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Study Analysis Of Infectious Diseases And Level Of Protein Consumption With Nutritional Status Of Sanleo Village, East Malaka District, District Malaka, East Nusa Tenggara

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ABSTRACT

According to UNICEF, there are two causes that can affect the nutritional status of children under five, namely direct causes and indirect causes. There are two direct causes, namely nutritional intake and infectious diseases. Nutritional intake can be caused by an unbalanced intake of food consumed or food that does not meet the requered nutritional elements. Meanwhile, infection causes damage to several functions of the body's organs so that they cannot absorb food substances properly. The purpose of this study was to analyze the relationship between the incidence of infectious diseases and the level of protein consumption with the nutritional status of toddlers aged 24-59 months in Sanleo Village, East Malaka District, Malaka District, East Nusa Tenggara. Analytical research method with cross sectional approach. The number of samples was 92 respondents using *simple random sampling* technique. Using *Chi-square* data analysis test. The result of study based on bivariate analysis that were not related to the nutritional status of toddlers 24-59 months in Sanleo village, East Malaka sub-District, Malaka District, East Nusa Tenggara, were infectious diaseases with a *p value* 0,35 > 0,05, while those related to nutritional status were the level of protein consumption with a *P value* (0,00) < α (0,05).The variable related to nutritional status is the level protein consumption. Research advice, the community needs to increase protein consumption for toddlers so that the nutritional status of toddlers can be maintained.

Keyword: Infectious Diaseases, Nutritional Status, Protein Consumption.

INTRODUCTION

Human resources are an important asset to encourage national economic development, including in the industrial sector. With skilled and qualified human resources, domestic manufacturing will be more competitive both at the domestic and global levels. Nutrition in relation to the development of a nation is related to human resources, because nutrition is central to human development (Ministry of Health of the Republic of Indonesia, 2015). Good nutrition in toddlers results in a normal or healthy body weight, the body is less susceptible to infectious diseases, increases work productivity and is protected from chronic diseases and premature death due to disease.

According to UNICEF there are two causes that can affect the nutritional status of children under five, namely direct causes and indirect causes. There are two direct causes, namely nutritional intake and infectious diseases. Nutritional intake can be caused by an imbalance in the amount of food intake consumed or food that does not meet the required nutritional elements. While the infection causes damage to several organ functions so that they cannot absorb nutrients properly.

Infectious diseases will worsen a person's nutritional status. Poor nutritional conditions

will make it easier for a person to contract infectious diseases. The interaction between infectious diseases and lack of protein energy is the main cause of disease, this usually occurs together, and one another influences one another. Infection can cause a lack of appetite, causing food intake into the body to be low which can eventually lead to malnutrition.

Data for toddlers with a weight-for-age index (Body weight/age) entered in East Nusa Tenggara Province in 2020 was 49.6% of the existing toddlers target. In Malacca District, the nutritional status of toddlers with the index Weight for Age was entered in 2020 as many as 15,030 (95.8%) of the toddlers out of the existing target of 15,693 toddlers. From the target toddlers that were entered, there were 183 (1.2%) toddlers with very underweight and 1110 (7.4%) toddlers with underweight. Meanwhile, in East Malaka District, of the 6 villages in the area, Sanleo Village is the village with the highest number of cases of severely underweight and underweight toddlers. Data on the nutritional status of toddlers in Sanleo Village with an index of weight for age were entered as many as 211 (100%) of the existing toddler targets. Data from the entry results obtained as many as 5 (2.4%) toddlers with very underweight, and as many as 56 (26.5%) toddlers with underweight.

Based on data from visits to the Seon Community Health Center, toddlers who experienced infections in 2021, from 6 villages in the Seon Community Health Center area, it was found that there were 10 diseases most frequently experienced by toddlers, namely gastroenteritis, acute respiratory infections, conjunctivitis, diarrhea, impetigo, worms, pneumonia. , malaria, bronchitis and dysentery.

Based on these problems, researchers are interested in conducting research on the relationship between the incidence of infectious diseases and the level of protein consumption with the nutritional status of toddlers aged 24-59 months in Sanleo Village, East Malaka District, Malacca Regency, East Nusa Tenggara.

METHODS

In this study, researchers used a quantitative observational design with a cross sectional approach, namely a study to study the dynamics of the correlation between risk factors and effects, by approaching, observing or collecting data, all at once (time point approach), meaning each research subject only observed once and measurements were made on the character status between research subject variables observed at the same time (Soekidjo, 2012) This research will analyze infectious diseases and protein consumption levels with the nutritional status of toddlers 24-59 months in Sanleo village, East Malaka District , Malacca Regency, East Nusa Tenggara.

The population in this study was 210 toddlers in Sanleo village, East Malaka District, Malaka Regency, East Nusa Tenggara in 2022. Meanwhile, the sample in this study was 92 toddlers. Sampling in this study used simple random. The independent variables in this study were infectious diseases and level of protein consumption. The independent variable in this study is nutritional status.

Result and Discussion

a. Result of Univariat Analysis

The characteristics of the respondents are the variety of backgrounds that the respondents themselves have. This characteristic is to see what kind of background respondents have. In this study the results of univariate analysis included gender, age, infectious disease, protein consumption level and nutritional status.

1. Respondents' Characteristic based on Sex

Table 8 Respondents' Characteristic based on Sex

Sex	Amount	Precentage (%)
Male	51	55
Female	41	45
Total	92	100

Source : Result of Data Analysis Research, 2022

Table 8 above shows that the majority of toddlers aged 24-59 months are male, 51 respondents (55%) and 41 respondents (45%) female.

Respondents' Characteristic based on Age

Table 9 Respondents' Characteristic based on Age

Age	Amount	Precentage (%)
24-36 months	55	59.8
37-48 months	19	20.7
49-59 months	18	19.6
Total	92	100

Source : Result of Data Analysis Research, 2022

Table 9 above shows toddlers aged 24-59 months. There were 55 (59.8%) respondents aged 24-36 months, 19 (20.7%) respondents aged 37-48 months and 18 (19.6%) respondents aged 49-59 months.

2. Respondents' Characteristic Based On Infectious Disease

Table10 Respondents' Characteristic Based On Infectious Disease

Infectious Disease	Amount	Precentage (%)
Healthy	63	68.5
Sick	29	31.5
Total	92	100

Source : Result of Data Analysis Research, 2022

Table 10 above shows that in the last month there were 29 (31.5%) respondents aged 24-59 months who were sick, while 63 (68.5%) respondents were healthy toddlers.

3. Respondents' Characteristic based on Protein Consumption Levels.

Table 11 Characteristics of Respondents Based on Level of Protein Consumption

Protein Consumption	Amount	Precentage (%)
Yes	69	75
No	23	25
Total	92	100

Source : Result of Data Analysis Research, 2022

Table 11 above shows that the majority of toddlers aged 24-59 months who consume protein meet the Nutritional Adequacy Rate as many as 69 (75%) respondents and do not meet the Nutritional Adequacy Rate as many as 23 (25%) respondents.

4. Characteristics of Respondents Based on Nutritional Status

Table 12 Characteristics of Respondents Based on Nutritional Status

Nutritional Status	Amount	Precentage (%)
Less	30	32,6
Good	62	67,4
Total	92	100

Source: Research Data Processing Results, 2022

Table 12 above shows that the majority of toddlers aged 24-59 months experience good nutrition with a standard deviation (-2 SD to +1 SD) of 62 (67.4%) respondents and 30 (32.6%) respondents experience malnutrition.

b. Result of Bivariate Analysis

The relationship between the incidence of infectious diseases and the nutritional status of toddlers 24 - 59 months in Sanleo Village, East Malaka sub-district, Malacca Regency. Analysis of the relationship between the level of protein consumption and the nutritional status of toddlers 24 - 59 months in Sanleo Village, East Malaka District, Malacca Regency, was obtained using the Chi-square test to see the Prevalence Ratio value.

a) Frequency distribution of respondents based on the relationship between the incidence of infectious diseases and the nutritional status of children under five

Table 13 Distribution of Frequency of Respondents based on the Relationship Between the Incidence of Infectious Diseases and the Nutritional Status of Toddlers 24-59 months in Sanleo Village, East Malacca District, Malacca Regency, 2022.

Infectious Disease	Malnutrition Status		Good Nutritional Status		Total		PValue
	N	%	N	%	N	%	
Yes	14	15,2	15	16,3	29	31,5	0.35
No	16	17,4	47	51,1	63	68,5	

Source: Research Data Processing Results, 2022

Table 13 above shows that of the 92 respondents, there were 30 (32.6%) respondents who experienced malnutrition and of them 14 (15.2%) respondents suffered from infectious diseases and experienced malnutrition while 16 (17.4%) respondents did not. suffer from infectious diseases but suffer from malnutrition. Based on the results of chi-square analysis, a p value of 0.35 was obtained. Statistical significance can be seen from the p value number because there are cells that are less than 5. Thus, because the P value (0.35) > α (0.05), then H_o is accepted and H_1 is rejected. So statistically in this study there is no relationship between infectious diseases and nutritional status in Sanleo Village, East Malaka District, Malacca Regency.

b) Frequency Distribution of Respondents based on the Relationship Between Levels of Protein Consumption and Nutritional Status of Toddlers.

Table 14 Frequency Distribution of Respondents based on the Relationship Between Levels of Protein Consumption and Nutritional Status of Toddlers aged 24-59 months in Sanleo Village, East Malacca District, Malacca Regency, 2022.

Level of Protein Consumption	Malnutrition Status		Good Nutritional Status		Total		Pvalue
	N	%	N	%	N	%	
Yes	7	7,6	62	63,4	69	75	0,00
No	23	2,525	0	0	23	25	

Source: Research Data Processing Results, 2022

Table 14 above shows that of the 92 respondents studied, there were 69 (75%) respondents who had good nutritional status, of which 62 (63.4%) respondents consumed protein and met nutritional adequacy rates and 7 (7.6%) who consumed protein and meet the nutritional adequacy rate and suffer from malnutrition. Based on the results of the chi square analysis, the p value is 0.00. Thus because the P value (0.00) < α (0.05), then H_o is rejected. So there is a relationship between the level of protein consumption and the nutritional status of toddlers aged 24-59 months in Sanleo Village, East Malaka District, Malacca Regency.

CONCLUSION

31.5% of toddlers aged 24-59 months are infected with infectious diseases, while 68.5% of those who are not infected with infectious diseases are infected. Toddlers aged 24-59 months consume protein and meet the Adequacy Nutrition Rate (RDA) of 69 respondents (75%) and do not meet the Adequacy Nutrition Rate of 23 respondents (25%).

Toddlers aged 24-59 months have good nutritional status with a standard deviation (-2 SD to +1 SD) for 62 respondents (67.4%) and 30 respondents (32.6%) experience malnutrition. In this study, it was found that there was no relationship between infectious diseases and the nutritional status of toddlers 24-59 months in Sanleo Village, East Malaka District, Malacca Regency in 2022. In this study it was found that there was a relationship between the level of protein consumption and the nutritional status of toddlers 24-59 months in Sanleo village, East Malacca District, Malacca District in 2022.

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