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The Relationship Between Nutritional Status and Stunting Toddlers At The Posyandu Pelangi in the Working Area Of The Batu Aji Health Centre in Batam

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Abstract

Stunting is a condition of failure to thrive in children under five as a result of chronic malnutrition so that children are too short for their age. Posyandu Pelangi is the area with the highest incidence of stunting in the working area of the Batu Aji Health Center in 2022. The purpose of this study was to determine the relationship between nutritional status and the incidence of stunting in children under five at the Pelangi Posyandu in the working area of the Batu Aji Health Center Batam City. This study uses a cross-sectional design approach, which is an observation carried out at the same time (point time approach) which was carried out in October with the target of stunting toddlers at Posyandu Pelangi working area of Batu Aji Health Center, the sample in this study amounted to 35 stunting toddlers. The sampling technique in this study used total sampling. Methods of collecting data by filling out the observation sheet and then analyzed univariate and bivariate (chi-square). The results of the univariate analysis, most of the stunting toddlers were very underweight and underweight, the results of the bivariate analysis obtained p value 0.003 <0.05, it can be concluded that H0 is rejected and Ha is accepted, which means that there is a relationship between the nutritional status of children under five and stunting in children under five at the Pelangi Posyandu in the working area of Batu Aji Health Center Batam City. It is recommended to the working area of Batu Aji Health Center to further improve the programs that have been established as prevention, management and follow-up measures in dealing with toddlers who experience stunting.

Keywords: Stunting; Nutritional status;Toddlers.

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Abstrak

Stunting merupakan kondisi gagal tumbuh pada anak balita akibat dari kekurangan gizi kronis sehingga anak terlalu pendek untuk seusianya. Posyandu Pelangi merupakan wilayah kejadian *stunting* tertinggi diwilayah kerja Puskesmas Batu Aji pada Tahun 2022. Tujuan penelitian ini adalah untuk mengetahui hubungan status gizi *Stunting* pada balita di Posyandu Pelangi wilayah kerja puskesmas Batu Aji Kota Batam. Penelitian ini menggunakan pendekatan desain *cross sectional* yaitu *s*uatu observasi yang dilakukan pada saat bersamaan (*point time approach*) yang dilaksanakan pada bulan oktober dengan sasaran balita *stunting* di Posyandu Pelangi wilayah kerja Puskesmas Batu Aji, sampel dalam penelitian ini berjumlah 35 balita *stunting.* Teknik pengambilan sampel pada penelitian ini menggunakan *total sampling*. Metode pengumpulan data dengan cara mengisi lembar observasi kemudian dianalisis univariat dan bivariate (*chi-square*). Hasil analisis univariat sebagian besar balita *stunting* mengalami berat badan sangat kurang dan berat badan kurang, Hasil analisis bivariat diperoleh *p value* 0.003<0.05, maka dapat disimpulkan bahwa H0 ditolak dan Ha diterima yang artinya ada hubungan antara status gizi balita dengan *stunting* pada balita di Posyandu Pelangi wilayah kerja Puskesmas Batu Aji Kota Batam. Disarankan kepada wilayah kerja Puskesmas Batu Aji untuk lebih meningkatkan program yang telah ditetapkan sebagai langkah pencegahan, penatalaksanaan maupun tindakan lanjut dalam menghadapi balita yang mengalami *stunting*.

***Kata Kunci**:* Status Gizi, Balita, *Stunting.*

Introduction

Stunting is a condition of failure to thrive in children under five years old (infants under five years old) due to chronic malnutrition so that children are too short for their age. WHO defines stunting as growth that describes the non-achievement of growth potential as a result of suboptimal health and nutritional status. According to the United Nations International Children's Emergency Fund (UNICEF) one in three children is stunted. Around 40% of children in rural areas experience stunted growth (Hasandi, Maryanto, & Anugrah, 2019). In 2017, 22.2% or around 150.8 million children under five in the world were stunted (Eltimates, 2018) In 2017, more than half of the world's stunted children were from Asia (55%) while more than a third (39%) lived in Africa. Of the 83.6 million stunted children under five in Asia, the

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largest proportion was from South Asia (58.7%) and the smallest proportion was from Central Asia (0.9%). Data on the prevalence of stunting among children under five collected by the World Health Organization (WHO) in 2018, Indonesia is the third country with the highest prevalence in the South-East Asia Region (SEAR). The prevalence of stunting in Indonesia from 2005-2017 was 36.4% (Riskesdes, 2018). Basic health research (Riskesdes) in 2018 stated that the percentage of malnutrition in under-five children in Indonesia was 4.5%, while the percentage of under-nutrition was 7.2% In under-five children, the percentage of malnutrition was 3.5%, while the percentage of under-nutrition was 7.2%.

Based on the results of monitoring the nutritional status of Batam City during 2021, the highest prevalence of stunting was in the Pancur Health Centre working area with a prevalence of 9.87% of 5188 children under five, then the next order was the Lubuk Baja Health Centre working area with a prevalence of 9.70% of 2793 children under five, then the Tanjung Sengkuang Health Centre working area with a prevalence of 8. 79% of 2444 children under five, followed by the Batu Aji and Tanjung Uncang Puskesmas with a prevalence of 6.92% of 7489 children under five, followed by the Sekupang, Tiban Baru, and Mentarau Puskesmas with a prevalence of 6.60% of 8451 children under five, followed by the Bulang Puskesmas with a prevalence of 6. 49% of 904 children under five, followed by Puskesmas Baloi Permai and Botania with a prevalence of 5.76% of 8131 children under five, followed by Puskesmas Sambau, Kampung Jabi, and Kabil with a prevalence of 4.03% of 5399 children under five, followed by Puskesmas Sei Langkai and Sei Lekop with a prevalence of 3. 70% of 9890 children under five, then the working area of Puskesmas Galang and Rempang Cate with a prevalence of 1058 children under five, then the working area of Puskesmas Sei Panas and Tanjung Buntung with a prevalence of 2.45% of 5050 children under five, and finally the working area of Puskesmas Belakang Padang with a prevalence of 1.88% of 1072 children under five.

The Batu Aji and Tanjung Uncang health centre working areas have decreased compared to the previous year, in 2020 there was a decrease in stunting cases with a total of 7792 children under five years old.

Methodology

Study This study was conducted at Posyandu Pelangi in the working area of Batu Aji Health Centre Batam City in 2022, using total sampling method. Respondents of this study consisted of 35 stunted toddlers in Posyandu Pelangi. The research was conducted in October 2022. Tools Data collection methods by filling out observation sheets then analysed univariate and bivariate (chi-square).

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Results

From the results of research conducted in October 2022 at Posyandu Pelangi in the working area of the Batu Aji health centre, Batam city in 2022 using observation sheets with the characteristics of 35 respondents to determine the relationship between nutritional status and the incidence of stunting in toddlers at Posyandu Pelangi

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in the working area of Batu Aji health centre, Batam city in 2022. The data obtained will be presented in the form of tables and narratives. From the data obtained the following results:

Table 1. Frequency Distribution of Respondents Based on Nutritional Status of Toddlers at Posyandu Pelangi in the Working Area of Batu Aji Health Centre, Batam City, 2022

Nutrinional Status	Frequency	Percentage (%)
Very low weight	10	28,6
Underweight	17	48,6
Normal weight	8	22,9
Total	35	100,0

Table 2. Frequency distribution of Respondents Based on Stunting Status in Toddlers at Posyandu Pelangi, Batu Aji Health Centre Work Area, Batam City, 2022

Stunting in toddlers	**Frequency**	**Percentage (%)**
extremely short	16	45,7
Short	19	54,3
Total	35	100,0

Table 3. Relationship between Nutritional Status and Stunting Status of Toddlers at Posyandu Pelangi, Batu Aji Health Centre, Batam City, 2022

Nutrinional Status	***Stunting in toddlers***						
	extremely short		short		Total		*P value*
	F	**%**	*F*	%	*F*	%	0,003
Very low weight	8	22,9	2	5,7	10	28,6	
Underweight	8	22,9	9	25,7	17	48,6	
Normal weight	0	0,0	8	22,9	8	22,9	
Total	16	45,7	19	54,3	35	100	

Discussion

Nutritional Status in Toddlers. Based on table, it is known that of the 35 respondents of stunting toddlers at the rainbow posyandu in the Batu Aji Health Centre working area in Batam City in 2022, the frequency of toddlers with very underweight was 10 respondents (28.6%), underweight was 17 respondents (48.6%) and normal weight was 8 respondents (22.9%). So, based on the results of univariate analysis that of the 35 respondents almost half of the stunted toddlers were underweight, namely 17 toddlers (48.6%).

The results of the research conducted by researchers are in line with the theory according to Fentia (2020), namely, body weight is a parameter that explains a picture of the essence of the body, body mass is sensitive to viruses or infectious diseases and instability of appetite and the amount of food consumed. If the state of health, and nutritional needs are fulfilled, the body weight following age will be optimal. Malnutrition status or better known as under nutrition is a nutritional state of a person where the incoming energy is less than the energy released by the body.

The results of this study are in line with research by Yuningsih (2021) showing that the majority of toddlers who are stunted either with short or very short conditions with nutritional status are less, namely 26 (33%), while the smallest are with a nutritional status of more than 10 (12%) and stunting conditions with normal nutritional status as many as 19 (12%). Similar research was also conducted by nurhasanah

Incidence of Stunting in Toddlers. Job Based on table, it is known that out of 35 respondents of stunting toddlers at the Pelangi posyandu in the Batu Aji Health Centre working area of Batam City in 2022, the frequency of very short toddlers was found to be 16 (45.7%) respondents and the frequency of short toddlers was 19 respondents (54.3%). So, based on the results of univariate analysis it can be concluded that of the 35 respondents, more than half were found to have short stature as many as 19 toddlers (54.3%).

The results of the research conducted by researchers are in line with the theory according to Wahidah (2019), namely, Children who experience stunting are caused because children do not get special attention during the golden age or the first thousand days of life because the golden age is a determinant of a person's level of growth, intelligence, and productivity in the future. Babies who receive nutrition in the womb and get breast milk after the birth period have a long-term impact on future life, if the fulfilment of nutrition in the womb and the receipt of breast milk after the birth of the baby occurs properly, it will avoid stunting (Wahidah, 2019).

This research is in line with Yuningsih (2021) which shows that most of the stunted toddlers experience very short TB conditions with a Z score of -2, Similar research was also conducted by Nurhasanah (2019) in the Langensari II Puskesmas Working Area in Banjar City, which showed that most of the toddlers were in the stunting category (body weight).

Relationship between Nutritional Status and the Incidence of Stunting in Toddlers

Desire Based on table, it is known that of the 35 respondents of stunting toddlers at the Pelangi posyandu in the Batu Aji Health Centre working area of Batam City in 2022, data obtained that of 10 toddlers (28.6%) with very low body weight who experienced a very short body were 8 (22.9%) respondents and toddlers who experienced a short body were 2 (5.7%) respondents. hereas from 17 toddlers (48.6%) with underweight who experienced a very short body amounted to 8 (22.9%) respondents and toddlers who experienced a short body amounted to 9 (25.7%) respondents. And of the 8 (22.9%) normal weight toddlers who experienced a very short body were 0 respondents and toddlers who experienced a short body were 8 (22.9%) respondents.

The statistical results obtained a p value of 0.003 with a meaning limit of 0.05, this means that the p value of 0.003 <0.05, it can be concluded that H0 is rejected and Ha is accepted, which means that there is a relationship between the nutritional status of toddlers with stunting in toddlers at Posyandu Pelangi in the Batu Aji Health Centre working area of Batam City Year 2022.

The results of the research conducted by researchers are in line with the theory according to Wahidah (2019), namely, nutritional status is a sign of appearance caused by the balance between nutritional intake on the one hand and nutritional expenditure on the other which can be known through indicators of body weight and height. nutritional picture is a person's health condition as a description of the consumption of food nutrients that are entered into the body. nutrinional status research

Conclusions

Most From the results of research conducted in October 2022 on 35 respondents at Posyandu Pelangi in the working area of Batu Aji Health Centre Batam City in 2022:

It is known based on the results of univariate analysis that of the 35 respondents of stunting toddlers at the Pelangi posyandu in the Batu Aji Health Centre working area of Batam City in 2022, almost half of the stunting toddlers were underweight, namely 17 toddlers (48.6%);

It is known that based on the results of univariate analysis, it can be concluded that out of 35 respondents of stunted toddlers at the Pelangi posyandu in the Batu Aji Health Centre working area of Batam City in 2022, more than half of the respondents experienced a short body, namely 19 toddlers (54.3%);

The statistical results obtained a p value of 0.003 with a meaning limit of 0.05, this means that the p value of 0.003 <0.05, it can be concluded that H0 is rejected and Ha is accepted, which means that there is a relationship between the nutritional status of toddlers with stunting in toddlers at Posyandu Pelangi, Batu Aji Health Centre, Batam City in 2022.

The Suggestions

The suggestions that will be conveyed in relation to the research are as follows:

For the work area of Batu Aji Health Centre Batam City

It is expected that the results of this study can be a source of information and further improve the programme that has been set as a management step and further action in monitoring the development of nutritional status and tackling the problem of stunting in toddlers, can carry out targeted interventions, overcome stunted toddlers, conduct regular evaluations of the programme whether it is on target, because there are still some toddlers who experience stunting.

For Institutions

It is hoped that this research can be a useful source for educational institutions in making health promotions and being able to analyse the factors that influence stunting in toddlers.

For further researchers

Stunting is a multifactorial public health problem. It is hoped that future researchers can examine stunting factors that were not examined in this study.

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