

RELATIONSHIP OF NUTRITIONAL STATUS TO THE DEVELOPMENT OF TODDLERS

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ABSTRAK : HUBUNGAN STATUS GIZI DENGAN PERKEMBANGAN BALITA

Upaya pemantauan kesehatan sedini mungkin terhadap anak dilakukan sejak anak masih dalam kandungan sampai dia berusia 5 tahun, dengan tujuan agar anak mampu melangsungkan kehidupannya dengan baik sekaligus meningkatkan kualitas hidup guna mencapai tumbuh kembang yang optimal. Proporsi status gizi sangat pendek dan pendek pada balita di Indonesia yaitu 30,8%, demikian juga dengan proporsi status gizi buruk dan gizi kurang yaitu 17,7%. Untuk mengetahui hubungan status gizi dengan perkembangan balita di Posyandu Sukaraja Tiga.

Jenis penelitian ini merupakan jenis penelitian kuantitatif. Rancangan penelitian yaitu penelitian analitik observasional dengan pendekatan Cross Sectional. Populasi dalam penelitian ini 255 balita dan sampel sebanyak 156 responden balita dengan teknik pengambilan sample quota random sampling untuk posyandu di desa Sukaraja Tiga. Instrumen pengumpulan data adalah lembar KPSP, timbangan dan Infantometer. Analisa data menggunakan analisa univariat dan bivariate (chi-square).

Penelitian menunjukkan p value sebesar 0,023 ($p < \alpha = 0,05$), yang berarti bahwa terdapat hubungan signifikan antara status gizi dan skor KPSP balita usia 1-5 tahun di posyandu desa Sukaraja Tiga. Hasil penelitian menunjukkan bahwa dari 156 balita yang diperiksa KPSP, ada 56 balita (65,1%) mempunyai KPSP "sesuai", 15 (38,5%) balita dengan nilai "Meragukan", dan nilai KPSP "Penyimpangan" yaitu 17 (54,8%) balita dengan status gizi normal. Semakin baik gizi balita maka perkembangan balita pun semakin baik. Diharapkan orang tua lebih meningkatkan wawasan tentang gizi dan perkembangan anak sesuai usianya.

Kata Kunci : Balita, Perkembangan, Status Gizi, Wasting

ABSTRACT

Background : Efforts to monitor the health of children as early as possible are carried out from the time the child is still in the womb until he is 5 years old, with the aim that the child is able to live a good life while at the same time improving the quality of life in order to achieve optimal growth and development. The proportion of very stunted and short nutritional status in toddlers in Indonesia is 30.8%, so is the proportion of poor nutritional status and undernutrition which is 17.7%. Objective: To determine the relationship between nutritional status and toddler development at Posyandu Sukaraja Tiga

Methods : This research is a quantitative research. The research design is observational analytic research with a cross sectional approach. The population in this study were 255 toddlers and a sample of 156 respondents. sampling technique with quota random sampling. Data collection instruments are KPSP sheet, scales and Infantometer. Data analysis used univariate and bivariate (chi-square) analysis.

The research results showed a p value of 0.023 ($p < \alpha = 0.05$), which means that there is a significant relationship between nutritional status and KPSP scores of toddlers aged 1-5 years. The research results showed that out of 88 toddlers with normal nutritional status, 56 toddlers (65.1%) had "appropriate" KPSP, 15 (38.5%) toddlers with a "Doubtful" value, and 17 (54.8%) toddlers with "Directations". The better the nutrition of toddlers, the better the development of toddlers. It is expected that parents will increase their knowledge about nutrition and child development according to their age..

Keywords : Growth, Nutritional Status, Toddler, wasting

INTRODUCTION

Efforts to monitor the health of children as early as possible are carried out since the child is still in the womb until he is 5 years old, with the aim that the child is able to live a good life while at the same time improving the quality of life in order to achieve optimal growth and development.. (Potto, A. U, 2021).

Based on data from UNICEF 2017, around 22.7% of toddler in the world experience growth disorders (Sulistiyawati, dkk, 2022). While the developmental stages of toddlers today determine the future of the nation. General developmental delay is a state of significant developmental delay in two or more developmental domains. Child development consists of gross motor, fine motor, language/speech, and personal social/independence. The incidence of generalized developmental delay is estimated to be around 1-3% of toddlers. Nutritional problems that are a factor in toddler development problems such as unbalanced nutrition and infectious diseases which will have an impact on decreasing the health of toddlers so that nutritional status is not normal in toddlers (Dewi, 2010).

Nutrition that has poor quality and quantity will cause nutritional problems such as undernutrition, very thin nutrition, fat nutrition, and obesity so that abnormal nutritional status will have an impact on the structure and function of the brain so that brain cells will be reduced which can cause developmental problems in toddler (Fauzi, Y. A., 2019).

Wasting is a nutritional problem that is acute in nature, as a result of events that occur in a short time such as a lack of food intake. According to the Ministry of Health, wasting is characterized by a lack of weight according to the child's length/height (BB/TB). (Miko, dkk, 2017)

Delayed development also results in the function and structure of the brain, development in toddlers is influenced by many factors, one of which is nutrition consumed every day, which does not contain enough nutrients for the body of toddlers which has an impact on the development of toddlers (Gunawan, Fadlyana, & Rusmil, 2017).

The prevalence of malnutrition under five in Lampung province is 17%. Malnutrition status in toddlers is a condition that is always found in the community, therefore the percentage of malnutrition needs to be kept down so it does not exceed 5%. The Ministry of Health of the Republic of Indonesia, (2020) states that the target coverage for toddlers whose weight (D/S) is 75% in 2022. This is an effort to reduce the morbidity and mortality of children under five by carrying out health maintenance. The

prevalence of malnutrition in toddlers in Lampung Province is still quite high. The problem of malnutrition is closely related to several aspects, such as: food availability; knowledge that impacts dietary behavior and socioeconomic factors. Poor nutritional status will also have an impact on the child's growth rate, both physically and psychologically, including the level of intelligence. The health coverage of toddlers in East Lampung district in 2013 (72%) has increased compared to last year (62.4%) but has not yet reached the SPM target (80%) (East Lampung Health Office, 2013). The results of the pre-survey of 10 toddlers 1-5 years found that there were 4 toddlers with undernourished status, and as many as 3 people experiencing developmental delays, namely not being able to compose sentences at the age of 2 years, drawing to follow the lines. Based on this background, researchers aim to conduct research on the relationship between nutritional status and toddler development.

RESEARCH METHODS

This type of research is quantitative research. The research design is observational analytic research with a cross sectional approach. The population of this study were all toddlers in the Sukaraja Tiga Village Posyandu with a total of 255 toddlers. Inclusion Criteria: Toddlers aged 12-60 months which are toddler data in the period January-February 2022. The sampling technique used the quota random sampling technique, a sample of 156 was obtained. The research instrument used the KPSP questionnaire and data analysis used the Pearson Chi Square test.

RESEARCH RESULT

Table 1
Frequency Distribution of Mother's Education and Occupation at Posyandu, Sukaraja Tiga Village, East Lampung Regency in 2022

Carateristics	Frekuensi	Percentage
Pendidikan Ibu Rendah	67	43
Pendidikan Tinggi	89	57
Pekerjaan Ibu Tidak Bekerja	129	82.7
Bekerja	27	17.3

Based on Table 1, it is known that 67 (43%) of mothers have low education, 89 (57%) of mothers have higher education. 27 (17.3%) Mothers worked and most of 129 (82.7%) Mothers did not work.

Table 2
Frequency Distribution of Nutrition Status at Posyandu in Sukaraja Tiga Village, East Lampung Regency in 2022.

Status Gizi (Wasting)	Frekuensi	Percentage
Normal	88	56.4
Tidak Normal	68	43.6

Based on Table 2, it is known that at the Posyandu in Sukaraja Tiga Village, East Lampung Regency in 2022, the majority of respondents had normal nutritional status, totaling 88 respondents (56.4%) and 68 respondents (43.6%) with abnormal nutritional status.

Table 3
Distribution of Development Frequency at Posyandu in Sukaraja Tiga Village, East Lampung Regency in 2022

Growing Kids	Frekuensi	Percentage
Sesuai	86	54.8
Meragukan	39	25.2
Penyimpangan	31	20

Based on Table 3 it is known that in the Posyandu of Sukaraja Tiga Village, East Lampung Regency in 2022, the KPSP score of respondents who were "appropriate" was 86 respondents (56.8%), "Doubtful" was 39 respondents (25.2%) and "Deviance" was 31 respondents (20%).

Tabel 4
Hubungan Antara Status Gizi (wasting) dengan perkembangan Balita Di Posyandu Desa Sukaraja Tiga Kabupaten Lampung Timur Tahun 2022

Status Gizi	Perkembangan Anak						Total		P-Value
	Sesuai		Meragukan		Penyimpangan		N	%	
	N	%	N	%	N	%			
Normal	56	65.1	15	38.5	17	54.8	88	56.4	0.020
Tidak Normal	30	34.9	24	61.5	14	45.2	68	43.6	

Based on Table 4, it is known that in the Posyandu of Sukaraja Tiga Village, East Lampung Regency in 2022, out of 156 respondents there were 88 toddlers with normal nutritional status and of them 56 toddlers (65.1%) had the appropriate KPSP score, 15 (38.5%) toddlers with a "Doubtful" value, and the KPSP value "Deviance" is 17 (54.8%). There were 68 respondents with abnormal nutritional status and among them there were 30 (34.9%) respondents who had a KPSP score of "According", 24 (61.5%) respondents with a value of 53 "Doubtful" and 14 (45.2%) respondents with the "Deviation" value. Based on the results of statistical tests, a p-value of 0.023 or a p-value of <0.05 was obtained, which means that there is a relationship between nutritional status (wasting) and toddlers at Posyandu, Sukaraja Tiga Village, East Lampung Regency in 2022.

DISCUSSION

Research data shows that the nutritional status of toddlers in Posyandu Sukaraja Tiga Village is mostly good. Following the following categories, nutritional status in the normal category is a z-score value of -2SD to +1SD, malnutrition is a z-score value less than -2SD but more than -3SD, malnutrition is a z-score value less than -3SD and overnutrition is a z-score value of more than 2SD.

This research is in line with Gunawan's research (2016). Research with the title Relationship between nutritional status and development of children aged 1-2 years showed that most of the respondents had normal nutritional status (89.9%). And only (10.1%) with thin nutritional status.

Basically, the need for 54 calories for humans varies according to age, gender, activity, weight, height, and others. Toddlers 1-5 years can be divided into 2 namely, children aged over 1-3 years known as "batita" and children aged more than 3-5 years known as "preschool" age. Children under 5 years are a group that shows rapid body growth, but this group is the most common group that suffers from malnutrition (Supartini, 2014).

According to research by Fauzi et al (2019) gender, age, weight, mother's occupation, order of children. The nutritional adequacy rate between men and women is different, the difference lies in the children's activities every day, boys play more often which is more tiring than girls. Differences in the metabolism of boys and girls which are also related to children's daily activities.

Based on Table 3, it is known that at the Posyandu in Sukaraja Tiga Village, East Lampung Regency in 2022, KPSP scores of 55 respondents who "appropriate" totaled 86 respondents (56.8%),

"Doubtful" of 39 respondents (25.2%) and "deviations" amounted to 31 respondents (20%).

This research is in line with Gunawan's research (2016) where the results showed 90.25% of respondents had development according to their age and only 9.75% had doubtful development. Development will also experience progressive changes, impacting the process of maturity and individual experience, each individual in the journey of life will go through the first two processes, namely, growth, growth here leads to infancy, the second setback, setbacks will occur when the individual has stepped on late adulthood (Soetjningsih, 2012).

This aspect of development is qualitative in nature, namely the increased maturity of the functions of each part of the body, which begins with the heart being able to beat to pump blood, the ability to breathe until the child has the ability to lie on his stomach, sit, walk, talk, pick up objects around him, as well as the ability to be emotional and social child. The initial development stage will determine the next development (Mutiara Solechah dkk., 2017).

Relationship between Toddler Nutritional Status and Toddler Development Based on Table 4 it is known that in the Posyandu of Sukaraja Tiga Village, East Lampung Regency in 2022, out of 156 56 toddlers who checked the KPSP, there were 55 toddlers (64.6%) who had KPSP "appropriate", 15 (38, 5%) of toddlers with a value of "Doubtful", and a KPSP value of "Deviation" namely 17 (54.8%) toddlers with normal nutritional status, while there are 31 infants (36.4%) have an KPSP value of "Compliant", 24 (61, 5%) "Doubtful" toddlers and 14 (45.2%) toddlers "deviations" in abnormal nutritional status. Based on the results of statistical tests, a p-value of 0.023 or a p-value of <0.05 was obtained, which means that there is a relationship between nutritional status and toddler development at Posyandu, Sukaraja Tiga Village, East Lampung Regency in 2022.

According to Call and Levinson, nutritional status is influenced by two factors, namely food consumption and health level, these two factors are direct causes, while indirect causes are the content of nutrients in foodstuffs, eating habits, whether there is a food purchasing program outside the family, health maintenance, family purchasing power, and physical and social environment (Supariasa, 2012).

Another study explained that the causative factors for the incidence of wasting toddler include suboptimal breastfeeding, poor economic status and mother's education, diarrhea and respiratory tract morbidity, sanitation channels and living in rural areas associated with an increased likelihood of wasting in toddler. (Derso, 2017)

Malnutrition in toddlers can cause impaired child intelligence, decreased child productivity and low cognitive abilities and cause disruption of child development so that it can cause developmental delays (Yulistiyaningsih, 2014)

Child growth and development greatly determines quality resources, development in children is influenced by the environment and parents. Parents who are the closest people to the child must understand about the growth and development of children, not only that to achieve quality development they must be supported with good nutrition, because in nutrition there is continuity between nutritional intake and the amount of nutrients needed by the child's body. fulfill the various functions of the child's body. (Husnah, 2015).

This research is different from research conducted by Gunawan (2017) where there is no relationship between nutritional status and child development with a P(value) of 0.394. This difference also exists in research subjects, where the research subjects are children aged 1-2 years. At the age of 1-2 years, most children still receive attention from their mothers regarding their food, and are still drinking breast milk so that development is included in the doubtful category, there has been no development in the deviation category. It seems that subjects at the age of 1-2 years are still under the supervision of their mothers and receive adequate developmental stimulation.

Research conducted by Mutiara Solecah et al, (2017), with good nutritional status allows respondents to have good development as well. This research is strengthened by research conducted by Nurhayati (2019) where there is a relationship between nutritional status and child development. However, in this study not all respondents who had normal nutritional status also had good or appropriate development. There are still some children with normal nutritional status who have doubtful and deviant development, on the other hand there are still children with abnormal nutritional status but who have good development. This can happen because of factors other than nutritional factors that can affect children's development such as education and mother's occupation. In this study there were still 42.9% of mothers with low education. Parental education influences children's development, especially mother's education. Low maternal education has a risk for child development delays, because mothers do not know how to stimulate their child's development. Mothers with higher education are more open to receiving information from outside about good parenting practices, health care and children's education. Meanwhile in maternal

employment, 82.7% of mothers work as housewives. Mother's occupation can be related to economic status, where economic status is one of the factors that can affect children's development, especially intelligence, perhaps due to family limitations in providing various play facilities so that children less stimulation. A comprehensive effort to maintain the development of children as early as possible from the womb to the age of five. Provision of stimulation is needed according to the age of the child. Increasing the participation of mothers to always get information about children's development, so that if there is a suspicion of a disturbance or delay, its development can be detected as early as possible. The need for further research on child development, especially when children are under 2 years old.

CONCLUSION

There is a relationship between nutritional status and toddler development at Posyandu Desa Sukaraja Tiga in 2022 with a p(value) of 0.023.

SUGGESTION

There are many factors that influence development, in this study the researchers looked at the nutritional status of children. However, the child's nutritional status is not the main factor, so a comprehensive effort is needed to maintain the growth and development of the child as early as possible from the time he is in the womb to the age of five. Provision of stimulation is needed according to the age of the child. Increasing the participation of mothers to always get information about child development, so that if there is a suspicion of a disturbance or delay as early as possible the development can be detected. The need for further research on child development, especially when children are under 2 years old.

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