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THE IMPACT OF POVERTY, STUNTING AND WASTING ON THE SPECIFIC INDEX FOR STUNTING MANAGEMENT IN TODDLERS AGED 0-59 MONTHS IN DOMPU

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ABSTRACT

This research aims to obtain an analysis regarding the influence of poverty, stunting, and wasting on the special index for stunting management in children aged 0-59 months in Dompu Regency, West Nusa Tenggara, both partially and simultaneously. This research uses a descriptive quantitative approach, with the population being all toddlers aged 0-59 months in 10 health center areas in Dompu Regency, covering a period of 7 years from 2017 to 2023. The techniques used to collect data are literature study and documentation study, as this research utilizes secondary data. The data processing method in this research employs SPSS version 25. The research results indicate that poverty, stunting, and wasting have a positive and significant simultaneous effect on the special index for stunting management. However, when examined individually, poverty and stunting do not have a significant effect on the special index for stunting management, while wasting does have a positive and significant effect on it. Referring to the results of this research, efforts to maintain and even improve the variables that are still considered lacking in this study are necessary so that the rates of poverty, stunting, and wasting continue to decline, and the index specifically for stunting management increases as a form of the government's successful performance in efforts to reduce poverty, stunting, and wasting in accordance with the RPJM program and national programs that enable Indonesian children to grow up healthy and produce superior human resources.

Keywords: *Poverty, Stunting, Wasting, Nutrition Status, Special Index of Stunting*

ABSTRAK

Penelitian ini bertujuan untuk memperoleh analisis mengenai pengaruh kemiskinan, *stunting* dan *wasting* terhadap indeks khusus penanganan *stunting* pada balita 0-59 bulan di kabupaten Dompu Nusa Tenggara Barat, baik secara parsial maupun secara simultan. Penelitian ini menggunakan pendekatan kuantitatif deskriptif, populasi pada penelitian ini adalah seluruh balita usia 0-59 di 10 wilayah puskesmas di Kabupaten Dompu, yaitu sebanyak 7 tahun terakhir hingga tahun 2023. Teknik yang digunakan untuk mengumpulkan data yang digunakan adalah studi kepustakaan dan studi dokumentasi karena penelitian ini menggunakan data sekunder, metode Pengolahan data dalam penelitian ini menggunakan SPSS versi 25. Hasil penelitian menunjukan pengaruh kemiskinan, *stunting* dan *wasting* terhadap ikps memiliki pengaruh yang positif dan signifikan secara simultan, sedangkan secara parsial kemiskinan dan *stunting* tidak memiliki pengaruh signifikan terhadap indeks kkusus penanganan stunting, tetapi *wasting* memiliki pengaruh positif dan signifikan terhadap indeks kkusus penanganan stunting. Mengacu pada hasil penelitian ini, maka upaya mempertahankan bahkan meningkatkan varibel yang dianggap masih kurang pada hasil penelitian ini agar angka kemiskinan, *stunting* dan *wasting* terus ditekan dan angka indeks khusus penanganan *stunting* meningkat sebagai bentuk dari keberhasilan kinerja pemerintah dalam upaya menurukan angka kemiskinan, *stunting* dan *wasting* sesuai program rpjm dan program nasional yang menjadikan anak Indonesia bisa tumbuh sehat dan menghasilkan sumber daya manusia yang unggul.

Kata Kunci: Kemiskinan, *Stunting, Wasting*, Status Gizi, Indeks Khusus Penanganan *Stunting*

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INTRODUCTION

Poverty is defined as a condition in which an individual or a group of individuals lacks the economic ability to meet basic needs such as food, adequate housing, health care, and education to sustain and develop their lives due to insufficient income. Population indicators are categorized as poor based on the minimum expenditure value in rupiah required for an individual to meet their basic living needs for a month, including both food and non-food necessities. This consists of the Food Poverty Line (FPL) of 2100 kilocalories per capita per day and the Non-Food Poverty Line (NFPL), which represents the minimum expenditure value for non-food needs such as housing, clothing, education, and health (BPS, 2022).

Dompu Regency is one of the regencies in the West Nusa Tenggara Province located on Sumbawa Island. This regency consists of 8 districts and has an area of 2,324.55 km². It is bordered by Bima Regency and the Flores Sea to the east, the Indonesian Sea to the south, Sumbawa Regency to the west, and Bima Regency to the east. The population of Dompu Regency is 247,190 people, consisting of 239,610 men and 243,400 women. There are eight sub-districts, namely Dompu, Kempo, Hu'u, Kilo, Woja, Pekat, Manggelwa, and Pajo. It has 9 sub-dstricts and 72 villages. The number of poor residents in Dompu Regency from 2018 to 2023.

Year	Poor Population		Poverty Line (Rp/capita/ month)	Poverty Depth Index (P1)	Poverty Severity Index (P2)
	Number (thousands of people)	Percentage			
(1)	(2)	(3)	(4)	(5)	(6)
2018	30,74	12,40	284.188	1,59	0,34
2019	30,81	12,25	328.740	1,62	0,35
2020	30,97	12,16	362.142	1,65	0,34
2021	33,26	12,60	370.120	1,33	0,25
2022	33,27	12,40	404.413	1,49	0,32
2023	34,38	12,62	442.451	1,82	0,39

(Source: National Socio-Economic Survey and poverty information BPS NTB 2018-2023)

Poverty is closely related to children's nutritional status, which is very important because it can lead to health issues such as malnutrition. Nutritional status uses three indices to assess the

nutritional status of toddlers, namely Weight for Age (W/A), Height for Age (H/A), and Weight for Height (W/H), which compares a child's weight to the height achieved at a certain age (SSGI 2022).

Stunting, known as dwarfism, is a growth disorder that occurs in children under the age of five. Due to malnutrition and recurrent infections, especially during the First 1,000 Days of Life (FDL), which is from the birth of the fetus until the age of 23 months. A child is considered stunted if their height or length is less than two standard deviations below the average height or length for children of the same age (IKPS, 2019).

There are two types of causes of stunting, direct and indirect causes. Direct causes include infection status and food consumption, inadequate nutritional intake during pregnancy and malnutrition in infants, and the health conditions of mothers and infants during the first 1000 days after birth according to the Ministry of Health (Yankes Kemenkes, 2022).

owever, the risk of stunting can be influenced by indirect causes, such as breastfeeding or complementary feeding practices, psychosocial caregiving, the socioeconomic conditions of the community, sanitation and environmental hygiene, and healthcare services (Raras Arum, 2021).

The nutritional status figures for toddlers in Dompu Regency for the last 7 years showed the highest stunting in 2019 41.49% and experiencing a decline until the year 2023. Wasting showed the highest stunting in 2017 and experiencing a decline until the year 2023.

One of the other nutritional issues that is still being debated is wasting, which is a nutritional status problem that serves as an indicator of development success and affects future productivity. based on the results of the Basic Health Research (Riskesdas) 2018, it shows that the prevalence of malnutrition among toddlers in Indonesia based on weight-for-height did not experience a significant decrease, dropping from 13.9% in 2013 to 13.8% in 2018, until 2023 it

experienced a more significant decrease. According to WHO standards, an area is considered good when the prevalence of stunted children is less than 20% and the prevalence of underweight children is less than 5%. If the number of stunted children in an area is more than 20% and the number of underweight children is more than 5%, the area is said to be experiencing acute nutritional problems. (National pocketbook SSGI 2019).

Wasting is a nutritional issue in children categorized as underweight and severely underweight. Several factors, including socioeconomic factors, consumption factors, and maternal nutritional status factors, can lead to this growth disruption. The Upper Arm Circumference (UAC) indicator for mothers is a measure to assess the nutritional status of pregnant women, as pregnant mothers may experience Chronic Energy Deficiency (CED) if they do not consume enough protein and energy. Pregnancy with a high-risk condition increases the likelihood of wasting in the baby. Furthermore, the research found that infants diagnosed with Chronic Energy Deficiency (CED) have different birth weights. (Mustagfiroh 2020).

IKPS is a proxy indicator designed to measure the success of addressing nutritional status issues such as wasting, overweight, underweight, and specifically the prevention of stunting at the district/city, provincial, and national levels. which was created based on the 2017 Susenas data, has been released by BPS as a methodological guide. Health, nutrition, access to food, housing, and social protection are all aspects measured on a scale. Meeting the data and information needs to monitor the government's performance in addressing nutrition issues.

METHOD

Research methods are scientific ways to obtain data with specific purposes and uses. The method used in this research is the quantitative method. The quantitative method is used to collect and analyze numerical data objectively. The data to be used in this research will come from

secondary data collected from the Dompu District Health Office and the Dompu Central Statistics Agency, specifically data on poverty, stunting, wasting, and the Poverty Line Index.

The population in this study consists of all toddlers aged 0-59 months from 2017 to 2023 in Dompu Regency. The technique used in sampling is proportional random sampling, which is a random sampling method employed to collect samples from the research population.

There are two variables used in this research, namely the Independent Variable and the Dependent Variable. In this study, the independent variables are poverty, stunting, and wasting, while the dependent variable is the IKPS score.

This research utilizes data collection techniques through literature studies, specifically data collected from the Central Statistics Agency (BPS) and Riskesdas regarding the IKPS, data from the e-PPBGM of the Dompu District Health Office concerning stunting, wasting, and poverty data obtained from the Dompu District Statistics Agency. Subsequently, the collected data will be analyzed. The data to be analyzed includes all data where Variable (X1) is poverty, Variable (X2) is stunting, Variable (X3) is wasting, and Variable (Y) is the Special Stunting Handling Index, processed using SPSS version 25, with the results as detailed in the results subsection below.

RESULT AND DISCUSSION

The results of the descriptive statistical test indicate that there is a low variation between the maximum and minimum values during the observation period, or in other words, there is not a significant gap in the distribution of the IPKS data and the lowest and highest values of poverty, stunting, and wasting. The result of the normality test using the Kolmogorov-Smirnov method is 0.148. Since the p-value is greater than alpha (0.148 > 0.05), it can be concluded that the residual data is normally distributed.

The results of the heteroskedasticity test indicate that there is no sign of heteroskedasticity in the regression analysis, as shown by the significance value (p-value) of each independent variable being greater than the 5% significance level, or a significance value of (0.336 > 0.05). The results of the multicollinearity test show that the VIF values for each independent variable are below 10, specifically for the poverty variable (X1) = 1.285, the stunting variable (X2) = 1.413, and the wasting variable (X3) = 1.714. Based on these results, it can be concluded that there is no multicollinearity among the independent variables in the model.

The result of the autocorrelation test, the Durbin Watson (DW Statistic) value from the regression analysis, is 2.047. Thus, this Durbin Watson value is greater than the DU table (2.047 > 0.256) and the Durbin Watson value is less than 4 minus the DU table (2.047 < (4 - 0.2563 = 3.7437)), falling within the interval of 0.256 to 3.7437 (0.256 < 1.828 < 3.7437). Therefore, it can be confirmed that there is no autocorrelation phenomenon in the multiple linear regression model.

The results of the determination coefficient test indicate that the determination coefficient value of the Special Index for Stunting Handling (Y) is influenced by Poverty (X1), Stunting (X2), and Wasting (X3). It can be concluded that the relationship between the independent variables and the dependent variable is very strong at 83.1%, while the remaining 16.9% is influenced by other factors that were not studied.

The result of the partial hypothesis test shows that the calculated t value for the poverty variable (X1) is -0.915, while the t table value is 3.18245. Due to the fact that the calculated t-value is less than the table t-value, the null hypothesis (H0) is accepted and the alternative hypothesis (Ha) is rejected, meaning there is no positive and significant effect of poverty on the special index forstunting.

The calculated t value for the Stunting variable (X2) is 0.483 and the t table value is 3.18245. Since the calculated t value is less than the t table value, H0 is accepted and Ha is rejected, meaning

there is no positive and significant effect of stunting on the special handling index for stunting. The calculated t value for the wasting variable (X3) is 4.418 and the table t value is 3.18245. Since the calculated t value is greater than the table t value, H0 is rejected and Ha is accepted, meaning there is a positive and significant effect of wasting on the special handling index for stunting.

The simultaneous test or F test yielded an F value of 10.847 with a p-value (sig) of 0.041. With $\alpha = 0.05$ and degrees of freedom $k = 3$ and $v = (n - (k + 1)) = 7 - (3 + 1) = 3$, the F table value obtained is 9.28. Since the calculated F value is greater than the table F value ($10.847 > 9.28$), H0 is rejected and Ha is accepted, meaning there is a positive and significant effect of poverty, stunting, and wasting on the special index for handling stunting.

CONCLUSION

The description based on the poverty variable (X1) shows a mean value of 0.3586 and a standard deviation smaller than the mean, which is 0.08275. The stunting variable (X2) has a mean value of 34.8486 and a standard deviation smaller than the mean, which is 4.95248. The wasting variable (X3) has a mean value of 12.2657 and a standard deviation smaller than the mean, which is 1.70242. The special index for stunting handling variable (Y) has a mean value of 64.7429 and a standard deviation smaller than the mean, which is 3.30126. Included in the good category. Partially, there is no significant relationship between poverty and stunting on the stunting handling index, while wasting has a positive and significant relationship with the stunting handling index. Simultaneously, there is a positive and significant influence of poverty, stunting, and wasting on the special index for stunting management.

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