

## Socioeconomic Relationship And Feeding Patterns With The Nutritional Status Of Toddlers In The Working Area Of The Amonggedo Health Center, Konawe Regency

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### ABSTRACT

Nutritional status is a measure of success in meeting children's nutritional needs as demonstrated through attainment of weight for age. The incidence of malnutrition in the Amonggedo Community Health Center, Konawe Regency is 10.86% of children under five in 2021. The aim of this research is to determine the socio-economic relationship and feeding patterns on the nutritional status of children under five. This research is quantitative research with a Cross Sectional Study approach. The population in this study was 276 mothers with toddlers. The sample for this research was 73 mothers of toddlers. The sampling technique used was Cluster Random Sampling. Data collection using questionnaires and 24 hour food recall forms. The data were analyzed statistically using the chi-square test. The results of the study showed that there was a relationship between socio-economic and nutritional status of toddlers with a  $p$  value of  $0.036 < 0.05$  with a phi coefficient test of  $0.279$ , which means a moderate relationship, and there was a relationship between feeding patterns and nutritional status of toddlers with a  $p$  value of  $0.006 < 0.05$  with a phi coefficient test of  $0.351$  which means the relationship is moderate. The conclusion from the results of this research is that socio-economic and feeding patterns are related to the nutritional status of toddlers in the working area of the Amonggedo Health Center, Konawe Regency. Suggestions from the results of this research are that mothers of toddlers should provide more nutritious food and sufficient energy for their children.

## Introduction

Nutritional status is a measure of success in meeting children's nutritional needs as demonstrated through attainment of weight for age. Nutritional status in toddlers is very significant as a starting point for physical capacity in adulthood. The factors that most influence the nutritional status of children under five can be studied and then formulated into recommendations that can be used as the best guidelines for the community (Sulistyawati, 2019).

The nutritional status of toddlers is an important thing that every parent must know. Based on the fact that malnutrition in toddlers during the golden years is irreversible (cannot be recovered) and malnutrition in toddlers can affect the child's brain development. Therefore, toddlers with poor nutritional status have weak immune systems so they are easily attacked by disease (Sholikah et al., 2017).

According to WHO, there are three indicators of nutritional status in children that are used as parameters, namely weight for age, height for age, and weight for height. Body weight is



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a general indicator of nutritional status because body weight is positively correlated with age and height (Kementrian Kesehatan RI, 2017). Fulfillment of nutrition is the right of every child, this effort is aimed at preparing future generations who are healthy, intelligent and of good quality and to reduce infant and child mortality rates (Lily Restusari, Muharni & Alkausyari Aziz, 2016).

Malnutrition is a condition where the body weight according to age is not appropriate for the age it should be. The condition of undernourished toddlers will be vulnerable to occurring in toddlers aged 2-5 years because toddlers have adopted a diet such as family food with a high level of physical activity (Diniyyah & Nindya, 2017). The current phenomenon is related to food consumption that is not balanced with calorie needs which will affect a child's growth. Poor eating attitudes and behavior will result in poor nutritional status in toddlers (Setyawati & Setyawati, 2015).

According to (WHO, 2018) the number of people suffering from malnutrition in the world has reached 104 million children and malnutrition is the cause of one third of all child deaths throughout the world. South Asia is the region that has the largest prevalence of malnutrition in the world, namely 46%, followed by sub-Saharan Africa at 28%, Latin America/Caribbean at 7%, and the lowest is in Central, Eastern Europe and the Commonwealth of Independent States at 5 %. According to the World Health Organization (WHO) in 2019, it was explained that around 7.7% or 52 million children under 5 years globally experienced malnutrition, the highest percentage of children under 5 years with malnutrition status was in Southern Asia at 15.4%, in Oceania it was 9.4%, in Southeast Asia it was 8.9%, in West Africa it was 8.5% and the lowest percentage of children under 5 years with malnutrition status was in North America at 0.5%. Malnutrition conditions in children under five can also be found in developing countries, one of which is Indonesia (UNICEF Indonesia, 2020).

Basic health research (Riskseddas) in 2018 conducted by the Ministry of Health stated that the percentage of malnutrition among children under five in Indonesia was 3.9%, while the percentage of malnutrition was 13.8%. This is not much different from the results of the Nutritional Status Monitoring held by the Ministry of Health in 2017, namely the percentage of malnutrition among children under five was 3.8% and the percentage of malnutrition was 14.0%. In 2019, the percentage of malnutrition among children under five was 15.0% and the percentage of malnutrition among children under five was 4.0% (Indonesian Health Profile, 2020). Data from the Southeast Sulawesi Provincial Health Service, nutritional status based on weight/age of toddlers in 2018-2020 shows that Southeast Sulawesi still has a malnutrition problem. Data from 2018 shows that 8.82% of toddlers experience malnutrition and 5.63% of toddlers experience malnutrition. In 2019, it showed that 4.76% of children under five were malnourished and 6.53% of children under five were malnourished. And in 2020, it showed that 11.37% of children under five were malnourished and 8.53% of children under five were malnourished. (City District Health Profile and 2021 Nutrition Program Annual Report).

Monitoring the nutritional status of toddlers based on their weight in 2018 in Konawe Regency, the percentage of nutritional status in toddlers was 8.13% of toddlers experiencing malnutrition and 6.37% experiencing malnutrition. In 2019, it showed that 1.77% of children under five were malnourished and 7.0% were malnourished. And in 2020, it showed that 14.36% of children under five were malnourished and there were 4.45% malnutrition (SULTRA Provincial Health Office, 2021). Based on data from the Amonggedo Community Health Center, the prevalence of nutritional status of children under five in 2019-2021 has increased quite significantly. In 2019 there were 738 toddlers, then 8.25% of toddlers experienced malnutrition, in 2020 there were 748 toddlers, then the percentage of nutritional status of toddlers that showed malnutrition was 9.39% of toddlers, and in 2021 there were 764 toddlers, then the percentage of nutritional status was 9.39% of toddlers. 10.86% of toddlers suffer from malnutrition (UPTD Puskesmas Amonggedo, 2021).



Malnutrition status can be influenced by several factors, including factors that influence directly and indirectly. Factors that directly influence the nutritional status of toddlers include inadequate nutritional intake and the presence of infections. Nutritional intake greatly influences nutritional status, if the body receives the optimal nutritional intake it needs, physical growth, brain development, work ability and health will occur optimally so that nutritional status will be optimal. Infectious diseases such as diarrhea and upper respiratory tract infections will result in the nutrient absorption process being disrupted and not optimal, which will affect nutritional status (Supariasa, 2016).

The next factors are factors that indirectly influence the nutritional status of toddlers, including the level of knowledge of parents regarding meeting nutritional needs, economic factors and poor environmental sanitation. Insufficient levels of knowledge and low economic levels will result in families not providing a variety of food every day, resulting in an imbalance between nutritional intake and the body's metabolic needs. Poor environmental sanitation is a trigger factor for various health problems, for example diarrhea, worms and gastrointestinal infections (Marimbi, 2010).

According to (Sugihartono in Hasana, 2018) socio-economic status such as parental employment, parental education and a family's income influences the nutritional status of a family's toddlers. A family's income greatly influences a person's ability to access and consume certain foods which will affect the nutritional status of the toddler.

Feeding patterns are the most important behavior that can influence nutritional conditions because the quality and quantity of food and drink consumed will affect an individual's level of health. Optimal nutrition is very important for normal growth and physical and intellectual development of babies, children and all age groups. Eating patterns are the behavior of a person or group of people in fulfilling food needs which includes attitudes, beliefs and food choices. Eating patterns are formed as a result of physiological, psychological, cultural and social influences (Lola, Margaretha, & Sitompul, 2018).

Based on an initial survey conducted by researchers in the Amonggedo Community Health Center working area on 10 mothers who had toddlers, it was found that there were 3 mothers whose toddlers were malnourished and 7 other mothers whose toddlers were well-nourished. From the results of interviews with mothers of toddlers, there were several mothers of toddlers who still did not understand how to properly and properly feed their toddlers. It is known that mothers of toddlers do not pay attention to the type and amount of food that is appropriate for their child's needs and say that their children often refuse the food they are given and prefer to buy instant food. Apart from that, there are also other factors that influence it, such as socio-economic factors, one of which is family income.

The aim of this research is to identify the socio-economic relationship and feeding patterns with the nutritional status of toddlers in the working area of the Amonggedo Community Health Center, Konawe Regency.

## Methods

This type of research is quantitative research with a cross sectional study approach, namely research carried out by measuring variables at a certain time (Notoatmodjo, 2018). Measurement of variables in cross-sectional studies does not have to be done precisely at the same time, but means that each subject is only subjected to one measurement, without any follow-up or reduction in measurements.

Sampling technique is a process of selecting samples used in research from an existing population (Notoatmodjo, 2012). In this research, the technique used is cluster random sampling, namely grouping samples based on region or population location. The number of samples for this study was 73 samples based on the inclusion criteria, namely



mothers who have toddlers and are registered in the Amonggedo Community Health Center area, domiciled for  $\geq 1$  year. For exclusion criteria, namely mothers and toddlers have moved/outside the working area of the Amonggedo Community Health Center and are uncooperative and unwilling to be respondents. . This research was conducted in August 2022 and took place at the Amonggedo Community Health Center, Konawe Regency.

The results of the research data were analyzed using the Chi-Square test at a confidence level of 95% ( $\alpha = 0.5$ ). Then, if there are cells whose value is less than 5 or more than 20%, then the Fisher Exact test is used. Next, if the statistical test results are significant or it is known that there is a relationship between the independent variable and the dependent variable, then proceed with the Phi coefficient test, which is intended to see the closeness or strength of the relationship.

## Results

### Respondent Characteristics

Table 1 shows that of the 73 respondents, the highest gender was male, 41 respondents (56.2%) while the lowest was female, 32 respondents (43.8%). The toddler age category of 73 respondents had 12 respondents (16.4%) aged 12-21 months, 31 respondents (42.5%) aged 22-31 months, 17 respondents (23.3%) aged 32-41 months. 23.3%) and toddlers aged 42-51 months were 8 respondents (11.0%).

Table 1. Characteristics of Respondents

Respondent Characteristics	Frequency distribution	
	f	%
Toddler Gender		
Male	41	56,2
Female	32	43,8
Toddler Age		
12 - 21 months	12	16,4
22 - 31 months	31	42,5
32 - 41 months	17	23,3
42 - 51 months	8	11,0
52 - 61 months	5	6,8
Total	73	100

### Socioeconomic Relationship with the Nutritional Status of Toddlers in the Amonggedo Community Health Center Working Area

Table 2. Socioeconomic Relationship with the Nutritional Status of Toddlers in the Working Area of the Amonggedo Health Center, Konawe Regency

Socioeconomic	Nutritional Status of Toddlers				Total		Statistic test  <i>p value</i> = 0,036 <i>Phi (Q)</i> = 0,279
	Normal weight		Under weight		n	%	
	n	%	n	%			
Sufficient Income	16	88,9	2	11,1	18	100	



less income	32	58,2	23	41,8	55	100
Total	48	65,8	25	34,2	73	100

Based on the table above, it shows that of the 73 respondents there are 18 respondents who have sufficient income, of which there are 16 (88.9%) toddler respondents who have a normal weight nutritional status and there are 2 (11.1%) toddler respondents with a normal weight nutritional status. not enough. Then there were 55 respondents who had less income, of which there were 32 (58.2%) toddler respondents whose nutritional status was normal and there were 23 (34.2%) respondents whose nutritional status was less weight.

### The Relationship Between Feeding Patterns and the Nutritional Status of Toddlers in the Amonggedo Community Health Center Working Area

Table 3. Relationship between feeding patterns and nutritional status of toddlers in the Amonggedo Community Health Center working area

Feeding Patterns	Nutritional Status of Toddlers				Total		Statistic test  <i>p value</i> = 0,006 Phi (Φ) = 0,351
	Normal weight		Normal weight				
	n	%	n	%	n	%	
Enough	33	80,5	8	19,5	41	100	
not enough	15	46,9	17	53,1	32	100	
Total	48	65,8	25	34,2	73	100	

Based on the table above, it shows that of the 73 respondents there are 41 respondents who have an adequate diet, of which there are 33 (80.5%) toddler respondents who have a normal weight nutritional status and 8 (19.5%) toddler respondents who have a normal weight nutritional status. not enough. Then there were 32 respondents who had poor eating patterns, including 15 (46.9%) toddler respondents who had normal weight nutritional status and 17 (53.1%) toddler respondents who had underweight nutritional status.

### Discussion

The relationship between socio-economic and nutritional status of toddlers in the work area of the Amonggedo Health Center, Konawe Regency shows that respondents with socio-economic income are less. This can be caused by the livelihood of the average population being agrarian and the unemployment rate high. Meanwhile, socio-economic income is sufficient, but this is due to employment factors such as civil servants, entrepreneurs and teaching staff, which allows the income to be sufficient and can be seen from the parents' small living expenses so that the expenditure required is not much.

Table 2 shows that of the 18 mother respondents who had sufficient socio-economic income, there were 16 toddler respondents (88.9%) who had normal weight nutritional status. This was due to the parents' income being sufficient so that their children's nutritional needs could be guaranteed and mother's knowledge of understanding the calorie intake needed by her child and there were 2 toddler respondents (11.1%) with low



body weight nutritional status. This could be caused by the mother's lack of knowledge of the amount of calorie intake her child needs. Then, of the 55 mother respondents who had social low income economy, there are 32 toddler respondents (58.2%) who have normal weight nutritional status. This can be caused by low income even though their food purchasing power is low so they are unable to buy the required amount of food, but here the mother's knowledge plays a very important role. because with the mother's knowledge of understanding the amount of calorie intake her child needs, her child's nutritional status is adequate, and there are 23 toddler respondents (34.2%) who have a normal weight nutritional status. This is due to the mother's lack of knowledge of the number of calories her child needs. and is also influenced by a lack of income resulting in the mother being unable to buy the required amount of food, resulting in the child's nutritional status being underweight.

The results of statistical tests using the chi square test show that the  $p$  value = 0.036  $< \alpha = 0.05$ . This shows that  $H_0$  is rejected and  $H_a$  is accepted, meaning that there is a socio-economic relationship with the nutritional status of toddlers in the working area of the Amonggedo Health Center, Konawe Regency. To determine the magnitude of the relationship or the closeness of the relationship between the variables that have been tested by Chi square, a Phi coefficient test = 0.279 was carried out, which means there is a relationship between the moderate socio-economic category and the nutritional status of toddlers in the working area of the Amonggedo Community Health Center, Konawe Regency.

The results of this research are in line with the results of research by Wandari (2021) that the economic status of parents influences the nutritional status of toddlers. Income is the factor that most determines the quality and quantity of food. Parents' ability to buy groceries depends on the size of the parents' income. Apart from that, income level can determine eating patterns. Parents with limited income cause their food purchasing power to be low so that they are unable to buy food in the required quantities and ultimately have a negative impact on the nutritional status of their children under five. On the other hand, the higher the parents' income, the nutritional needs of family members can be guaranteed (Wandari, 2021).

Feeding Patterns Based on the Nutritional Status of Toddlers in the Working Area of the Amonggedo Community Health Center, Konawe Regency, shows that 41 respondents (56.2%) had adequate feeding patterns for toddlers. This could be caused by mothers' knowledge of understanding the amount of calorie intake their children need. Meanwhile, 32 respondents (43.8%) had an underfeeding pattern for toddlers. This could be due to the mother's lack of knowledge so that the calorie intake required by the child did not match the nutritional adequacy figure. The results show that of the 41 respondents who have adequate feeding patterns, there are 33 toddler respondents (80.5%) who have normal weight nutritional status. This is due to the child's nutritional intake being fulfilled and there are 8 toddler respondents (19.5% ) who have a nutritional status of low body weight, this can be caused by disease infection and the amount of calorie intake consumed does not match the nutritional adequacy figure. Then, of the 32 respondents who had poor feeding patterns, there were 15 toddler respondents (46.9%) who had a normal nutritional status. This was based on the results of interviews by filling out questionnaires. The way this child was given food was not as it should be, but the amount of calorie intake consumed according to their respective nutritional adequacy figures resulting in good nutritional status, and there were 17 respondents under five (53.1%) who had nutritional status. This could be caused by mothers who did not limit their children's snacks so that children ate



outside and children who are not picky eaters.

The results of statistical tests using the chi square test show that the  $p$  value = 0.006 <  $\alpha$  = 0.05. This shows that  $H_0$  is rejected and  $H_a$  is accepted, meaning that there is a relationship between feeding patterns and the nutritional status of toddlers in the working area of the Amonggedo Community Health Center, Konawe Regency. To determine the magnitude of the relationship or the closeness of the relationship between the variables that have been tested by Chi square, a Phi coefficient test = 0.351 was carried out, which means there is a relationship between the medium category of feeding patterns and the nutritional status of toddlers in the working area of the Amonggedo Community Health Center, Konawe Regency.

The results of this research are in line with the results of Sodikin's (2018) research that there is a significant relationship between feeding patterns and the nutritional status of toddlers. Poor toddler eating patterns will affect nutritional status. Some of the reasons for parents whose children fall into the category of nutritional problems are because mothers do not maintain cleanliness when processing food, do not wash their hands before doing so, apart from that, parents also do not limit their children to snacks or eating out (Sodikin et al., 2018).

## Conclusion

Based on the results of the research and discussion in this study, it can be concluded that there is a moderate relationship between socio-economic and nutritional status of toddlers in the working area of the Amonggedo Health Center, Konawe Regency and there is a moderate relationship between feeding patterns and the nutritional status of toddlers in the working area of the Amonggedo Health Center, Konawe Regency.

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