

## EXPERIENCE OF MOTHERS IN IMPLEMENTING MEAL PLANS TOWARDS THE INCIDENCE OF STUNTING IN TODDLERS AT BANGUNGALIH HEALTH CENTER

Adevia Maulidya Chikmah<sup>1)</sup>, Riska Arsita Harnawati<sup>2)</sup>, Meyliya Qudriani<sup>3)</sup>  
Email: depheeya@gmail.com<sup>1)</sup>, riskaarsita23@gmail.com<sup>2)</sup>, meyliya.qudriani@gmail.com<sup>3)</sup>  
<sup>1,2,3)</sup>Midwifery Diploma Program Politeknik Harapan Bersama 9th Mataram Street,  
Pesurungan Lor, Tegal

### Article Information

**Received:**

December 12, 2023

**Revised:**

May 28, 2024

**Accepted:**

June 14, 2024

### Abstract

Indonesia still has a fairly high stunting prevalence rate of 24.4% which is still above the standard tolerated by WHO, which is below 20%. Meanwhile, in Central Java, the stunting rate reached 20.9% and based on family data, 43.05% of families were at risk of stunting. In the Bangungalih Health Center area, there were 3,437 toddlers and 471 toddlers experiencing stunting. Every day toddlers need balanced nutrition such as carbohydrates, proteins, fats, vitamins and minerals, the nutritional intake is obtained from the food consumed by toddlers. According to the Minister of Health of the Republic of Indonesia No. 14 of 2014, food management or food management is a series of activities starting from menu planning, planning food needs, budgeting, procurement of food ingredients, distribution, recording, reporting and evaluation. The purpose of this study was to identify the experiences of mothers under five in implementing meal plans for stunting. The research method used was an analytical survey by analyzing the experiences of mothers under five in implementing meal plans on the risk of stunting in the Bangungalih Health Center area. The population is mothers who have toddlers, with the sampling technique that is accidental sampling. The number of respondents was 20 people. The results of the study show that there is a link between financial planning and menu planning with the incidence of stunting. Meanwhile, planning for food procurement and food processing is not related to stunting.

**Keywords:** Toddler Mother, Meal Plans, Stunting

@2024 PoliteknikHarapanBersama

### Correspondence:

Adevia Maulidya Chikmah, Midwifery Diploma Program Politeknik Harapan Bersama 9th Mataram Street, Pesurungan Lor, Tegal, depheeya@gmail.com

## 1. Introduction

Indonesia still grapples with a relatively high stunting prevalence rate of 24.4%, exceeding the WHO's acceptable standard of 20%. In Central Java, the stunting rate stands at 20.9%, with 43.05% of families identified as at risk of stunting based on collected data. Within the Bangungalih Health Center area, out of 3437 toddlers, 471 are classified as stunted [1].

Children require a balanced diet comprising carbohydrates, protein, fat, vitamins, and minerals daily for optimal growth and development. These essential nutrients are sourced from consumed food and play a vital role in ensuring children's complete health, encompassing physical, mental, and social well-being [2].

As per the Regulation of the Minister of Health of the Republic of

Indonesia No. 41 of 2014 on Hospital Nutrition Guidelines, food management involves a series of activities - from menu planning to food distribution - to achieve optimal nutritional status for consumers. These activities encompass menu planning, assessing food requirements, budgeting, procurement, distribution, and record-keeping, alongside reporting and evaluation.

Challenges often arise when preparing children's meals, including using ingredients lacking balanced nutrition, improper food processing leading to ingredient damage, and irregular eating patterns [3].

Maternal knowledge about nutrition directly influences family nutrition practices. A mother's awareness is key in selecting healthy foods over fast food, resulting in improved dietary habits. Education level and family income also impact maternal nutrition knowledge [4].

Furthermore, a mother's occupation affects nutritional practices, as time constraints often lead to indulging their children's preferences for fast food or instant noodles. The family's low socio-economic status also influences the quality of care, including meeting children's nutritional requirements [5].

## 2. Methods

The research methodology employed in this study consisted of an analytical survey using a case-control approach to investigate health phenomena and their associations with influencing factors. The study population was stratified into two groups: mothers with toddlers exhibiting average growth (n=20) and mothers with stunted toddlers (n=20). Accidental sampling was utilized to select respondents, wherein individuals who coincidentally encountered the researcher were included in the study [6].

Data collection was conducted by administering a structured questionnaire that elicited information on mothers' practices related to meal planning,

including financial management, food procurement, menu planning, and food processing. Additionally, toddler growth measurements, precisely height, and weight, were taken using appropriate instruments. Statistical analysis in this research involved the application of the chi-square test to assess the presence of any significant relationships between the variables under investigation.

## 3. Results and Discussion

### a. Characteristics

The variables examined in this study included maternal age, education, and family income:

**Table 1.** Characteristics of Respondents

Characteristics	Average		Stunted	
	f	%	f	%
Maternal Age				
Risk	5	12.5%	3	7.5%
Unrisk	15	37.5%	17	42.5%
Education				
Elementary school	2	5%	6	15%
Junior High School	8	20%	13	32.5%
High School	7	17.5%	1	2.5%
University	3	7.5%		
Income				
< Regional minimum wage	0	0%	18	45%
> Regional minimum wage	20	50%		

The findings revealed that a majority of the participants in the study were within the reproductive age range, constituting 32 respondents (80%). A notable proportion of mothers had attained education up to the high school level, with 20 respondents (50%) falling into this category. Additionally, the study highlighted that a significant number of participants reported income levels below the Regional Minimum Wage, encompassing 38 respondents (95%).

The data suggests that the maternal age factor poses a higher risk for toddlers with average growth compared to mothers of stunted toddlers.

This finding is consistent with Julian's research, which concludes that maternal age does not correlate with stunted toddlers. Instead, the influence stems from psychological factors [7].

Regarding education, most mothers are high school graduates, representing 20 respondents (50%); 17.5% were mothers of toddlers with average growth, and 32.5% were mothers of stunted toddlers. This contrasts with Rahayu's study, which highlights that parental education levels can impact stunting, as higher-educated mothers tend to adopt better parenting practices, particularly in choosing children's diets [8].

Regarding income, most respondents earned less than the Regional Minimum Wage, with 38 participants (95%); among them, 50% were mothers of toddlers with average growth, and 45% were mothers of stunted toddlers. Research by Khoirun and Nadiroh supports the notion that low economic status significantly affects children's physical development [9].

**b. Mother's Experience in Implementing Meal Plans**

The mother's experience implementing the Meals Plan discussed in this study encompasses financial planning, food procurement, menu planning, and food processing as per the research findings:

**Tabel 2.** Mother's Experience in Implementing Meal Plans

Meal Plans	Average		Stunted	
	F	%	F	%
<b>Financial Planning</b>				
Yes	17	42.5%	11	27.5%
No	3	7.5%	9	22.5%
<b>Food procurement</b>				
Appropriate	12	30%	10	25%
inappropriate	8	20%	10	25%
<b>Menu Planning</b>				
Yes	12	30%	8	20%
No	8	20%	12	30%

<b>Food processing</b>				
Appropriate	16	40%	11	27.5%
inappropriate	4	10%	9	22.5%

Table 2 reveals that 42.5% (17 respondents) of mothers with toddlers showing healthy growth prioritize financial planning, whereas only 27.5% (11 respondents) of mothers with stunted toddlers engage in financial planning.

Mothers adept at managing their finances are predominantly those with toddlers experiencing healthy growth. The Financial Services Authority (OJK) highlighted the importance of financial literacy among Indonesians for personal and household finances in 2017. Many homemakers need clarification towards the end or mid-month due to dwindling finances [10].

The research uncovers that some mothers' financial planning revolves around dividing income for essential expenses like groceries, education, and utility bills, with uncertain allocations. Notably, a significant portion of the financial plan is allocated to food expenses.

Approximately 30% (12 respondents) of mothers with thriving toddlers excel in planning food procurement, contrasted with 25% (10 respondents) of mothers with stunted toddlers. Food procurement is tailored to meet family nutritional needs while aligning with financial constraints and menu planning requirements.

The study delves into purchasing decisions, preferred vendors, and food quality assessment. At the same time, many respondents inspected food quality, and some needed help identifying specific ingredients. Results indicate that 30% of mothers with thriving toddlers engaged in menu planning (12 respondents) compared to 25% for those with stunted toddlers. Menu planning is crucial for a nutritionally balanced diet and aligning with nutritional guidelines to effectively cater to children's needs [11].

Mothers with thriving toddlers exhibited better food processing practices, with 40% (16 respondents) handling food appropriately compared to 27.5% (11 respondents) for mothers with stunted toddlers. Food processing encompasses maintaining hygiene, cooking methods, utensil usage, and proper ingredient storage, enhancing the safety and quality of prepared meals. While some mothers demonstrated good food processing practices, areas needing improvement were highlighted, such as neglecting proper utensil usage and inadequate food storage practices.

c. Mother's Experience in Implementing Meal Plans Towards the Incidence of Stunting

The presented data pertaining to the practices of mothers in implementing meal plans towards the risk of stunting among toddlers indicates compelling associations:

**Table 3.** Mother's Experience in Implementing Meal Plans Toward The Incidence of Stunting

Characteristics	Average		Stunted		Asym p. Sig
	F	%	F	%	
<b>Income Planning</b>					
Yes	1	42,5%	1	27,5%	0.038
No	7	7,5%	1	22,5%	
	3		9		
<b>Food procurement</b>					
Appropriate	1	30%	1	25%	0.525
Inappropriate	2	20%	1	25%	
	8		0		
<b>Menu Planning</b>					
Yes	1	30%	8	20%	0.025
No	2	20%	1	30%	
	8		2		
<b>Food processing</b>					
Appropriate	1	40%	1	27,5%	0.091
Inappropriate	6	10%	1	22,5%	
	4		9		

The analysis suggests a notable correlation between financial planning and the incidence of stunting and a significant relationship between menu planning and stunting occurrences. Conversely, the study identifies a distinct separation between meal procurement planning and food processing from the likelihood of stunting. Stunting, characterized by impaired linear growth in children resulting in below-average height, poses substantial threats to human well-being by potentially impeding physical and cognitive development and compromising educational outcomes [12].

Notably, individuals' income levels play a pivotal role in shaping their purchasing behaviors, with lower-income brackets often opting for more affordable, less diverse food choices and constrained menu varieties [13].

An inherent risk factor established in the study is the lack of food diversity, with toddlers consuming less varied diets exhibiting a 3.2-fold increased likelihood of experiencing stunting compared to those with diverse dietary intake patterns [14]. Furthermore, the meticulous approach to food processing, including proper storage techniques, assumes paramount importance in preserving food quality, forestalling nutrient deterioration, and mitigating the risk of bacterial contamination that could provoke infections [15].

**4. Conclusion**

Research findings suggest a connection between financial and menu planning and stunting rates. However, food procurement and processing planning do not impact stunting. Providing mothers with guidance on proper meal plan implementation is crucial for enhancing their knowledge and skills.

## 5. References

- [1] BAPPEDA KOTA TEGAL, Ekspos Data dan Analisis Situasi Stunting Kota Tegal Tahun 2022., Kota Tegal, 2022.
- [2] N. Novitasari, "Manajemen Pengelolaan Makanan Sehat dan Bergizi di PAUD plus Darussalam Bojonegoro," *Jurnal: Indonesian Journal of Early Childhood Islamic Education*, vol. 5, no. 02, 2021.
- [3] *Hubungan Pengetahuan Ibu Tentang Penyusunan Menu Balita Dengan Status Gizi Balita di Desa Kemiri. Skripsi: Universitas Negeri Yogyakarta.*, 2015.
- [4] A. O. F. F. Fasola O, "Knowledge, Attitude and Practice of Good Nutrition Among Women of Childbearing Age in Somolu Government, Lagos State," *J Public Health Africa*, vol. 9, 2018.
- [5] Z. e. Shaluhayah, "Pengetahuan, Sikap dan Praktik Ibu dalam Pemberian Makanan Sehat Keluarga di Kota Semarang," *Jurnal Gizi Indonesia*, vol. 8, no. 2, 2020.
- [6] Sugiyono, *Metode Penelitian Kuantitatif, kualitatif dan R&D*, Bandung: Alfabeta, 2013.
- [7] N. Y. D. & R. Julian, *Usia Ibu Saat Hamil dan Pemberian ASI Eksklusif Denagn Kejadian Stunting Balita*, 2018.
- [8] A. & L. Rahayu, "Resiko pendidikan ibu terhadap kejadian stunting pada anak 6 – 23 bulan," vol. 37, no. 2, 2014.
- [9] N. & N. S. R. Khoirun, "Faktor yang Berhubungan Dengan Kejadian Stunting pada Anak 6-23 bulan," vol. 37, no. 2, 2015.
- [10] OJK, *Strategi Nasional Literasi Keuangan Indonesia (Revisit 2017)*, SNLKI, 2017.
- [11] L. Eni, *Penyajian Makanan yang menarik sebagai intervensi asuhan keperawatan keluarga anak dengan ketidakseimbangan nutrisi: kurang dari kebutuhan di kelurahan Depok. KTI: Ners*, 2014.
- [12] Ariati, "Faktor-faktor penyebab terjadinya stunting pada balita usia 23 – 59 bulan," *Jurnal Oksitosis Kebidanan*, vol. VI, no. 1, 2019.
- [13] F. R. Ibrahim IA, "Hubungan Faktor Sosial Ekonomi Keluarga dengan Kejadian Stunting Anak Usia 24 - 59 Bulan di Wilayah Kerja Puskesmas Barombong Kota Makasar," *Al-Sihah: Public Health Science Journal*, vol. 6, no. 2, 2014.
- [14] S. Widyaningsih N.N & Kusnandar, "Keragaman pangan, pola asuh makan dan kejadian stunting pada balita usia 24 – 59 bulan," *Jurnal Gizi Indonesia* , vol. 7, no. 1, 2018.
- [15] e. Jane Ogden, *The impact of active or passive food preparation versus distraction on eating behavior*, Appetite, 2021.