

## STUNTING RISK FACTOR ANALYSIS

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### ABSTRAK ANALISIS FAKTOR RISIKO STUNTING

Latar Belakang Prevalensi stunting di dunia pada anak di bawah usia 5 tahun adalah 21,3%. Hal ini menunjukkan bahwa secara global pada tahun 2019 sekitar 144 juta anak di bawah usia 5 tahun menderita stunting dengan sekitar dua pertiganya tinggal di kawasan Afrika dan Asia Tenggara (WHO, 2020).

Tujuan penelitian ini adalah menganalisis faktor risiko stunting di Kecamatan Dente Teladas Tulang Bawang Tahun 2022.

Metode Jenis penelitian ini adalah kuantitatif, dengan jumlah anak usia 0 – 59 bulan di Kecamatan Way Dente Tulang Bawang pada bulan April sebanyak 159 anak yang mengalami stunting. Teknik sampel yang digunakan adalah sampel sebanyak 159 responden.

Hasil Sebaran frekuensi stunting tertinggi pada kategori pendidikan tinggi 105 (66,0%), jumlah keluarga kecil 105 (67,9%), pola asuh positif 97 (61,0%), jenis kelamin perempuan 95 (40,3%), sanitasi lingkungan tidak sehat 92 (57,9%), tinggi badan ibu kurang 90 (56,6%), berat badan tidak berisiko 86 (54,4%), ibu bekerja 85 (53,5%), tidak ada riwayat penyakit menular 85 (53,5%), usia anak tidak berisiko 85 (55,3%), pendidikan dasar ibu 83 (52,2%) tingkat pengetahuan ibu kurang baik 82 (51,6%), pendidikan dasar ayah 78 (52,3%), tinggi badan ayah normal 69 (43,4%).

Kesimpulan Faktor risiko stunting adalah pendidikan tinggi, jumlah keluarga sedikit, pola asuh positif, jenis kelamin perempuan, sanitasi lingkungan yang tidak sehat, tinggi badan ibu yang kurang baik.

Saran dapat meningkatkan pengetahuan responden dalam merawat dan merawat anaknya agar terhindar dari masalah stunting

Kata kunci : Anak, Faktor karakteristik, Stunting

### ABSTRACT

Background The prevalence of stunting in the world in children under 5 years of age is 21.3%. This shows that globally in 2019 around 144 million children under 5 years of age suffer from stunting with around two-thirds of them living in Africa and the Southeast Asian region (WHO, 2020).

The purpose of this study was to analyze the risk factors for stunting in the District of Dente Teladas Tulang Bawang in 2022.

Methods This type of research is quantitative, with a number of children aged 0 – 59 months in Way Dente Tulang Bawang sub-district in April as many as 159 children who experienced stunting. The sample technique used is a total sample of 159 respondents.

Result Distribution the highest frequency of stunting was included in the higher education category 105 (66.0%), the number of small families 105 (67.9%), positive parenting 97 (61.0%), female gender 95 (40.3%), unhealthy environmental sanitation 92 (57.9%), maternal height is less 90 (56.6%), body weight is not at risk 86 (54.4%), working mothers 85 (53.5%), no history of infectious disease 85 (53.5%), the age of the child is not at risk 85 (55.3%), the mother's basic education is 83 (52.2%) the mother's knowledge level is not good 82 (51.6%), the father's basic education is 78 (52.3%), the father's height is normal 69 (43.4%).

Conclusion The risk factors for stunting are higher education, small number of families, positive parenting, female gender, unhealthy environmental sanitation, poor maternal height

Suggestions can increase knowledge of respondents in caring for and caring for their children to avoid stunting problems

Keywords : Children, Characteristic factors, Stunting

## INTRODUCTION

The prevalence of stunting in the world in children under 5 years of age is 21.3%. This shows that globally in 2019 around 144 million children under 5 years of age suffer from stunting with around two-thirds of them living in Africa and the Southeast Asian region (WHO, 2020). Recent data show that the Asian region experiences a burden of malnutrition in children under the age of 5 years with a stunting prevalence of 21.8%, higher than the global average of 21.3%. The Southeast Asian region has a stunting prevalence of 24.7%, making the region in Asia with the second highest prevalence of stunting after South Asia (Global Nutrition Report, 2020).

The Global Nutrition Report (2020) reports that the prevalence of stunting in children under the age of 5 years in Indonesia is still higher than the average for the Southeast Asian region despite progress in achieving the stunting reduction target. Indonesia is ranked fourth with a high prevalence of stunting in children under the age of 5 years in Southeast Asia after Timor Leste (51.7%), Laos (33.1%), and Cambodia (32.4%). According to Basic Health Research data, the prevalence of stunting from year to year in a row from 2007, 2010, 2013 and 2018 was 36.8%; 34.6%; 37.2%; and 30.8% (Kemenkes RI, 2018). Based on data from the integration between SSGBI 2019 and SUSENAS, it shows that the national prevalence of underweight, stunting, wasting is 7.4%, respectively; 27.7%; and 16.3%.

The high prevalence of stunting in children under five in Indonesia requires efforts to tackle and prevent stunting from an early age. The government in preparing the 2020-2024 RPJMN activities related to public health programs focuses on priority programs such as reducing maternal mortality, infant mortality, reducing the prevalence of stunting and wasting in children under five, which is then followed by supporting indicators (Kemenkes RI, 2020). This is in line with the target of achieving the Sustainable Development Goals (SDGs) in 2030, ending all forms of malnutrition, including achieving the 2025 international target for reducing stunting and wasting in children under five and addressing the nutritional needs of adolescent girls, pregnant and lactating women, and the elderly (Alisjahbana & Murniningtyas, 2018). Handling stunting is a challenge for Indonesia which is expected to face a demographic bonus in 2030 (Head of the Public Relations and Administration Bureau for the Ministry of National Development Planning/Bappenas, 2017). This statement shows that stunting concerns the productivity of a nation, so that success in reducing

the threat of stunting will invest in human resource development in the long term

The World Bank and the Indonesian Ministry of Health have observed that most pregnant women and children under the age of two in Indonesia do not have integrated access to basic services. Meanwhile, child growth and development is highly dependent on access to specific and sensitive nutrition interventions, especially during the first 1,000 days. Life. 1000 HPK consists of 280 days in the womb, a period of 0-6 months for 180 days and 540 days in a period of 6-24 months (Rahayu, Rahman, et al., 2018). Only 28.7% of children under two have access to four basic services simultaneously, generally including access to birth certificates, drinking water, sanitation, and exclusive breastfeeding (World Bank Group & Ministry of Health RI, 2017).

The period of the first 1,000 days is often called the window of opportunities or known as the golden period, based on the fact that during the fetal period until the child is two years old, a very rapid growth and development process occurs and does not occur in other age groups. Fulfillment of nutritional intake in 1,000 children's HPK is very important. If in that age range children get optimal nutritional intake, the decline in children's nutritional status can be prevented from the start (Rahayu, Rahman, et al., 2018). The first two years of life are the fastest period in neurodevelopment and cognitive function. This period is marked by accelerated growth and maturation of all organ systems and the formation of metabolic patterns (Helmyati et al., 2020). In order for the 1000 HPK to be passed properly, the intake of nutrition and nutrition must be appropriate, and good parenting. Unfulfilled nutrition and nutrition intake, as well as errors in parenting from the fetus to the age of two years will have a very bad and permanent impact on the growth and development of children in the future, so that it can interfere with the welfare of children in the future (BkkbN, 2017).

The World Health Organization (WHO) places Indonesia as the third country with the highest stunting prevalence rate in Asia in 2017. The figure reached 36.4 percent. However, in 2018, according to Basic Health Research (Riskesdas) data, the figure continued to decline to 23.6 percent. In 2018 the incidence of stunting was 30.8%, in 2019 it was 27.67% and in 2020 it was 26.92%. Indonesia is ranked fifth in the world for the number of children with stunting conditions. More than a third of children under the age of five in Indonesia are below the average height. According to the Indonesian Ministry of Health, 9.8% of toddlers have very short nutritional status and 19.8% of toddlers have short nutritional

status. The percentage of stunting/short (very short/shorter) in the under-five group (29.6%) was higher than the under-five group (20.6%).

Broadly speaking, the UNICEF Framework shows 3 groupings of stunting levels, namely community, household, and individual levels. The causal factors that occur at the community level are the economic system, education, health and sanitation and clean water. At the household level, the factors causing stunting are inadequate food quality and quantity, income level, number and structure of family members, inadequate basic health services, and inadequate sanitation and clean water. Factors that cause stunting at the household level will affect individual conditions, namely children under the age of 5 years related to unbalanced food intake, low birth weight (LBW), and poor health status (Trihono et al., 2015)

Based on the results of the 2021 SSGI, the national stunting rate decreased by 1.6 percent per year from 27.7 percent in 2019 to 24.4 percent in 2021. Most of the 34 provinces showed a decline compared to 2019 and only 5 provinces showed an increase. This shows that the implementation of government policies to accelerate the reduction of stunting in Indonesia has given good results.

Results of the Indonesian Nutritional Status Study (SSGI)2021 carried out by the Health Research and Development Agency of the Ministry of Health not only provides an overview of the nutritional status of children under five but can also be used as an instrument for monitoring and evaluating the achievement of specific intervention indicators and sensitive interventions both at the national and district/city levels that have been carried out since 2019 and until now. in 2024. Currently, stunting prevalence in Indonesia is better than Myanmar (35%), but still higher than Vietnam (23%), Malaysia (17%), Thailand (16%) and Singapore (4%).(Ministry of Health RI , 2021)

The average annual achievement of stunting reduction is 2.0% (2013-2021) with a stunting prevalence rate of 24.4% in 2021. Innovation efforts are needed to achieve 2.7% per year in order to achieve the 14% target (RPJMN target) with appropriate intervention (KemenkesRI, 2021)

In the context of achieving the national target of stunting prevalence as referred to in Article 4 paragraph (2), an intermediate target that must be achieved is set at 14% (fourteen percent) in 2024. The National Strategy for Accelerating Stunting Reduction as referred to in Article 2 is implemented to achieve the target sustainable development in 2030. The achievement of the target of sustainable development goals as referred to in paragraph (1) is

carried out through the achievement of the national target of stunting prevalence measured in children under 5 (five) years of age. (PerPresRI, 2021)

Many factors cause stunting, namely low socioeconomic problems, food insecurity, maternal nutritional status during pregnancy, low birth weight (LBW) babies, child care patterns, nutritional status, sanitation and water availability (Permatasari & Suprayitno, 2007). 2020) The government has actually tried to prevent and overcome the problem of stunting in children under five through various nutrition programs, both specific and sensitive, such as giving blood-added tablets to pregnant women, promoting exclusive breastfeeding, providing macro and micro nutritional supplements to providing non-food items. cash. However, the results have not been able to overcome the stunting problem. Indirect factors on the incidence of stunting such as socio-economic status of the family include family income, parental education, knowledge of maternal nutrition,

According to Nadiyah's research (2020) a pregnant woman will give birth to a healthy baby if the level of health and nutrition is in good condition. Previous research has shown that maternal height <150 cm is a risk factor for stunting in children aged 0-23 months with a prevalence of stunting in children under five from mothers who have a height <150 cm is 46.7%, while the group of mothers who have a height > 150 cm is 34.8% with a p value = 0.004.

According to Ainun's research (2019), it shows that maternal height is associated with stunting, which is indicated by a p value < 0.05 with a prevalence of 30.89% of stunted children having mothers with a height of < 150 cm while mothers with a height of > 150 cm have a prevalence of 13.61% stunting children. According to some of these studies, it can be assumed that mothers who have a height <150 cm have a greater chance of having stunting children than mothers with a height > 150 cm. The prevalence of stunting in the group of mothers who gave birth at the age of <19 years was 19.53%, 19-24 years old was 18.96, 25-34 years old was 17.74% and age > 35 years was 21.35%. Based on this study, it can be assumed that the age of 25-34 years in the mother is the best age to reduce the prevalence of stunting under five. This indicates that the age at birth and the age when having children are related to the occurrence of stunting. Parenting that includes aspects of feeding practices, food preparation and food sanitation also affects the incidence of stunting. This is due to feeding without paying attention to the frequency of feeding, nutritional quality, and inappropriate feeding methods will result in growth failure. This indicates that the age at birth and the age when having children

are related to the occurrence of stunting. Parenting that includes aspects of feeding practices, food preparation and food sanitation also affects the incidence of stunting. This is due to feeding without paying attention to the frequency of feeding, nutritional quality, and inappropriate feeding methods will result in growth failure. This indicates that the age at birth and the age when having children are related to the occurrence of stunting. Parenting that includes aspects of feeding practices, food preparation and food sanitation also affects the incidence of stunting. This is due to feeding without paying attention to the frequency of feeding, nutritional quality, and inappropriate feeding methods will result in growth failure.

Stunting is caused by multi-dimensional factors and not only due to malnutrition experienced by pregnant women and children under five. The most decisive intervention to reduce the prevalence of stunting therefore needs to be carried out in the first 1,000 days of life (HPK) of children under five. The first contributing factor is poor parenting practices, including the lack of knowledge of mothers about health and nutrition before and during pregnancy, as well as after the mother gives birth. The second cause is still limited health services, including ANC-Ante Natal Care (health services for mothers during pregnancy) Post Natal Care and quality early learning. The third cause is the lack of household/family access to nutritious food. This is because the price of nutritious food in Indonesia is still relatively expensive. While the fourth factor is the lack of access to clean water and sanitation. Data obtained in the field shows that 1 in 5 households in Indonesia still defecate in open spaces, and 1 in 3 households do not have access to clean drinking water (Risksedas, 2018).

The impact of stunting on health includes failure to grow (low birth weight, small, short, thin), cognitive and motor development barriers, metabolic disorders in adulthood, the risk of non-communicable diseases (diabetes, obesity, stroke, heart disease). While the economic impact is the potential economic loss every year: 2-3% of Gross Domestic Product (GDP) if Indonesia's Gross Domestic Product (GDP) is Rp. 13,000 Trillion, Potential Loss is Rp. 260-390 Trillion/year. Potential economic returns from investment in stunting reduction in Indonesia: 48 times (Risksedas, 2018).

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the Asian region experiences a burden of malnutrition in children under the age of 5 years with a stunting prevalence of 21.8%, higher than the global average of 21.3%. The Southeast Asian region has a stunting prevalence of 24.7%, making the region in Asia with the second highest prevalence of stunting after South Asia (Global Nutrition Report, 2020). According to the Ministry of Health of the Republic of Indonesia in 2019, the incidence of stunting in Lampung Province was (23%),

Meanwhile, based on data in Lampung Province, the prevalence of stunting under five (height according to age) was the highest in Tanggamus Regency at 25.0%, the second was Pesisir Barat Regency at 22.8%, the third was in West Lampung Regency at 22.7% while in Tulang Bawang Regency it was 9.5% (Ministry of Health, 2021).

Based on pre-survey data taken by researchers in February 2022, it is known that stunting data in Tulang Bawang Regency was found to be 127 cases at the Way Dente Public Health Center, 69 cases at the Pasiran Jaya Public Health Center and 70 cases at the Labuhan Dalem Public Health Center. Based on the above background, the researcher is interested in conducting research on "Risk Factor Situation Analysis". Stunting in the District of Dente Teladas Tulang Bawang in 2022"

## METHOD

Type The research used in this study is quantitative, namely the type of research that tries to find out why these health problems can occur. The time of this research was carried out from February 2022 to August 2022. This research was carried out in District of Dente Teladas Tulang Bawang. The population in this study were all children aged 0-59 months in Way Dente Tulang Bawang sub-district in April as many as 159 children who experienced stunting. The sample in this study were all children aged 0-56 months in Way Dente Tulang Bawang sub-district as many as 159 children. Intaking The sample in this study used the total sample method

## RESEARCH RESULT

### Overview of Research Place

Dente Teladas District is a district in Tulang Bawang District, Lampung, Indonesia. Dente Teladas sub-district with the capital city in Teladas village +76 km from the district capital, is a division of the Gedung Meneng sub-district which was ratified in Regional Regulation No. 1 of 2007, has an area of 67,848.32 hectares or 58% of the area of Tulang Bawang Regency.

In conducting research in the region District of Dente Teladas Initially, the author conducted an initial survey to find out or record how many mothers had children with stunting problems, after the survey was conducted it showed that there were 159 stunting incidents in children, after which interviews were conducted with respondents when respondents did routine posyandu or through other activities. In village activities, after the interview, the mother is encouraged to fill out a research questionnaire to get the desired results.

Way Dente Health Center is a health center located in Way Dente Street, Kec. Dente Teladas, Kab. Bone Onion, Lampung 34596. The management center of the Way Dente Health Center is under the Head of the UPT Puskesmas. The head of the administration section (TU) is directly under the head of the Puskesmas. The head of TU oversees several sub-sections of TU and service units. The types of services at the Way Dente Health Center include Medical Records, BPU, BPG, MCH and KB, ER, Immunization, TB programs, Malaria Programs, Communicable and Non-Communicable Diseases, ANC, home care, ANC, etc.

Pasiran Jaya Public Health Center is a health center located in Way Dente Tulang Bawang District. The management center of the Way Dente Health Center is under the Head of the UPT Puskesmas. The head of the administration section (TU) is directly under the head of the Puskesmas. The head of TU oversees several sub-sections of TU and service units. The types of services at Pasiran Jaya Health Center include Medical Records, BPU, BPG, MCH and KB, ER, Immunization, TB program, Malaria Program, Communicable and Non-Communicable Diseases, ANC, home care, ANC, etc.

Sungai Nibung Community Health Center is a health center located in Way Dente District Tulang Bawang. The management center of Sungai Nibung Public Health Center is under the Head of the UPT Puskesmas. The head of the administration section (TU) is directly under the head of the Puskesmas. The head of TU oversees several sub-sections of TU and service units. The types of services at Sungai Nibung Public Health Center include Medical Records, BPU, BPG, MCH and KB, ER, Immunization, TB programs, Malaria Programs, Infectious and Non-Communicable Diseases, ANC, home care, ANC, etc.

## Univariate Analysis

### Baby Factor

Frequency Distribution of Child Birth Weight History in the District of Dente Teladas Tulang Bawang.

**Table 1**  
To find out the frequency distribution of children's birth weight history in the District of Dente Teladas Tulang Bawang

History of Child's Birth Weight	Amount	Presentation (%)
Risky weight	73	45.9%
Weight is not at risk	86	54.1%

Based on table 1 above, it can be seen that the frequency of respondents is based on the frequency distribution of the history of the child's birth weight in the District of Dente Teladas Tulang Bawang with the highest weight category, namely the body weight that is not at risk as much as 86 (54.4%).

Frequency Distribution of Child Infectious Diseases in the District of Dente Teladas Tulang Bawang.

**Table 2**  
Frequency Distribution of Child Infectious Diseases in the District of Dente Teladas Tulang Bawang.

Infection History	Amount	Presentation (%)
There is a history of infection	74	46.5%
No history of infection	85	53.5%

Based on table 2 above, it can be seen that the frequency of respondents is based on the frequency distribution of a history of infectious diseases in children in the District of Dente Teladas Tulang Bawang with the most categories, namely no history of infectious disease as many as 85 (53.5%).

Frequency Distribution of Children's Gender in the District of Dente Teladas Tulang Bawang

Based on table 3 above, it can be seen that the frequency of respondents is based on the frequency distribution of the child's gender in the District of Dente Teladas Tulang Bawang 95 (40.3%) female category is the female category with the most stunting

**Table 3**  
Frequency Distribution of Children's Gender in the District of Dente Teladas Tulang Bawang.

Gender	Amount	Presentation (%)
Woman	95	59.7%
Man	64	40.3%

Frequency Distribution of Children's Agein the District of Dente Teladas Tulang Bawang.

**Table 4**  
**Frequency Distribution of Children's Agein the District of Dente Teladas Tulang Bawang**

Baby Age	Amount	Presentation (%)
Age at risk	71	44.7%
Age is not at risk	85	55.3%

Based on table 4 above, it can be seen that the frequency of respondents is based on the frequency distribution of children's agein the District of Dente Teladas Tulang Bawangwith the most children's age category being the age of children who are not at risk as much as 85 (55.3%).

**Parental Factor**

Mother's Knowledge Frequency DistributionIn the District of Dente Teladas Tulang Bawang.

**Table 5**  
**Mother's Knowledge Frequency Distributionin the District of Dente Teladas Tulang Bawang**

Mother's Knowledge	Amount	Presentation (%)
Lack of knowledge	82	51.6%
Good knowledge	77	48.4%

Based on table 5 above, it can be seen that the frequency of respondents is based on the mother's level of knowledgein the District of Dente Teladas Tulang Bawangwith the category of poor knowledge level of mothers as much as 82 (51.6%) is the category of the highest incidence of stunting

Frequency Distribution of Child Parentingin the District of Dente Teladas Tulang Bawang

Based on table 6 above, it can be seen that the frequency of respondents is based on parenting patterns for childrenin the District of Dente Teladas Tulang Bawangwith the category of positive parenting as many as 97 (61.0%) is the category of the highest incidence of stunting

**Table 6**  
**Frequency Distribution of Child Parentingin the District of Dente Teladas Tulang Bawang**

Parenting	Amount	Presentation (%)
Positive parenting	97	61.0%
Negative parenting	62	39.0%

Father's Height Frequency Distributionin the District of Dente Teladas Tulang Bawang.

**Table 7**  
**Father's Height Frequency Distributionin the District of Dente Teladas Tulang Bawang**

Father's Height	Amount	Presentation (%)
Less height	90	56.6%
Normal height	69	43.4%

Based on table 7 above, it can be seen that the frequency of respondents is based on father's heightin the District of Dente Teladas Tulang Bawangwith the category of normal father height as much as 69 (43.4%) is the category of the highest incidence of stunting

Mother's Body Height Frequency DistributionIn the District of Dente Teladas Tulang Bawang

**Table 8**  
**Mother's Body Height Frequency Distributionin the District of Dente Teladas Tulang Bawang**

Mother's height	Amount	Presentation (%)
Less height	90	56.6
Normal height	69	43.4

Based on table 4.8 above, it can be seen that the frequency of respondents is based on the mother's heightin the District of Dente Teladas Tulang Bawangwith the category of low maternal height as much as 90 (56.6%) is the category of the highest incidence of stunting

Distribution of Father's Education FrequencyIn Dente Teladas Kecamatan District

Based on table 9 above, it can be seen that the frequency of respondents is based on the father's educational backgroundin the District of Dente Teladas Tulang Bawangwith the category of basic education as much as 83 (52.2%) is the category of the highest incidence of stunting

**Table 9**  
**Distribution of Father's Education Frequency in the District of Dente Teladas Tulang Bawang**

Father's education	Amount	Presentation (%)
Basic education	83	52.2%
Secondary and higher education	79	47.8%

Distribution of Mother's Education Frequency in Dente Teladas Kecamatan District

**Table 10**  
**Distribution of Father's Education Frequency in the District of Dente Teladas Tulang Bawang**

Father's education	Amount	Presentation (%)
Basic education	83	52.2%
Secondary and higher education	76	47.8%

Based on table 10 above, it can be seen that the frequency of respondents is based on the mother's educational background in the District of Dente Teladas Tulang Bawang with the category of basic education as much as 78 (52.3%) is the category of the highest incidence of stunting

Mother's Occupational Frequency Distribution in Dente Teladas Kecamatan District

**Table 11**  
**Mother's Occupational Frequency Distribution in the District of Dente Teladas Tulang Bawang**

Mother's Job	Amount	Presentation (%)
Working	85	53.5%
Doesn't work	74	46.5%

Based on table 11 above, it can be seen that the frequency of respondents is based on the mother's work background in the District of Dente Teladas Tulang Bawang with the category of working mothers as many as 85 (53.5%) which is the category of the most stunting incidence

Frequency Distribution of Family Income in Dente Teladas Kecamatan District

Based on table 12 above, it can be seen that the frequency of respondents based on family income background in the District of Dente Teladas Tulang Bawang with the category of higher education

category as much as 105 (66.0%) is the category of the highest incidence of stunting

**Table 12**  
**Frequency Distribution of Family Income in the District of Dente Teladas Tulang Bawang**

Income	Amount	Presentation (%)
Low income	54	34.0%
High income	105	66.0%

Frequency Distribution of Number of Families in Dente Teladas Kecamatan District

**Table 13**  
**Frequency Distribution Number of families in the District of Dente Teladas Tulang Bawang**

Number of family	Amount	Presentation (%)
Number of large families	51	32.1%
Small family size	108	67.9%

Based on table 13 above, it can be seen that the frequency of respondents is based on the background of the number of families living in one house in the District of Dente Teladas Tulang Bawang with the category of the number of small families as much as 105 (67.9%) is the category of the highest incidence of stunting

Environmental Sanitation Frequency Distribution in Dente Teladas Kecamatan District

**Table 14**  
**Environmental Sanitation Frequency Distribution in the District of Dente Teladas Tulang Bawang**

Environment sanitation	Amount	Presentation (%)
Not healthy	92	57.9%
Healthy	67	42.1%

Based on table 14 above, it can be seen that the frequency of respondents is based on the state of environmental sanitation in the District of Dente Teladas Tulang Bawang with the category of unhealthy environmental sanitation as much as 92 (57.9%) is the category of the highest incidence of stunting.

## DISCUSSION

The distribution of the highest frequency of stunting is included in the higher education category of 105 (66.0%). In this study, the incidence of stunting occurred in the most categories with high parental educational background because there were several other causes that were not examined, such as how parents responded to the incidence of stunting themselves who still did not understand even though the mother's education was high.

The distribution of stunting in the category of the largest number of families occurred in the category of the number of small families 105 (67.9%). The incidence of stunting in small families usually does not understand and understand how to take good care of their children, most parents assume that their children are lacking in growth only from the age factor, not from problems with their health.

The distribution of the category of stunting in the parenting pattern was the most in the category of positive parenting 97 (61.0%). In a positive parenting pattern, there are still many children with stunting, this can be caused by knowledge factors that influence caring for their children and parents do not understand what diseases can cause children to experience less growth and development of their children well and most of the parents only rely on instinct or instinct. basic knowledge they encounter around the neighborhood.

The distribution of the sex frequency of children with the highest number of stunting problems is female 95 (40.3%). In this study, the highest incidence of stunting occurred in women according to the results of interviews conducted with several mothers. The incidence of stunting in girls was caused because mothers did not pay attention to how their children were developing and most mothers did not provide nutritional food consumption with the assumption that children did not want to eat healthy foods. It is important that the child wants to drink milk so that the child's growth is less than optimal.

The distribution of the frequency of stunting in the environmental sanitation category was highest in the unhealthy environmental sanitation category 92 (57.9%). Unhealthy sanitation can cause stunting because bacteria will more easily enter the child's body and children will get sick more easily and experience other infections so that in maintaining the living environment it must be considered how clean it is so that the quality of family health will be guaranteed, especially for infants and toddlers.

The frequency distribution of the height category that experienced the highest incidence of stunting occurred in the mother's height of less than

90 (56.6%). The mother's height is less will affect the incidence of stunting because of heredity factors that affect the growth of her child so that if the mother is underweight then the child will also experience problems in growth because during pregnancy the fetus has problems also in its growth in the stomach.

The distribution of the frequency of the weight category with the highest incidence of stunting is 86 (54.4%). Incidence of stunting can occur in the category of weight at risk or not at risk but will be more likely to occur in the history of mothers with a weight that is at risk because it will be more difficult for mothers to absorb nutrients during pregnancy and cause children to be born with low birth weight as well. .

The frequency distribution for the category of working mothers with stunting children was highest for working mothers as many as 85 (53.5%). The problem of stunting in working mothers can be caused because the mother will spend more time outside the house than inside the house or in taking care of and caring for her child, therefore the child's growth is less because the mother is busy working often occurs because in providing food or taking care of the child is usually delegated to husbands or grandmothers where they still do not understand how to take good care of children.

The distribution of the frequency of a history of infectious diseases in children who experienced stunting was the most, namely there was no history of infectious diseases 85 (53.5%). The history of infectious diseases in children can affect how children grow and develop in the future because they will easily get sick such as diarrhea, fever and steam which can cause children to experience weight growth, lack of body weight, a weak immune system which causes nutrients to enter the body. the child's body will also experience interference.

The frequency distribution of the age category of children who experienced the most stunting was the age of children who were not at risk of 85 (55.3%). The age of a child at risk can be defined as a child who is vulnerable or a child who is not old enough with low weight and height so that the child will be sick more easily.

Distribution of the frequency of education of fathers with children experiencing stunting basic education category 83 (52.2%). The father's lack of education will also affect knowledge so that the father will not pay attention to how his child is growing

The frequency distribution of maternal knowledge level with the highest incidence of stunting occurred in the category of poor maternal knowledge level 82 (51.6%). Poor knowledge will affect how mothers care for and provide proper care



to their babies because mothers only care for their children according to what they know or experience in their daily lives. With good knowledge, mothers will seek more information about how to provide good nutrition, how to provide exclusive breastfeeding to their babies and all information about disease problems that may occur, especially in children with stunting.

The most maternal education category with stunting children occurred in the basic education category 78 (52.3%). Mother's education can be the background of how the mother's level of knowledge is, therefore if the mother's education is good then the mother will have good knowledge and vice versa if the mother has low education then the mother's knowledge is also still lacking.

The frequency distribution of the father's height category with the highest incidence of stunting in the normal father's height category was 69 (43.4%). In this case the father's height sometimes affects the growth of his child, but if the child's height is less but in providing nutrition and good parenting there will be no stunting problem.

Many factors cause stunting, namely low socioeconomic problems, food insecurity, maternal nutritional status during pregnancy, low birth weight (LBW) babies, child care patterns, nutritional status, sanitation and water availability (Permatasari & Suprayitno, 2007). 2020) The government has actually tried to prevent and overcome the problem of stunting in children under five through various nutrition programs, both specific and sensitive, such as the provision of blood-added tablets for pregnant women, promotion of exclusive breastfeeding, provision of macro and micro nutritional supplements to the provision of non-food aids. cash. However, the results have not been able to overcome the stunting problem. Indirect factors on the incidence of stunting such as socio-economic status of the family include family income, parental education, knowledge of maternal nutrition,

Birth weight is the baby's weight measured in 1 hour when the baby was born. Babies can be grouped based on their birth weight, namely low birth weight (< 2500 grams), moderate birth weight (> 2500 grams) and baby weight over (> 4000 grams). Low birth weight indicates that the fetus is malnourished in the womb, while underweight indicates an acute malnutrition condition. Stunting itself is mainly caused by prolonged malnutrition. Babies born with less than normal weight (< 2500 grams) may still have a normal body length at birth. Stunting will occur only a few months later, although this is often not realized by parents. Parents only find out that their children are generally stunted after

hanging out with their friends so that their children look shorter than their friends. Therefore, children who are born with less weight or children from birth whose weight is below normal must be wary of becoming stunted (Candra, 2020)

The health status of children under five includes the incidence of diarrhea and acute respiratory infections (ARI) in toddlers. Diarrhea is defecation with an increasing frequency and the consistency of the stool is softer and watery which lasts for at least 2 days and the frequency is 3 times a day. The main cause of diarrhea in infants and children is enteropathogenic *Escherichia coli* (EPEC). According to Levine and Edelman, EPEC bacteria are also believed to be the cause of death of hundreds of thousands of children in developing countries every year. This is also expressed by Budiarti, that in Indonesia 53% of infants and children with diarrhea infected with EPEC. Therefore, diarrheal disease is one of the main health problems in many developing countries, including Indonesia.

Knowledge is facts, truths or information obtained through experience or learning. Parental knowledge about nutrition helps improve nutrition in children reaching growth maturity. Mother's knowledge also determines the ability of the family to apply the application of knowledge, resources and behavior patterns to promote health status and overcome environmental problems. In stunting children, the level of knowledge of mothers who are not good at risk is 3 times greater than knowledge of good mothers. (Erna Kusumawati, 2015)

Parents' own height is influenced by many factors, namely internal factors (genetic) and external factors (disease, nutritional intake from an early age). Genetic factors are changed while external factors are factors that can be changed. This means that the father is short because the genes on the chromosomes carry short traits and these genes are passed on to offspring difficult to overcome. But if the father is short due to illness and lack of nutrition from an early age, it should not affect his child's body. Children can still have a normal body if they are not exposed to stunting risk factors. (Candra, 2020).

According to WHO, environmental sanitation is an effort to control all factors of the human physical environment that may cause or may cause things that are detrimental to physical development, health and human survival. Environmental hygiene and health factors affect the incidence of stunting. Demonstrating a lack of adequate sanitation, and inadequate disposal of waste, clean water facilities, latrines, waste disposal are associated with an increased risk of child stunting. (Candra, 2020)

Environment can relate with stunting, this is

related to the incidence of infection if the living environment is not healthy it will increase the risk of infectious diseases such as diarrhea. Diarrhea can interfere with the absorption of nutrients in a child, so that it can inhibit the child's growth. This environmental health condition can be seen from hygiene and sanitation such as access to healthy latrines, application of hand washing with soap (CTPS), household waste and waste management, access to clean water sources and drinking water management (Bickel Gary, 2002).

In line with the research conducted by Sari Ratnawati, 2018 regarding the Relationship of Mother's Knowledge of Feeding Patterns with the Nutritional Status of Toddlers in the Work Area of the Gapura Health Center, Sumenep Regency. Results: The results of the study stated that there was a relationship between knowledge of feeding patterns and the nutritional status of toddlers ( $p < 0, 05$ ). Conclusion: The advice given is to increase mother's knowledge about feeding patterns to toddlers through counseling conducted by health workers at posyandu.

According to Ainun's research (2019), it shows that maternal height is associated with stunting, which is indicated by a  $p$  value  $< 0.05$  with a prevalence of 30.89% of stunted children having mothers with a height of  $< 150$  cm while mothers with a height of  $> 150$  cm have a prevalence of 13.61% stunting children. According to some of these studies, it can be assumed that mothers who have a height  $< 150$  cm have a greater chance of having stunting children than mothers with a height  $> 150$  cm. The prevalence of stunting in the group of mothers who gave birth at the age of  $< 19$  years was 19.53%, 19-24 years old was 18.96, 25-34 years old was 17.74% and age  $> 35$  years was 21.35%. Based on this study, it can be assumed that the age of 25-34 years in the mother is the best age to reduce the prevalence of stunting under five. Based on previous research, it was stated that parenting was significantly related to the incidence of stunting with a  $p$  value of 0.026.

In line with research conducted by Padmiari, 2018 on the Description of nutritional status and the incidence of stunting children in early childhood education programs in Bali-Indonesia Result: This research showed that 35.85% sample were underweight, 60.38% well nourished, and 3.77% overweight. The data after Height/ Age measurement has shown that 9.43% sample were short, 73.58% normal, and 16.98% tall

According to researchers, the history of baby weight can affect the growth rate of babies in the future, one of which is the stunting problem that can

be caused by the weight of the newborn. Individually, LBW is an important predictor of the health and survival of newborns and is associated with a high risk for the child. According to researchers, infections that occur in toddlers or children are caused by several factors, including a history of infections that have occurred in infants. Infections that occur can be due to factors from the mother or factors from the environment where you live. Infections in infants can affect the development of the baby's brain so that the baby will get sick easily and will have problems with the baby's growth.

According to researchers, the prevalence of stunting in boys is greater than the incidence of stunting in girls. This may be due to the fact that boys are generally more active than girls. Toddlers are generally more active outside the house, such as running, so they are more likely to come into contact with a dirty environment and spend more energy while energy intake is limited. According to researchers, the age of the child is a factor that causes stunting because if the child's age has grown but is underweight, it will experience problems in child development.

Based on the results of research that has been carried out, it shows that the highest incidence of stunting occurs in the female sex 95 (40.3%) and the baby's weight at risk of 86 (54.4%). This happens because women experience growth problems longer than men so that the absorption of nutrients in the body decreases, and at the age at risk of experiencing stunting because children have an age that is still said to be young but in growth is less than the age it should be. According to researchers, the problem of stunting in children can be overcome by always providing the daily nutrition and nutrition needed for growth so that children will experience weight gain more quickly and children will avoid stunting problems.

The results of the research conducted showed that the highest incidence of stunting occurred because of the high maternal education factor of 105 respondents. This was due to the mother's education, although it was high, but the mother did not want to develop her knowledge, meaning that she only relied on the events that were in front of her eyes. Educational background will affect the knowledge possessed by the mother because if the mother has good knowledge then the incidence of stunting in children can be avoided because with good knowledge mothers will always seek information about care for their children, especially if children with LBW are reluctant to seek information about mothers do not know how to take care of their children properly and correctly. For

mothers who have low or less knowledge, mothers only take actions according to their experiences. In this study, the level of knowledge possessed by the mother was still relatively low with a total of 82 respondents. It can be seen that despite higher education, the knowledge possessed by the mother is still lacking, this is due to the mother's lack of access to information about the incidence of stunting.

The incidence of stunting is also more common in the category of small families as many as 105 respondents and in positive parenting patterns as many as 97 respondents. These results indicate that although in the family applying a good parenting pattern and with a small family capacity it is possible to avoid stunting problems, this is because there are several causative factors that we did not examine, such as the ability of the family to provide balanced intake to their babies. or the existence of cultural factors that require the child to give up breast milk before 6 months.

The category of unhealthy environmental sanitation is 92, the category of maternal height is less than 90. This is because there is a history of descent from the father or mother in the incidence of stunting. If the environmental sanitation is not good then the child will be more attacked by diseases such as diarrhea so that the absorption of nutrients will decrease.

The problem of stunting can be overcome with the participation of health workers who collaborate with the surrounding community and the care of parents who have children with stunting, therefore it is recommended to continue to carry out routine checks, provide food that is high in nutrition, accuracy in immunization and keep children healthy. healthy and free from infectious diseases. If the stunting problem is not handled properly, it will lead to serious problems for children and the village itself.

## CONCLUSION

Distribution the highest frequency of stunting was included in the higher education category 105 (66.0%), the number of small families 105 (67.9%), positive parenting 97 (61.0%), female gender 95 (40.3%), unhealthy environmental sanitation 92 (57.9%), maternal height is less 90 (56.6%), body weight is not at risk 86 (54.4%), working mothers 85 (53.5%), no history of infectious disease 85 (53.5%), the age of the child is not at risk 85 (55.3%), the mother's basic education is 83 (52.2%) the mother's knowledge level is not good 82 (51.6%), the father's basic education is 78 (52.3%), the father's height is normal 69 (43.4%),

## SUGGESTION

This research is expected to become knowledge or can increase understanding of the problem of stunting in children. With this research, it is hoped that parents will be able to pay more attention to the nutritional intake given to their children and always check their children with health workers at least once a month to determine the child's development. If you experience a lack of knowledge, it is recommended to ask health workers or seek information about stunting on social media

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