

## Relationship Between Parental Patterns and Stunting Incidence in Toddlers Aged 12-24 Months in the Biloru Public Health Center Areas, South Buru District

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### Abstract

**Background:** Stunting is a chronic nutritional problem that affects a child's physical growth and cognitive development, and increases the risk of non-communicable diseases in adulthood. One of the influencing factors of stunting is parenting style. Buru Selatan Regency continues to record a high prevalence of stunting, especially in the working area of Biloru Health Center. **Objective:** This study aims to determine the relationship between parenting style and the incidence of stunting among children aged 12-24 months in the working area of the Biloru Health Center, Buru Selatan Regency. **Method:** This research employed a correlational analytic design with a cross-sectional approach. A total of 71 mothers with children aged 12-24 months were selected using a random sampling technique. Data were collected using a parenting style questionnaire and direct anthropometric observations of children's height-for-age (H/A) using the Z-score. Data were analyzed using the chi-square test with a significance level of 0.05. **Results:** Most respondents applied a democratic parenting style (69%), while 50.7% of children were found to be stunted. The analysis showed a significant relationship between parenting style and stunting incidence ( $p$ -value < 0.05). **Discussion:** Democratic parenting is beneficial, families with low economic status may struggle to provide a balanced, nutritious diet for their children. **Conclusion:** There is a significant relationship between parenting style and stunting in children. Inappropriate parenting practices may increase the risk of stunting. Educational interventions related to parenting and child nutrition are essential to reduce stunting cases.

**Keywords:** nutritional status, malnutrition, parental patterns, stunting, toddlers

### INTRODUCTION

Toddlerhood is an important period in the growth and development process, there is rapid increase so it is called the golden period in the life cycle [1]. Toddler growth and development require adequate and appropriate nutrition to prevent nutritional problems. Poor nutritional intake in the long term can lead to serious problems, including stunting [2].

According to the World Health Organization (WHO) [3], the prevalence of stunting in toddlers will become a public health problem if the prevalence is 22.3% or more in 2024 globally, with approximately 162 million toddlers affected by stunting. Prevalence data collected by the World Health Organization (WHO) lists Indonesia as the 3rd country with the highest prevalence in the Southeast Asia region. Based on the results of the Basic Health Research (Riskesdas) in 2024 [4], the prevalence of stunting at the national level was 6.4%

over a 5-year period. The target for stunting prevalence in toddlers in 2024 is 24.1%. However, the EPPGM (Electronic Community-Based Nutrition Recording and Reporting) from 354 provinces in Indonesia shows that 11.6% of toddlers whose nutritional status is measured based on height for age (TB\U) experience stunting [5].

Parenting styles are one of the factors that can influence stunting in toddlers [6]. Parents with poor or inadequate parenting styles have a greater risk of stunting in children than parents with good parenting styles [7]. Data from the 2023 Indonesian Health Survey (SKI) shows that the prevalence of stunting in Maluku Province increased by 2.3% from 26.1% in 2022 to 28.4%. In 2024, there were 435 cases of stunting in Ambon City, representing 2.34% [8]. Stunting data in Central Maluku shows a relatively high prevalence in 2021, reaching 29.4% [9]. This increased in 2023, with the prevalence reaching 29.8%. According to the Indonesian Nutrition Status Survey (SGI), the stunting rate in South Buru Regency in 2022 was 41.6%, and in 2023, the stunting rate in South Buru Regency decreased to 35.5% [10].

Stunting can be prevented by paying attention to nutritional intake in pregnant and breastfeeding mothers, conducting regular health checks, providing good parenting patterns, providing nutrition and providing nutrition education before, during and after pregnancy [11]. Within parenting itself, there are several types of parenting styles that parents use in their daily lives [12]. The model or type of parenting style parents use will ultimately impact their children's attitudes and behavior. There are three types of parenting styles: authoritarian, permissive, and democratic [13].

The results of the initial data collection on stunting at the Biloro Health Center in the last three years, where in 2022 the number of stunting was 102 toddlers, then in 2023 the number of stunting increased to 117 stunting sufferers, and officers have provided treatment by providing nutritious food to toddlers. In 2024, the number of stunting sufferers decreased by 91 stunting sufferers. Thus, the incidence of stunting in the last three years at the Biloro Community Health Center increased in 2022- 2023, and decreased in 2024. Based on the initial data obtained, I intend to conduct a study with the title "The Relationship Between Parenting Patterns and the Incidence of Stunting in Toddlers in the Biloro Community Health Center Work Area, South Buru Regency".

## **METHOD**

The research design used in this study was a correlative analytical study using a cross-sectional method [14]. The aim was to determine and analyze the relationship between parenting patterns and stunting in toddlers. To identify the relationship between two or more variables, a correlation was calculated between the variables being studied.

### **Selection and Screening**

This research was conducted in the Biloro Community Health Center Working Area on June 16-July 16, 2025, the population of this study were mothers who had toddlers aged 12-24 months in the Biloro Community Health Center Working Area, a total of 246 toddlers. The sample used in this study was 71 samples, the sampling technique in this study was simple

random sampling. The instrument used in this study was a closed-ended questionnaire, meaning all answers were provided, and respondents chose an answer by placing a check mark in the right-hand column of the statement. This questionnaire has been tested for validity and reliability, with a result of 0.838, thus being declared reliable.

### Data Extraction

Univariate analysis is used to explain or describe the characteristics of each research variable. It is presented in the form of distribution and presentation of the variables [15]. Frequency distribution research includes: respondent identity, age, number of respondents, and education. Bivariate analysis was performed on two suspected or correlated variables. In this study, bivariate analysis was conducted to determine the relationship between parenting patterns and the incidence of stunting in toddlers in the Biloru Community Health Center work area. This bivariate analysis was processed using SPSS type 23 [16]. The statistical test used to examine the parenting pattern and stunting variables to determine their relationship was the chi-square statistical test with  $\alpha = 0.05$ .

### RESULTS AND DISCUSSION

The univariate analysis in this study aims to provide an overview of the characteristics of the study respondents. The characteristics collected included respondent age, education, occupation, toddler age, toddler gender, stunting incidence, and parenting patterns.

The age characteristics of toddlers, the majority of Early Adulthood: 18-35 years (67.6%). The highest level of education for respondents is Middle School (36.6%). The majority of parents work as housewives. The average age of children is in the range of 19-24 Months (90.1%). The majority of parents use Democratic parenting styles (69.0%). Based on the incidence of stunting, the most experienced stunting (53.5%). The majority of parents use democratic parenting patterns (69.0%). Based on bivariate analysis using the Chi-Square test, a p-value of 0.489 was obtained. This indicates that there is no significant relationship between parenting patterns and the incidence of stunting in toddlers.

The Relationship Between Parenting Patterns and the Incidence of Stunting [15]. Based on bivariate analysis using the Chi-Square test, a p-value of 0.489 was obtained. This indicates that there is no significant relationship between parenting patterns and the incidence of stunting in toddlers ( $p < 0.05$ ). According to [8], parenting is an indirect cause practiced directly by caregivers, such as mothers, fathers, grandmothers, and other individuals, who provide food, maintain health, and provide the stimulation and emotional support that children need for growth and development [3]. Most primary caregivers are mothers, both among children with normal growth and those with stunting [17]. The husband is quite instrumental in replacing parenting if the mother is absent from a normal child, compared to a child stunting [9].

Parenting is used to help children grow and develop by caring for, guiding, and educating them so that they achieve independence. Parenting is an attitude and practice that involves feeding, stimulating, and providing affection to children so that they can grow and develop properly [18]. Khon defines parenting as the attitude parents have toward their children's

interactions [10]. The method parents use to educate and raise their children is called parenting [19]. Every parent has their own unique approach to parenting, such as how they interact with each other to educate, care for, and guide their children [20]. A child, especially one with special needs, requires good care in the form of nurturing and treatment from their parents. According to [11], some children with special needs cannot live independently and require additional care and attention, including supervision.

Table 1. Characteristic of respondents

Characteristics of Respondents	Frequency (n)	Percentage (%)
<b>Age</b>		
Early Adulthood: 18-35 Years	48	67,6
Middle Adulthood: 36-45 Years	19	26,8
Late Adulthood: 46-59 Years	4	5,6
<b>Education</b>		
Elementary School	17	23,9
Middle School	26	36,6
High School	21	29,6
Bachelor	7	9,9
<b>Work</b>		
IRT	51	71,8
PNS	8	11,3
Farmer	12	16,9
<b>Toddler Age</b>		
12-18 Months	7	9,9
19-24 Months	64	90,1
<b>Parenting Patterns</b>		
Democratic	51	69,0
Authoritarian	10	16,9
Permissive	10	14,1
<b>Stunting Events</b>		
Stunting	38	53,5
Not Stunting	33	46,5

This research aligns with research conducted [12], which found no significant relationship between parenting patterns and stunting in toddlers. This is due to other factors, such as knowledge and economic factors (income), which influence parenting patterns [21]. A family's economic status, which includes income and education levels, can influence the way parents interact with their children, including the parenting style they apply. For family parenting patterns, most were in the good category (58.5%). There was a relationship between maternal education and the incidence of stunting ( $p$ -value = 0.029) [13].

This research also aligns with research conducted [14], which stated that there is no relationship between maternal parenting patterns and the incidence of stunting in toddlers. This is caused by other factors, namely a lack of knowledge and information received by parents [23]. Lack of parental knowledge and information can negatively impact child

development, particularly in education, health, and character development [24]. Not all parents have access to accurate and reliable information about stunting. Incorrect or incomplete information can mislead parents and exacerbate the problem.

Researchers assume that democratic parenting, characterized by open communication and child participation in decision-making, can contribute to a reduction in stunting. However, if stunting remains high despite democratic parenting, this could be due to other dominant factors, including economic factors. Although democratic parenting is beneficial, families with low economic status may struggle to provide a balanced, nutritious diet for their children.

### CONCLUSION

There is no significant relationship between parenting patterns and the incidence of stunting in toddlers. The majority of parents use democratic parenting patterns.

### REFERENCES

- [1] Masrul M. Description of Parenting Patterns on Stunting and Normal Children in the Specific Area Stunting of Pasaman and West Pasaman District, West Sumatra. *Journal of Midwifery*. 2018; 3(2): 153-60.
- [2] Annisa, N. and Putri, S.E. The Relationship Between Parenting Patterns, Knowledge and Immunization with The Incidence of Stunting in Toddlers in The Work Area of Sanggiran Community Health Center, Simeulue Regency In 2024. *MEDALION JOURNAL: Medical Research, Nursing, Health and Midwife Participation*, 2025; 6(2): 109-116.
- [3] Kaloko I, Marniati M, Mulyani I. Study of the Relationship Between Parenting Patterns and Family Income with Stunting Incidence in Children Aged 2-5 Years. *Morfai Journal*. 2022; 2(1):181-8.
- [4] Sawitri AJ, Purwanto B, Irwanto I. Birth weight and birth length affecting stunting incident in toddler. *Indonesian Midwifery and Health Sciences Journal*. 2021; 5(3): 325-32.
- [5] Christiana, I., Nazmi, A.N. and Anisa, F.H. Hubungan pola asuh ibu dengan kejadian stunting pada balita di Desa Kertosari Wilayah Kerja Puskesmas Kertosari Banyuwangi: The Relationship of Mother's Parenting with Stunting Events In Toddlers At Kertosari Village Work Area Kertosari Health Center. *Jurnal Ilmiah Keperawatan (Scientific Journal of Nursing)*, 2022; 8(2): 397- 409.
- [6] Pratiwi RC. The Correlation Between Feeding Patterns and the Incidence of Stunting in Children Aged 0-59 Months. *Journal of Health Sciences*. 2022; 5(02) :126-31.
- [7] Pradana VN, Suparmi S, Ratnawati R. Personal Hygiene, Water Availability, and Environmental Sanitation with the Incidence of Stunting in Toddlers Aged 6--59 Months in the Working Area of the Singorojo I Public Health Center, Kendal Regency. *Amerta Nutrition*. 2023; 7(3).
- [8] Astuti AD. Parents' participation experiences in care of stunting children in the middle of the Covid-19 pandemic in Laha Village, District Ambon Bay Ambon City. *Jurnal eduhealth*. 2023;14(02): 533-9.

- [9] Nendissa RF, Purnomo D, Hadiwijoyo SS. Structural Analysis of Bappeda's Role in Stunting Convergence Actions in Maluku Province: Stunting in Maluku Province. *PERSPEKTIF*. 2024; 13(4): 947- 55.
- [10] Wael S, Rumerang D, Manuhutu Y. Determinants of Economic Growth in South Buru District. *Al-Kharaj: Journal of Islamic Economic and Business*. 2026; 8(1).
- [11] Vasconcelos IN, Brito IM, Arruda SP, Azevedo DV. Breastfeeding and infant feeding guidelines: dietary patterns and potential effects on the health and nutrition of children under two years. *Revista Brasileira de Saúde Materno Infantil*. 2021; 21(2): 419-28.
- [12] Khanum S, Mushtaq R, Kamal MD, Nishtar Z, Lodhi K. The influence of parenting styles on child development. *Journal of Policy Research*. 2023; 9(2): 808-16.
- [13] Zhussipbek G, Nagayeva Z. The need to bridge the gap between research on children's rights and parenting styles: Authoritative/democratic style as an acultural model for the child's well-being. *Social Sciences*. 2022; 12(1): 22.
- [14] Hamaker EL. The curious case of the cross-sectional correlation. *Multivariate Behavioral Research*. 2024; 59(6): 1111-22.
- [15] Denis DJ. Applied univariate, bivariate, and multivariate statistics: Understanding statistics for social and natural scientists, with applications in SPSS and R. John Wiley & Sons; 2021 Apr 13.
- [16] Sandilands D. Bivariate Analysis: In *Encyclopedia of quality of life and well-being research 2024* Feb 11 (pp. 481-483). Cham: Springer International Publishing.
- [17] [17] Skouteris H, Green R, Chung A, Bergmeier H, Amir LH, Baidwan SK, Chater AM, Chamberlain C, Emond R, Gibbons K, Gooley M. Nurturing children's development through healthy eating and active living: Time for policies to support effective interventions in the context of responsive emotional support and early learning. *Health & social care in the community*. 2022; 30(6): e6719-29.
- [18] Darwis D, Abdullah R, Amaliah L, Bohari B, Rahman N. Experience of mother in taking care of children with stunting at Majene regency, Indonesia. *Open Access Macedonian Journal of Medical Sciences*. 2021; 9(E): 33-8.
- [19] Rahimah R, Koto I. Implications of parenting patterns in the development of early childhood social attitudes. *International Journal Reglement & Society (IJRS)*. 2022; 3(2): 129-33.
- [20] Mansir F. Parenting of children through an Islamic education approach. *EDUKASI: Jurnal Pendidikan Islam (e-Journal)*. 2022;10(2): 259-71.
- [21] Goodall J, Montgomery C. Parental involvement to parental engagement: A continuum. *Mapping the field*. 2023: 158-69.
- [22] Toyibah RS, Purnama D, Nurhakim F, Rahayuwati L, Yani DI, Ramdhanie GG. Relationship between socio-economic with parent's knowledge of toddler feeding patterns. *Journal of Nursing Care*. 2023; 6(2).
- [23] Chawa AF, Fitriana T, Ambarsari ZA. The relationship between socio-economic and media literacy levels with the level of parent participation in preventing stunting in rural areas. *Sosiohumaniora*. 2024; 26(2): 315-29.