36–60 months	205	54,8
W/A Nutritional Status	Severe underweight	2	0,6
	Underweight	32	8,5
	Normal	322	86,1
	Overweight risk	18	4,8

H/A Nutritional Status	Short (stunting)	28	7,5
	Normal	346	92,5
W/H Nutritional Status	Severe wasting	2	0,6
	Wasting	19	5,1
	Good nutrition	313	83,7
	Risk overweight	30	8,0
	Overnutrition	7	1,9
	Obesity	3	0,8
Weight Gain	Increased	121	32,4
	Stable/Decreased	237	63,4
	No data	16	4,2

Based on the results of Table 1, toddler characteristics include gender and age. The majority of respondents to the toddler study in the 12-60 month age range were male (210 people) and female (164 people) (43.9%). The highest age characteristics were in the 36-60 month age range (205 people) and toddlers aged 12-36 months (169 people) (45.2%). The distribution of gender characteristics in weight measurements by age was dominated by male toddlers with a higher number. This difference in proportion may reflect the condition of population distribution in the study area, but may also be influenced by other factors such as respondent participation patterns or family demographic characteristics. This finding is in line with previous research showing that the proportion of male toddlers is often higher in child health studies and has different risk tendencies compared to females [10].

Based on age characteristics, the study results show that most of the 36-60 month age group indicates that toddlers in the late preschool phase are more involved in research than younger toddlers. The

developmental stage of children aged 36-60 months is at a more mature stage in motor, cognitive, and social-emotional aspects, making it easier to observe and assess various research indicators. Children in this age range are generally more stable in their eating patterns, activities, and social interactions, facilitating more accurate data collection. Another factor that can influence this age distribution is the researcher's ease of access to respondents, as older children tend to regularly participate in activities such as integrated health service posts (Posyandu). Toddlers aged 12-36 months experience various important changes, such as the transition from breastfeeding to family food, the development of walking and talking skills, and increased social interaction. This phase is also known as a period vulnerable to various health problems, including nutritional disorders, infections, and developmental delays. Istiqomah's research (2024) stated that toddlers aged 25-59 months were more dominant at 61.7%, compared to those aged 0-24 months at 38.3% and stated that the male gender was the most, namely 59.7%, who had risk factors that were more susceptible to nutritional problems such as underweight, overnutrition (obesity), stunting, wasting,

low birth weight (LBW), Vitamin A deficiency, lack of micronutrients, Iodine Deficiency (IDD) and Iron Deficiency Anemia[11].

Toddlers are often picky eaters, tending to prefer snacks like biscuits, snacks, and ice cream over main meals. This tendency can cause toddlers to lose their appetite for main meals, preferring snacks as substitutes. As a result, toddlers are at risk of not meeting their nutritional needs because snacks often do not contain all the essential nutrients for optimal growth and development. Parents need to pay attention to the types of food their toddlers consume, as untreated loss of appetite can lead to nutritional problems in toddlers [12].

Parents' awareness and participation also played a role in determining the age distribution of respondents. Parents with older children tended to have more experience in parenting, thus better understanding the importance of growth and development monitoring and being more willing to participate in the study. Parents with younger children may still be adapting and facing various parenting challenges, thus limiting their participation in the study [13]

Based on the results of Table 1 nutritional status according to weight/age based on gender, the most in the normal category were 179 people (47.9%) male, and female as many as 143 people (38.2%), while the overall underweight category was 32 people (8.5%) of the male sex as many as 20 people (5.3%) and female 12 people (3.2%) and in the very less (severe underweight) category as many as 2 people (0.6%). Based on the characteristics of the age of nutritional status of toddlers according to BB/U, the most in the normal category at the age of 12-36 months as many as 145 people (38.8%) and the age of 36-60 months

as many as 177 people (47.3%), while the underweight category at the age of 12-60 months as many as 32 people (8.6%), and the very less (severe underweight) category at the age of 12-60 months as many as 2 people (0.5%).

Normal nutritional status dominated this study, in line with the theory that toddlers experience rapid growth and that meeting nutritional needs will result in age-appropriate weight gain. Weight is a sensitive indicator of health status and food consumption. The high proportion of normal children indicates that most respondents did not experience severe acute or chronic growth disorders. This condition may be influenced by increased parental awareness of the importance of growth monitoring through integrated health posts, community health centers, and other health services, which allow early detection of weight loss for prompt intervention [14].

The number of male toddlers with normal nutritional status is higher than that of female toddlers, likely due to the larger sample size of boys and their higher energy needs. Sociocultural factors and parenting patterns also play a role. Normal nutritional status is higher at 36-60 months compared to 12-36 months due to increased eating ability, larger stomach capacity, a wider variety of foods, and regular meal frequency. Eating disorders are more common in children under three years of age. Biological maturation and eating behaviors contribute to a more stable weight for children. Komang's research (2026), The higher proportion of normal nutritional status among children aged 36–60 months indicates that preschool-aged children experience a more stable growth phase compared to toddlers. At this age

range, independent eating ability increases, dietary variety improves, and the frequency of infectious diseases relatively decreases, thereby supporting the achievement of normal nutritional status [15].

This study shows that 8.5% of toddlers are underweight, lower than the WHO target (<10%), but severe underweight cases (0.6%) are still found in the 36-60 month age group and require serious treatment. In line with Zakira's research (2026), which shows that underweight is most common in the 36-59 month age group, namely 17%, and the highest gender is in male toddlers at 8.5%. At older ages, underweight is often related to picky eating habits, lack of appetite, worm infestation, or consumption of low-nutritious snacks. Interventions need to be tailored to the child's age group. Male toddlers are more susceptible to underweight than females, possibly due to their faster growth rate and increased energy needs. Underweight is caused by direct factors (low food intake, poor quality complementary feeding, infection) and indirect factors (maternal education, family income, sanitation, access to health) [16]. Although the nutritional status of toddlers is generally good, the persistence of cases of underweight and severe underweight indicates the need to strengthen community nutrition programs through education, supplementary feeding, improved sanitation, and infection control. Growth monitoring at integrated health posts and access to health services contribute to the low rate of severe underweight. Multidimensional inter-ventions are needed to address this issue, including home visits and nutrition counseling. These results are consistent with other studies showing

improvements in national nutrition, but with disparities among low-income and low-educated families.

Cases of severe underweight (0.6%) are still found and require immediate treatment due to the risk of medical complications, infections, immune disorders, developmental delays, and mortality. This condition can progress to wasting or stunting if left untreated. The causes of underweight are complex, including low food intake, poor-quality complementary feeding (MP-ASI), infections, and indirect factors such as maternal education, income, sanitation, and access to healthcare [17]

Results of the study in Table 1 regarding the description of the nutritional status of toddlers aged 12-60 months based on the anthropometric indicator of height for age (H/A), the results showed that most toddlers were in the normal category. Based on gender, 190 male toddlers (50.8%) were in the normal category and 156 female toddlers (41.7%). Based on age group, the highest normal category was found at 36-60 months, namely 188 people (50.3%), while at 12-36 months there were 158 people (42.2%). The incidence of stunting in the results of height-for-age measurements was found at 28 people (7.8%), with the largest number based on gender being male at 20 people (5.3%), and based on age group the largest at 36-60 months at 17 people (4.5%). These results indicate that the majority of toddlers have good linear growth status, but there are still some toddlers who experience stunting and require further attention.

There were more normal male toddlers than female toddlers, in line with the sample proportion. The majority of toddlers had normal height, but stunting was found in 28

(7.8%), indicating that nearly one in ten toddlers experiences chronic growth disorders that impact brain development, learning ability, adult productivity, and the risk of degenerative diseases. This stunting rate is quite good compared to the national prevalence, but prevention efforts must be consistent because stunting is multifactorial. Stunting was more common in male toddlers (20 or 5.3%). In line with the studies conducted by Yuningsih (2022) and Thurstans (2020), showing male vulnerability due to higher energy and nutrient needs and greater physical activity. Boys are also susceptible to respiratory and digestive tract infections, which inhibit growth [18][10]. In line with Zakira (2026), which proved that boys are more susceptible to stunting, at 43% compared to girls (40%) [16].

The highest incidence of stunting occurred in the 36-60 month age group (17 children or 4.5%). This indicates the accumulation of chronic nutritional problems from an early age, with the impact becoming more apparent at an older age. At this age, children are active and require high energy, but growth and development monitoring is often reduced. The 12-36 month age period is also crucial because it marks the nutritional transition from breast milk to family food, making them vulnerable to growth disorders due to picky eating and infection. According to Zakira (2026), the age group most susceptible to stunting (shortness) is 36-47 months, at 11.4% [16]. This is in line with research by Ramadan (2019), which states that the incidence of stunting is higher in children. Aged 24-59 months (40.4%) compared to children aged 0-13 months (26.9%). This demonstrates the effectiveness of

the 1000 HPK program in improving nutrition and sanitation as a preventative measure for children up to 24 months [19].

The study results showed that most toddlers in the study area had normal height, indicating that maternal and child health programs were running well. However, 28 toddlers experienced stunting, indicating that vulnerable groups remain. Factors causing stunting vary, including low income, lack of maternal nutritional knowledge, and poor sanitation. Stunting is also related to the condition of pregnant women. Stunting prevention must be comprehensive, starting from adolescence through the toddler-rearing period, as stunting impacts learning ability and adult productivity. The stunting rate of 7.8% shows progress, but the target of zero stunting remains a goal. According to Costa (2021), strategies to reduce stunting need to consider biological, social, and economic aspects. Interventions include improving nutrition for pregnant women, exclusive breastfeeding, nutritious complementary foods, routine growth monitoring, immunization, sanitation, and parenting education. Stunted toddlers require nutritional counseling and special monitoring. The role of cadres and health workers is vital in early detection of stunting through accurate anthropometric measurements [20].

Based on table 1, the nutritional status of toddlers according to Body Weight/Height based on gender is mostly in the male gender with the good nutrition category of 176 people (47.1%), female gender as many as 137 people (36.6%). The nutritional status of the malnutrition category (wasting) is mostly in the male gender as many as 10 people

(2.7%) and female 9 people (2.4%), while the very poor category (severe wasting) in the male gender as many as 1 person (0.3%), and female as many as 1 person (0.3%). Based on the age category of nutritional status according to BB/TB, the largest category of good nutrition is 36-60 months old with 168 people (44.9%), and 12-36 months old with 145 people (38.8%), while the largest category of malnutrition (wasting) is 36-60 months old with 12 people (3.2%), and 12-36 months old with 7 people (1.9%) and in the very poor category (severe wasting) is 1 person (0.3%) and 1 person (0.3%) is 36-60 months old.

Based on table 1 nutritional status according to weight/height to measure overweight based on gender, the most common are females with 6 people (1.6%) and males with 4 people (1.1%), while those with the highest risk of overweight are males with 17 people (4.5%), and females with 13 people (3.5%). Based on age, overweight is 5 people aged 12-36 months (1.3%), and 5 people aged 36-60 months (1.3%).

Good nutritional status reflects normal acute nutritional conditions and an appropriate weight/height ratio, indicating adequate energy and nutrient needs are met, supported by feeding patterns, food availability, access to health services, and government programs. In line with Masruroh (2026), children aged 12–59 months who have a good nutritional status are significantly more likely to demonstrate development appropriate for their age. Although most toddlers are well-nourished, cases of wasting and severe wasting, which are more common in boys and those aged 36-60 months, still require serious attention due to the high risk of morbidity and

mortality. Wasting indicates acute malnutrition due to inadequate intake or disease, with boys being more vulnerable due to higher energy needs and physical activity [14].

Severe wasting was found equally in both toddler age groups, indicating that severely malnutrition can occur at any age due to risk factors such as chronic disease or poor diet. In line with Anwar's (2023) research, 0.63% of children were undernourished and 0.04% were severely undernourished due to several factors, including congenital abnormalities, digestive infections, poor dietary habits, inadequate nutritional intake, low maternal nutritional knowledge, low family income, and large family size [21]. These findings are consistent with Masruroh (2026), who reported that poor nutritional status is associated with impaired brain and nervous system development, and reduced abilities in cognitive function, motor activity, language skills, and social interaction in children [14].

Overweight is more common in female toddlers, while the risk of overweight is higher in male toddlers. Overweight can occur from an early age (12-36 months) or in late childhood (36-60 months) due to various factors such as excessive formula feeding or lack of physical activity. Public health interventions must be balanced, focusing not only on wasting but also on preventing overweight through education on healthy eating patterns and physical activity. The prevalence of wasting in this study was relatively low compared to national targets, but cases of overweight, although small, are an early sign of changes in community consumption patterns due to urbanization and easy access to

processed foods. Nutritional improvement efforts include providing balanced nutrition, preventing infections to prevent wasting, limiting foods high in sugar, salt, and fat, and increasing physical activity to prevent overweight. The role of families, health workers, and integrated health post cadres is crucial in routine monitoring and education. Research by putri (2025) Children with overnutrition are at high risk of health problems, including psychological issues such as depression, anxiety, low self-esteem, and eating disorders. These conditions can persist into adulthood, reducing productivity and negatively affecting quality of life[9].

Based on table 1 nutritional status characteristics of toddlers show that the majority (63.4%) had stable or decreased weight (237 children), 32.4% (121 children) experienced weight gain, and 4.2% (16 children) did not weigh themselves. This indicates that most toddlers have not shown the expected weight gain, even though weight gain is important for monitoring child growth. Regular weight gain reflects adequate nutrition and health, while stable or decreased weight can indicate growth disorders, malnutrition, or parenting issues. The proportion of 63.4% of toddlers with stable or decreased weight is quite high, as healthy toddlers should experience weight gain. Weight stagnation or decrease in toddlers requires attention because it can indicate that energy and nutritional needs are not being optimally met or that there is a health problem.

Weight loss in toddlers is caused by insufficient food intake, often due to fussy eating, picky eating, or decreased appetite due to teething. Poor nutritional quality of food, such as high carbohydrate but low protein,

also contributes. Furthermore, consistent with Masrurah (2026), malnutrition may occur due to inadequate dietary intake, excessive physical activity, illness that reduces appetite, intestinal malabsorption, or emotional conditions that influence eating patterns. More serious weight loss, often related to infections (diarrhea, fever, acute respiratory infections), reduces appetite and increases energy needs, leading to the use of energy reserves and weight loss, potentially leading to acute malnutrition [14]. Indirect factors such as maternal education, nutritional knowledge, sanitation, and socioeconomic status also contribute. Mothers with good nutritional knowledge are better able to choose foods and recognize danger signs. Economic constraints and poor sanitation increase the risk[15].

The study results Approximately 32.4% of toddlers gain weight, indicating expected growth, but this proportion still needs to be improved. Weight gain is age-dependent, with faster gains in children under two years of age. If weight does not increase for two or three consecutive months, immediate intervention is needed. A total of 16 toddlers (4.2%) did not attend weighing at the integrated health post, hampering early detection of nutritional disorders. This absence risks delaying the identification of growth problems until the condition worsens. Causal factors include busy parents, lack of knowledge, remote access, incompatible schedules, or the perception of a healthy child. Family support and maternal motivation. In line with research by Rokhayati (2024), the low knowledge of mothers about the nutritional needs of toddlers and mothers' reluctance to monitor

toddler growth at the integrated health post (posyandu) influenced the incidence of nutritional status problems, namely with the incidence of malnutrition status of 14.28% and severe malnutrition 0.03%, stunting as much as 25%, very stunting as much as 7.14%, wasting as much as 7.14% and very wasting as much as 7.14% [1].

Based on table 1 or decreasing weight gain in toddlers is a serious concern because it is an early indicator of nutritional disorders, preceding stunting or wasting. Monitoring weight gain is crucial for early intervention, such as dietary counseling, examinations, or referrals. Research by Evayanti (2025) found a link between a history of infection and weight loss [17]. These results emphasize the importance of revitalizing integrated health service posts (Posyandu) as centers for monitoring child growth and development, providing not only weighing but also nutrition education, vitamin A provision, immunizations, breastfeeding and complementary feeding counseling, and referrals. Posyandu need to increase post-weighing follow-up, such as home visits or nutrition classes, especially since more than half of toddlers show stagnant or decreasing weight [17][22][12].

Interventions to increase toddler weight include education on age-appropriate feeding, increasing animal protein consumption, providing healthy snacks, monitoring infectious diseases, and stimulating positive eating behaviors. Parents must understand the importance of three main meals a day and nutritious snacks with a variety of foods. Strengthening the recording and reporting system for monthly

weighing results is also crucial for monitoring longitudinal growth and identifying children in need of priority support. Although the proportion of children whose weight remains constant or decreases is high, further evaluation is needed to differentiate normal variations in growth from nutritional disorders, through examination of eating history, illness, and other anthropometrics [9]. This study is important because it uses a practical indicator of monthly weight gain for early detection of nutritional problems.

The bivariate analysis showed that male toddlers tended to experience higher rates of underweight, stunting, and wasting compared to female toddlers. In addition, toddlers aged 36–60 months demonstrated a greater proportion of nutritional problems than those aged 12–36 months. This finding indicates that increasing age may influence nutritional vulnerability due to higher nutritional requirements, dietary transitions, and increased physical activity. Although no inferential statistical test was performed, the cross-tabulation results indicate a tendency that gender and age contribute to differences in toddler nutritional status. These findings support previous studies stating that male toddlers are more vulnerable to nutritional disorders because of greater energy requirements and higher susceptibility to infectious diseases.

Overall, the findings indicate the need for strengthened growth monitoring, family nutrition education, improving the quality of integrated health posts (Posyandu), and early intervention to prevent nutritional disorders. In line with Anwar (2023), programs to reduce the

incidence of malnutrition in toddlers include monitoring toddler growth through home visits, providing milk (CFC), cross-sectoral collaboration, and providing health education to family members[21].

4. CONCLUSION

Based on the research results, the majority of toddlers aged 12–60 months in the Kaligondang Community Health Center's work area have normal nutritional status based on weight for age, height for age, and weight for height. However, cases of underweight, stunting, wasting, and overweight are still found, requiring attention. Furthermore, most toddlers experience weight stability or decrease during monthly weighing, indicating the need for increased growth monitoring. Overall, the nutritional status of toddlers is considered good, but efforts to prevent and address nutritional issues must be carried out continuously.

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