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THE FACTORS INFLUENCING DECREASE IN STUNTING PREVALENCE AMONG TODDLERS IN THE WORKING AREA GLUGUR DARAT COMMUNITY HEALTH CENTER, EAST MEDAN DISTRICT, MEDAN CITY

Rita Turnip [*], Ismail Efendy, Ramadhani Syafitri Nasution
Faculty of Public Health, Public Health Science Study Program, Institut Kesehatan Helvetia
Jl. Kapten Sumarsono No. 107, Medan, Sumatera Utara, Indonesia
Email: ritaturnip01@gmail.com

Abstrak

The World Health Organization (WHO) estimates that 165 million children under the age of 5 in the world will be affected by malnutrition if efforts to reduce the prevalence of stunting continue on an ongoing basis, this is projected to be 127 million in 2025. Data from the Glugur Darat Health Center, the incidence of stunting in 2023 was 5 people cases, while 24 people experienced malnutrition. The aim of the research is to determine the factors that influence the reduction in the incidence of stunting among toddlers in the Glugur Darat Health Center Working Area, East Medan District, Medan City. The research design uses quantitative with a cross sectional approach. The population in this study were all mothers who had toddlers at the Glugur Darat Community Health Center, East Medan District, Medan City, namely 6,672 toddlers, with a sample size of 99 mothers who had toddlers. Data analysis uses univariate, bivariate and multivariate analysis. The results of the research show that there is an influence of food provision, personal hygiene, parenting patterns, utilization of health services on reducing the incidence of stunting among toddlers in the Glugur Darat Health Center Working Area, East Medan District, Medan City. Meanwhile, the most dominant factor is food provision. The conclusion of this research is that there is an influence of food provision, personal hygiene, parenting patterns, utilization of health services on reducing the incidence of stunting in toddlers in the Glugur Darat Health Center Working Area, East Medan District, Medan City. It is recommended that the Glugur Darat Health Center be able to create interesting education for mothers with toddlers so that they want to monitor their children at the puskesmas or posyandu, such as conducting workshops/demonstrations on how to provide good and correct and nutritious food for their children, as well as how to process it. diverse and nutritious food so that children get good nutritional intake as an early effort to reduce the incidence of stunting and improve family health.

Keywords: Food Provision, Personal Hygiene, Parenting Patterns, Utilization of Health Services, Reduction in Stunting Incident

Introduction

The toddler period is a critical stage in growth and development because children are prone to illness and malnutrition during this time. Toddlers are more susceptible to infectious diseases as they become active and engage in play, making them easily contaminated by dirt. Additionally, this period sees rapid development in language skills, creativity, social awareness, emotional intelligence, and intellect, laying the groundwork for future development [1].

Stunting, a condition where a child's height is significantly below the norm, is not uncommon during this growth and development phase. According to WHO, an estimated 165 million children

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under the age of 5 worldwide were affected by malnutrition in 2021 [2], with stunting being a significant issue. Stunting has been identified as a major public health priority, with specific targets set to reduce its prevalence by 40% between 2010 and 2025. If efforts to reduce stunting continue, it's projected to decrease to 127 million by 2025 [3].

In developing and low-income countries like those in Asia and Africa, the prevalence of stunting is notably high, affecting one in three children, with rates reaching 46% in some areas. Indonesia ranks fifth globally in terms of the highest prevalence of stunted children, with 7.8 million affected, following India, China, Nigeria, and Pakistan [4].

The Health Profile of North Sumatra, based on the Indonesian Nutritional Status Survey (SSGI) in 2022, saw a decrease of 4.7% in the prevalence of stunting, dropping to 21.1%, from the previous 25.8% in 2021. However, there are still nutritional issues among toddlers, with 0.13% suffering from Malnutrition, 1.98% from Undernutrition, 2.61% being Stunted, and 2.13% being Underweight. The prevalence of malnutrition in 2018 and 2019 remained the same at 0.13%. Comparing undernutrition prevalence to 2018 (1.66%) and 2019 (1.98%), there was an increase of 0.32%. Stunted toddlers were 1.51% in 2018 and rose significantly to 2.61% in 2019, a significant increase of 1.1%. Conversely, underweight toddlers were 2.33% in 2018 and decreased to 2.13% in 2019, a decrease of 0.2% [5].

The number of stunted toddlers in Medan City has seen a drastic decrease. In February 2022, 550 toddlers were recorded as stunted, but by August of the same year, the number dropped to 364. By February 2023, the number further decreased to 298 stunted toddlers. Additionally, data showed that 0.11% of toddlers were undernourished, 0.46% were wasted, and 0.3% were. Stunting not only hampers a child's development but also has long-term health consequences, including increased morbidity and mortality rates during childhood, diminished cognitive and psychological function in school, and heightened risks of chronic diseases such as heart disease, stroke, hypertension, and type 2 diabetes in adulthood [5].

To combat stunting, the Indonesian government has implemented policies such as Presidential Regulation No. 42 of 2013, which aims to improve nutrition within the first 1000 days of a child's life. However, effective implementation and concerted efforts from all stakeholders are crucial to achieving meaningful progress in addressing this issue [6].

Based on preliminary surveys conducted in the Glugur Darat Community Health Center's working area in East Medan District, it's evident that stunting cases persist despite efforts to combat them. Interviews with mothers revealed dietary issues and a lack of nutritional diversity, contributing to stunting among toddlers. Addressing these factors requires targeted interventions and education to ensure proper nutrition and healthy growth for children during their formative years.

Metode

The research design employs a quantitative method utilizing an analytical survey with a cross-sectional study approach, a research design where independent and dependent variables are measured and collected simultaneously. The population of this study comprises all mothers with toddlers registered at Glugur Darat Community Health Center in East Medan District, Medan City, totaling 6,672 toddlers in 2022. The sample size for investigation is 99 toddlers, selected using stratified random sampling technique. Data analysis encompasses univariate, bivariate, and multivariate analyses. The research is conducted at Glugur Darat Community Health Center in East Medan District, Medan City, scheduled from June to October 2023.

Result and Discussion

Table 1 shows that respondents aged 25-30 years accounted for 50 individuals (50.5%), respondents aged 31-35 years accounted for 33 individuals (33.3%), respondents aged 36-40 years accounted for 14 individuals (14.1%), and respondents aged > 41 years accounted for 2 individuals (2.0%). There were no respondents with primary school education, while 11 individuals (11.1%) had completed junior high school, 80 individuals (87.9%) had completed senior high school, and 8 individuals (8.1%) had tertiary education (D3, Bachelor's, Master's). Regarding occupation, 56 individuals (56.6%) were housewives, 21 individuals (21.2%) were entrepreneurs, 6 individuals (6.1%) were civil servants, and 16 individuals (16.2%) were private employees.

Table 1 Age, Gender, and Occupation Distribution of Respondents in the Glugur Darat Community Health Center Area, East Medan District, Medan City

Age (Years)	Frequency (f)	Percentage (%)
25-29	50	50,5
30-35	33	33,3
35-39	14	14,1
40-44	2	2,0
Education		
Elementary School	0	0,0
Junior High School	11	11,1
Senior High School	80	80,8
University (D3, S1, S2)	8	8,1
Occupation		
Housewife	56	56,6
Self-Employed	21	21,2
Civil servants	6	6,1
Private Employed	16	16,2
Total	**99**	**100,0**

Table 2 The Influence of Food Provision on the Reduction of Stunting Incidence Among Toddlers in the Working Area of Glugur Darat Community Health Center, East Medan District, Medan City

Food Provision	Reduction of Stunting Incidence				Total		*p*-Value
	Stunting (<-2SD)		Not Stunting (-2SD s/d 2SD)				
	f	%	f	%	f	%	
Less Good	63	63,6	13	13,1	76	76,8	**0,000**
Good	3	3,0	20	20,2	23	23,2	
Total	**66**	**66,7**	**33**	**33,3**	**99**	**100**	

Observation results from Table 2 also indicate that the majority of mothers stated that they provide their children with only one type of side dish, such as rice and tofu, rice and fish. Additionally, observations show that sometimes children feel more satisfied with just snacking. Moreover, in terms of food quantity, most mothers mentioned that their children eat with a full plate portion, but the food often remains unfinished, and the meals are not served on time. Consequently, it can be concluded that the majority of toddlers have inappropriate eating habits regarding the type of food, food quantity, and meal schedule.

The food provided by mothers to toddlers lacks variety, and mothers also lack knowledge on how to select nutritious foods. This is because it is still found in the field that mothers with basic education, specifically those with a junior high school level, account for 11 individuals (11.1%),

resulting in toddlers being given whatever food is available without considering the nutritional value. If this continues, it poses a risk of stunting in children.

Previous research has shown that there is a correlation between eating habits and the occurrence of stunting in toddlers, with a risk factor of 5.1. This implies that families who instill good eating habits in toddlers will reduce the risk of stunting, whereas families with poor eating habits will increase the risk of stunting in toddlers [7].

The condition of stunting indicates long-term (chronic) malnutrition, making adequate nutrition fulfillment crucial in early age, especially during the first 1000 days of life. Toddler eating habits should be tailored to their age and body needs, considering the sufficient intake of nutrients for both energy and optimal growth and development. Therefore, meal planning should encompass the types of foods provided, the portion sizes, and meal schedules [8].

Table 3 The Influence of Personal Hygiene on the Reduction of Stunting Incidence Among Toddlers in the Working Area of Glugur Darat Community Health Center, East Medan District, Medan City

Personal Hygiene	Reduction of Stunting Incidence				Total		*p*-Value
	Stunting (<-2SD)		Not Stunting (-2SD s/d 2SD)				
	f	%	f	%	f	%	
Less Good	49	49,5	13	13,1	62	62,6	**0,001**
Good	17	17,2	20	20,2	37	37,4	
Total	**66**	**66,7**	**33**	**33,3**	**99**	**100**	

The observation results indicate that most toddler caregivers still struggle with maintaining the cleanliness of both the child and the living environment. Practices such as bathing the child only once a day, not washing hands properly, especially with soap, before preparing food for the child, neglecting the cleanliness of the child's nails, teaching the child to clean themselves after defecation or urination using only water without soap, and infrequently boiling drinking water are common. Consequently, it can be concluded that the majority of hygiene practices for toddlers are still inadequate, both in terms of the child's personal hygiene and the cleanliness of the environment.

The research findings are consistent with studies conducted in coastal areas, which demonstrate a relationship between personal hygiene practices and the occurrence of stunting. Another study by Nshimyiryo, et al., found that among 462 cases of diarrhea in toddlers, 207 (45%) were stunted. There was a significant association between a history of diarrhea and stunting ($p = 0.01$) [9]. Toddlers with a history of infectious diseases were 0.13 times more likely to experience stunting than those without such a history, with a minimum risk of 0.04 and a maximum risk of 0.38. The Chi-square statistical test yielded a p-value of 0.01, indicating a significant difference in the history of infectious diseases between stunted and non-stunted toddlers [10].

Based on the facts and theories above, it is argued that the majority of respondents have inadequate personal hygiene practices. This is evident from the questionnaire responses, where most respondents did not answer according to proper hygiene practices, leading to issues with inadequate personal hygiene practices. Generally, whether a toddler is stunted or not, the environment in which they live is similar; what sets them apart is the hygiene practices of each family. Many toddler caregivers still struggle with maintaining the cleanliness of the living environment, awareness of food safety for children, poor cleanliness of eating utensils, infrequent boiling of drinking water, bathing the child only once a day, neglecting dental hygiene, overlooking the cleanliness of the child's nails, and frequently purchasing snacks from outside for the child. Therefore, awareness and optimal levels

of knowledge are required so that respondents can engage in proper and maximal personal hygiene practices.

Table 4 The Influence of Parenting Patterns on the Reduction of Stunting Incidence Among Toddlers in the Working Area of Glugur Darat Community Health Center, East Medan District, Medan City

Parenting	Reduction of Stunting Incidence				Total		*p*-Value
	Stunting (<-2SD)		Not Stunting (-2SD s/d 2SD)				
	f	%	f	%	f	%	
Less Good	57	57,6	17	17,2	74	74,7	**0,000**
Good	9	9,1	16	16,2	25	25,3	
Total	**66**	**66,7**	**33**	**33,3**	**99**	**100**	

The role of a mother is crucial, especially in providing nutrition to her child. A mother should be able to provide attention, support, and exhibit good behavior, particularly in nutritional aspects. This includes educating about eating habits, offering nutritious and healthy food, maintaining nutritional hygiene, personal hygiene for both herself and the child, as well as ensuring a clean environment during food preparation and consumption, and effectively utilizing healthcare services to support the improvement of the child's nutrition. When all these aspects are correctly addressed, it can lead to better growth and development for the child.

A better maternal caregiving approach leads to a reduction in the number of children with stunting, whereas a poorer maternal caregiving approach may increase the prevalence of stunted children. A mother's caregiving approach significantly influences how she practices, behaves, or acts in caring for her child. This includes the mother's behavior in providing nutritional intake, maintaining hygiene for the child, ensuring environmental sanitation for the child, and how she utilizes healthcare facilities related to her child's needs [11].

Based on the findings of this research, it can be concluded that there is a significant relationship between a mother's caregiving approach and the occurrence of stunting in toddlers in the Glugur Darat Primary Health Center area. This could be attributed to the child's dependency on parents to fulfill all their living needs. Providing good attention reflects good caregiving practices, resulting in the child receiving adequate nutrition.

Table 5 The Influence of Healthcare Service Utilization on the Reduction of Stunting Incidence Among Toddlers in the Working Area of Glugur Darat Community Health Center, East Medan District, Medan City

Health Services Utilization	Reduction of Stunting Incidence				Total		*p*-Value
	Stunting (<-2SD)		Not Stunting (-2SD s/d 2SD)				
	f	%	f	%	f	%	
Less Good	48	48,5	8	8,1	56	56,6	**0,000**
Good	18	18,2	25	25,3	43	43,4	
Total	**66**	**66,7**	**33**	**33,3**	**99**	**100**	

Based on observations and Table 5, it is evident that mothers rarely bring their children for developmental check-ups, either at the health center or at integrated health posts (posyandu), which hinders proper monitoring of the child's development and may increase the risk of stunting. Healthcare services provide access to preventive measures and health maintenance, such as immunizations, child weighing, health and nutrition education, as well as reliable healthcare facilities

like integrated health posts, health centers, midwives, doctors, and hospitals. Utilizing healthcare services plays a significant role in improving the nutritional status of children, as mothers can obtain accurate health information through these services. Efforts to increase the utilization of healthcare services can be made through various means, such as attending nutrition and health education sessions and receiving counseling on child nutrition [12].

The habit of seeking healthcare services includes mothers' methods of accessing healthcare for their children by ensuring complete immunizations, seeking treatment for illnesses, and seeking assistance from healthcare professionals to maintain their children's health. This significantly contributes to improving the nutritional status of children, as mothers strive to utilize available healthcare services to acquire accurate health information. Efforts to increase the utilization of healthcare services involve enhancing health information for mothers through various activities, such as nutrition and health education sessions, as well as providing nutrition counseling for mothers with children facing nutrition-related issues.

Conclusions and Suggestions

Based on the research conducted, it can be concluded that there is an influence of food provision, personal hygiene, parenting style, and utilization of health services on the reduction of stunting incidence in toddlers in the Work Area of Glugur Darat Health Center, East Medan District, Medan City.

Further research can be conducted to explore the relationship between socioeconomic factors, such as family income and parental education level, with the incidence of stunting in toddlers in the Work Area of Glugur Darat Health Center, East Medan District, Medan City.

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