IDENTIFIKASI FAKTOR RISIKO GIZI KURANG PADA ANAK BALITA

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ABSTRAK

Gizi kurang merupakan salah satu penyebab utama kematian bagi anak-anak secara global, di Indonesia saat ini telah terjadi di Sebagian besar kabupaten dan kota. Asupan gizi yang kurang dapat berakibat pada daya tahan tubuh yang buruk sehingga rentan terhadap penyakit dan infeksi. Kabupaten Bima menjadi salah satu kabupaten dari 5 kabupaten di Provinsi NTB dengan angka prevalensi tertinggi kejadian gizi kurang pada anak balita hingga 3 tahun terakhir. Penelitian ini dilaksanakan di wilayah kerja Puskesmas Bajo Kabupaten Bima. Jenis penelitian adalah survei analitik dengan rancangan case control study, Populasi adalah semua anak balita di wilayah kerja Puskesmas Bajo sebanyak 83 orang. Sampel penelitian sebanyak 74 orang yang dibedakan atas kasus dan kontrol dengan perbandingan 1 : 1 pada kepercayaan 95 persen sehingga didapatkan masing-masing 37 anak balita, Analisis data mengacu pada prinsip uji Chi-Square. Faktor asupan energi, protein dan pola asuh berisiko tinggi dengan hubungan yang signifikan dengan kejadian gizi kurang dengan nilai OR > 1 dan nilai P ≥ nilai α (0.05). Disimpulkan bawa, faktor asupan energi, asupan protein dan pola asuh yang kurang baik pada anak balita secara langsung dapat menimbulkan atau menyebabkan serta memicu kejadian gizi kurang pada anak balita.

Kata Kunci: Balita, Gizi, Energi, Protein, Pola asuh

ABSTRACT

Malnutrition is one of the main causes of death for children globally, and at this time in Indonesia, it has occurred in most districts and cities. Inadequate nutritional intake can result in a poor immune system, making it susceptible to disease and infection. Bima Regency is one of the five regions in NTB Province with the highest prevalence of malnutrition in children under five for the last three years. This research was conducted in the working area of the Bajo Public Health Center, Bima Regency, and was an analytical survey with a case-control study project. The study sample of 74 people was differentiated into cases and controls with a ratio of 1: 1 at 95 percent confidence to obtain each of the 37 toddlers. Data analysis refers to the Chi-Square test principle. High-risk and significant energy intake, protein, and feeding patterns are associated with fewer nutritional events with OR > 1 and P ≥ α values. (0.05). It is concluded that factors such as energy intake, protein intake, and poor childcare patterns in babies can directly cause, or cause and trigger, the occurrence of less nutrition in toddler.

Keywords: Toddlers, Nutrition, Energy, Protein, Parenting

INTRODUCTION

Unicef reports that malnutrition is one of the leading causes of death for children globally, accounting for an estimated 50% of all child deaths worldwide [1]. 207 million children under the age of 5 worldwide are estimated to suffer from nutritional disorders, 52 million are waste and 155 million are malnourished [2].

Nutrition problems in Indonesia currently have occurred in about 77% of districts and 56% of cities, as well as 27,5% of children have nutritional problems, of which there are 19.2% have less nutrition and 8.3% have poor nutrition [3]. The age of children under five is an aging period that requires nutritional intake to support their health and the right time for their growth and expansion [4,5]. Malnutrition is the main cause of death for children aged less than 5 years with an estimated 45% [6].

Good and optimal nutritional intake for children and infants is an important part of supporting optimal growth and development. Poor nutritional intake can result in a poor immune system, making it vulnerable to disease and infection. Besides having an impact on growth and development, it will also lead to mental, cognitive, and brain development in the future [7,8].

Based on the results of tracing data on the health profile of the West Nusa Tenggara Provincial Health Office, it is known that the prevalence of malnutrition from 2019–2021 is still quite high compared to the standard set by the WHO (5%), although it has decreased, namely from 16.74% to 14.09%, while the standard indicator set is a maximum of 5% [9].

Bima Regency is one of the five regencies in West Nusa Tenggara Province with the highest prevalence rate of malnutrition in children under five since 2019. 20.93% of 33,885 children under five, in 2020 as many as 17.74% from 38,006 to 2021, which is 12.4% of 41,786 children under five, this seems to have decreased, but is still on a high scale, because the target for the national indicator is said to be good if it reaches 5% [10].

The problem of malnutrition can lead to vulnerability in groups of children and affect and slow down their growth and development [11]. Malnutrition is the main cause of delays in brain development in toddlers, which leads to motor skills, resulting in cognitive and speech delays and learning disabilities. [8]. Malnutrition can be caused by a mother's education being less than nine years and a history of exclusive breastfeeding. Toddlers with mothers with educations less than nine years are at risk of being three times more likely to experience malnutrition, while toddlers with no history of exclusive breastfeeding are at risk of being seven times more likely to experience malnutrition [12].

Based on this description, this research was carried out to identify risk factors that cause malnutrition in children under five, so that aspects can be used as a basis or consideration for interventions to prevent malnutrition in toddlers.

METHOD

The type of research used is an analytical survey with a design-case control study, accomplished by identifying subjects who are cases with positive characteristics (under-five children who are malnourished) whose causes (risk factors) are traced back and suspected of playing a role in the occurrence of the effect. This is done by comparing these risk factors to those of control subjects (subjects with negative characteristics). This research was carried out in the working area of the Bajo Primary Healthcare, Bima Regency, West Nusa Tenggara Province, in June–July 2021.

The population is all children under five in the working area of the Bajo Health Center, Bima Regency, West Nusa Tenggara Province. The research sample is determined based on the research approach, a case-control study that distinguished cases and controls with a 1: 1 ratio at 95 percent confidence, so that the

sample sizes for cases and controls were 37 samples each.

Determination of sample size using a large sample table for a research case-control study: by estimating the odds ratio within 50% of the true OR value with a 95% degree of confidence where the OR (risk level) = 2.00 and the proportion exposed in the comparison group P2 = 0.50, a sample size of 74 is obtained with a comparison of cases and controls of 1: 1. So 37 cases and 37 comparisons (controls) are needed. So the total sample is 74 samples (Table 9 of the Lameshow). Participants in this study were mothers of children under five who were sampled in the working area of the Bajo Health Center, Bima Regency, West Nusa Tenggara Province, and were divided into 2 groups, namely, cases and controls.

In data analysis, frequency distribution analysis was carried out on a single variable that was consideredrelated to be the research objective. Data analysis refers to the principle of the Chi-Square test, which is done to assess the magnitude of the relationship and the level of risk posed by the independent variable to the dependent variable, the level of risk is determined by considering the calculated value of OR. Where::
a. OR<1 means protective factor (protection)
b. OR=1 means not a risk factor
c. OR>1 means risk factor

RESULTS AND DISCUSSION

This research was conducted in the working area of the Bajo Health Center, Bima Regency, West Nusa Tenggara Province, on 74 samples. Based on the objectives of this study, the results obtained included, among other things, the characteristics of the respondents and the analysis of variables, more details can be seen below;

Characteristics Of Respondents

Tabel 1
Distribution of Respondent Characteristics

Categori	Indicator	Total (N 74)	Percent (%)
Sample Gender	Man	25	33,8
	Women	49	66,2
Participant Age Group sample	< 20	5	6,8
	20-25	13	17,6
	26-30	42	56,8
	31-35	9	12,2
	≥ 36	5	6,8
Participant education sample	Did not finish SD/MI	5	6,8
	Graduated from SD/MI	8	10,8
	SMP/MTs Equivalent	22	29,7
	SMA/MA Equivalent	39	52,7
Occupation of sample participants	Trader	3	4,1
	Farmer	6	8,1
	Odd	65	87,8

The characteristics of the respondents, in this case, were those of the participants in the selected sample, namely mothers of children under five. Based on the results obtained in Table 1, It is known that the sample consists of the majority of women, with a distribution of 66.2%. Likewise, with participants, the highest age group was aged 26 to 30 years with a distribution of 56.8%, while the lowest was in the age group ≥ 36 years and <20 years with a respective distribution of 6.8%. The highest educational level of the participants was high school or equivalent with a distribution of 52.7%, while the lowest was not graduating

from school at 6.8%, with the highest distribution of jobs being casual workers at 87.8% and the lowest being traders at 4.2%.

Analysis Data Variable

Tabel 2.
Analysis of The Causes of Malnutrition

Risk Factors	Indicator	Nutritional status				Total (N= 74)	Percent (%)	P	OR
		Casus (Malnutrition)		Control (Enough Nutrition)					
		n	%	n	%				
Energy Intake	Not enough	26	35,1	8	10,8	34	45,9	0.030	8.568
	Enough	11	14,9	29	39,2	40	54,1		
Protein Intake	Not enough	24	32,4	6	8,1	30	40,5	0.050	9.538
	Enough	13	17,6	31	41,9	44	59,5		
Parenting	Not enough	20	27,0	10	13,5	30	40,5	0.022	3,176
	Good	17	32,0	27	36,5	44	59,5		

The data in Table 2 shows the results of variable data analysis, which means that the factors that are at risk of causing malnutrition in children under five are energy intake, protein intake, and upbringing. These three factors have a high risk of undernutrition in children under five, where each OR value is greater than 1. Furthermore, these three factors have a direct and significant relationship to the incidence of undernutrition in children under five, with a P value of each (0.030, 0.050, and 0.022) or less than or equal to the value α = 0.05.

The results of this study indicate that children under five in the working area of the Bajo Health Center, Bima Regency, at their golden age, do not receive enough energy, protein, or a nurturing parenting style, causing a high risk of undernutrition. Rahmawati (2021), In her research, she stated that the age of toddlers is the golden age for children with nutritional needs that must be fulfilled [13].

In line with the research results obtained by Irmah (2021), parenting style greatly influences the fulfillment of children's nutrition, besides that the incidence of diarrhea and respiratory infections also contributes to

aggravating the situation [14]. Malnourished toddlers have very low growth hormone (1.25 ng/mL), which is caused by a lack of protein, calories, or total energy [15,16].

The results of another study in Turkey show that undernutrition will cause death, and infection, and increase the length of stay for children with congenital heart problems [17]. Malnutrition can cause infections and developmental delays. Infections due to malnutrition will be seen in pre-school-aged children [18].

Another study by Musnaimah (2020) showed different facts, that malnutrition is caused by the fact that many parents do not understand the importance of adequate children's nutritional intake to support their growth [19]. In addition, Dwi (2021) in his research concluded that the causes of malnutrition are the level of education of the mother, exclusive breastfeeding, history of infection, and parental income [12]. Another different result is that the mother's attitude, poor health, and environmental conditions are related to malnutrition, whereas energy and protein intake factors are not related to malnutrition [20].

CONCLUSIONS

Based on the results obtained, it can be concluded that the factors of energy intake and poor protein intake in children under five can directly cause or cause and trigger the occurrence of malnutrition in these children.

It is hoped that with the results of this study, actions or interventions to meet energy and protein intake in children under five, through food self-sufficiency in the Bajo Health Center area, Bima Regency, West Nusa Tenggara Province, so that the limited sources of energy and protein in the community can be fulfilled, then Bajo Health Center staff can do assistance and special childcare training related to fulfilling nutrition, for parents or mothers of children under five, so that the problem of parenting can be improved to overcome the problem of malnutrition.

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