JKM (Jurnal Kebidanan Malahayati), Vol 11, No. 9. September 2025,
ISSN (Print) 2476-8944 ISSN (Online) 2579-762X, Hal 849-864

ANALYSIS OF FACTORS AFFECTING STUNTING IN TODDLERS

Muhamad Iskhak[1], Sulis Diana[2], Dhonna Anggreni[3], Fitria Edni Wari[4]

[1,2,3] Magister of Public Health Study Program, Majapahit Health College, Mojokerto
[4] Bachelor of Midwifery Study Program, Majapahit Health College, Mojokerto
Email correspondence: diana.sulis6@gmail.com

ABSTRAK : ANALISIS FAKTOR YANG MEMPENGARUHI STUNTING PADA BALITA

Latar Belakang: Stunting pada balita memerlukan perhatian khusus karena menghambat perkembangan fisik dan mental anak, yang secara tidak langsung terkait dengan risiko penyakit dan kematian.

Tujuan: Tujuan penelitian ini adalah menganalisis faktor-faktor yang mempengaruhi insidensi stunting pada balita di wilayah kerja Puskesmas Klenang, Kabupaten Probolinggo.

Metode: Studi ini menggunakan desain kasus-kontrol kuantitatif. Variabel independen meliputi faktor individu (Berat Badan Lahir Rendah (BBLR), riwayat ASI eksklusif, penyakit menular pada balita, status imunisasi), faktor ibu (status gizi ibu, usia ibu saat hamil, paritas, jarak kelahiran), dan faktor lingkungan (sumber air bersih, akses ke toilet). Variabel dependen dalam penelitian ini adalah insidensi stunting. Populasi penelitian meliputi 359 ibu dan balita di wilayah kerja Puskesmas Cakar, Kecamatan Banyuanyar, Kabupaten Probolinggo. Pengambilan sampel dilakukan dengan metode *proportional random sampling*, menggunakan kuesioner sebagai instrumen. Analisis menggunakan uji regresi logistik.

Hasil: Sebagian besar balita dengan Berat Badan Lahir Rendah (BBLR) mengalami stunting, 44 (52,4%). 71 (84,5%) di antaranya diberikan ASI eksklusif. 83 (98,8%) balita stunting tidak menderita penyakit menular. 73 (86,9%) balita stunting telah mendapatkan imunisasi lengkap. Berat Badan Lahir Rendah (BBLR) (nilai P 0,000 < 0,05), pemberian ASI eksklusif (nilai P 0,017 < 0,05), dan status imunisasi (nilai P 0,046 < 0,05) secara signifikan mempengaruhi stunting. Status penyakit menular (P-value 0,556 < 0,05) tidak mempengaruhi stunting.

Kesimpulan: Berat Badan Lahir Rendah (BBLR) merupakan faktor dominan yang mempengaruhi stunting akibat asupan nutrisi yang tidak memadai selama kehamilan dan riwayat berat badan lahir rendah.

Saran: Tenaga kesehatan harus meningkatkan pendidikan dan konseling bagi ibu hamil, ibu balita, dan calon orang tua tentang stunting, gizi, pengasuhan anak, dan pencegahan penyakit menular, melalui posyandu terpadu, kader kesehatan, dan media digital.

Kata kunci: Faktor ibu, faktor individu, faktor lingkungan, stunting

ABSTRACT

Background: Toddler stunting requires special attention because it inhibits the physical and mental development of children which will indirectly be related to the risk of illness and death.

Objective: The purpose of the study: to analyze the factors that influence the incidence of stunting in toddlers in the working area of the Klenang Health Center, Probolinggo Regency.

Method: This study used a quantitative case-control design. The independent variables were individual factors (LBW, history of exclusive breastfeeding, toddler infectious diseases, immunization status), maternal factors (maternal nutritional status, maternal age during pregnancy, parity, birth spacing), and environmental factors (source of clean water, access to toilets). The dependent variable in this study was the incidence of stunting. The population was all 359 mothers and toddlers in the Cakar Community Health Center work area, Banyuanyar District, Probolinggo Regency. Proportional random sampling was used, with a questionnaire as the instrument. Analysis used a logistic regression test.

Results: The majority of toddlers with LBW experienced stunting, 44 (52.4%). 71 (84.5%) were exclusively breastfed. 83 (98.8%) of the stunted toddlers did not have infectious diseases. 73 (86.9%) of the stunted toddlers had complete immunizations. Low birth weight (LBW) (P-value 0.000 < 0.05), exclusive breastfeeding (P-value 0.017 < 0.05), and immunization status (P-value 0.046 < 0.05) significantly affected stunting. Infectious disease status (P-value 0.556 < 0.05) did not influence stunting.

Conclusion: Low birth weight (LBW) is the most dominant factor influencing stunting due to inadequate nutritional intake during pregnancy and a history of low birth weight.

Suggestion: Health workers should increase education and counseling for pregnant women, mothers of toddlers, and expectant parents about stunting, nutrition, parenting, and infectious disease prevention, through integrated health posts (Posyandu), health cadres, and digital media.

Keywords: Environmental factors, individual factors, maternal factors, stunting

INTRODUCTION

Malnutrition is a phenomenon inherent in nutritional problems experienced by a group of toddlers. According to Kartikawati, 2011 (in Indrahwati, 2017), stunting is a chronic nutritional deficiency in toddlers that causes their height to be below average for their age. Stunting in infants requires special attention because it can hinder the physical and mental development of children, which indirectly increases the risk of illness and death.

The prevalence of stunting in Indonesia in 2022 was recorded at 21.6%, a decrease from 24.4% in 2021. This decline shows progress in the government's efforts to address malnutrition among children, although the result is still below the annual target of 3.4%. In 2023, the prevalence of stunting in Indonesia was recorded at 21.5%, only a slight decrease from 21.6% in the previous year. The Indonesian government has set a target to reduce the prevalence of stunting to 14% by 2024. To achieve this target, an average reduction of 3.8% per year is required until 2024. The prevalence of stunting in East Java in 2022 was recorded at 19.2%, according to the Indonesian Nutrition Status Survey (SSGI) conducted by the Ministry of Health. This figure represents a significant decrease from 23.5% in 2021, with the 2023 prevalence rate at 17.7%, which is a decrease from 19.2% in 2022. By 2024, the average stunting prevalence is projected to be 13%, aligning with the national target of 14% (Profil Dinkes Jatim).

Probolinggo Regency In 2022, the stunting rate was recorded at 17.3%. This figure represents a significant decrease compared to the previous year, which was 23.3% in 2021. By 2023, the rate reached 35.4% according to the results of the 2023 Indonesia Health Survey (SKI). Latest data for 2024: 16,030 infants were measured, 1,457 infants had low birth weight, and 2,901 infants were malnourished. (Profil Dinkes Probolinggo, 2024).

Breastfeeding for less than 6 months and introducing complementary foods too early can cause various problems, such as babies being more susceptible to infectious diseases in their digestive tract because their digestive tract is not yet fully developed, thereby increasing the risk of stunting. Therefore, exclusive breastfeeding is very important for the growth, development, and health of babies (Kemenkes 2019). Early and exclusive breastfeeding is vital for a child's survival and to protect them from various diseases they are susceptible to, which can be life-threatening, such as diarrhea and pneumonia. Increasing evidence shows that children who receive breast milk have higher intelligence test scores. Additionally, they are less likely to develop obesity or overweight issues, as well as a reduced risk of developing diabetes later in life (Unicef, 2022).

Optimal breastfeeding practices are key to reducing stunting in children under five years of age, in order to achieve global and national targets to reduce stunting by 40 percent. Early initiation of breastfeeding and exclusive breastfeeding for six months provide protection against gastrointestinal infections and the necessary nutrients to prevent stunting (Paraneetharan, 2022). Research results (Purnamasari & Rahmawati, 2021) indicate that exclusive breastfeeding has a significant association with stunting incidence among children aged 24–59 months, with those receiving exclusive breastfeeding having a reduced risk of stunting.

Many studies have proven that maternal and child factors play an important role in the occurrence of stunting. These factors include parental education, maternal age during pregnancy, socioeconomic conditions, nutritional status of pregnant women, infectious diseases during pregnancy, and other factors during the prenatal period. Birth weight, prematurity, exclusive breastfeeding, infectious diseases during infancy, and other factors at birth are also associated with stunting. Research on health factors includes the study by (Kalsum & Islakhiyah, 2022) on maternal pre-pregnancy nutritional status as the dominant factor in stunting among toddlers (24–59 months) in Kerinci District, which found that factors associated with stunting include gestational age, exclusive breastfeeding, maternal occupation, maternal knowledge, maternal pre-pregnancy nutritional status, and maternal height. Access to safe WASH (water, sanitation, and hygiene) is a key factor in maternal and child nutritional health issues. Environmental factors have an extraordinary influence on the first 1,000 days of a child's life.

Maternal factors include poor maternal nutritional status during pregnancy, short stature,

 DOI 10.33024, http://ejurnalmalahayati.ac.id/index.php/kebidanan

and poor parenting practices, particularly in terms of feeding behavior and practices (Sukirno, 2019). Other factors contributing to stunting include maternal infections, adolescent pregnancy, short birth intervals, infections in infants such as diarrhea, nutrition education, economic conditions, family employment, and livelihood. Additionally, limited access to sanitation and clean water is a significant factor affecting children's growth (Kemenkes, 2018).

The government's efforts to prevent stunting are carried out through several programs. First, improving community nutrition through a supplementary feeding program (PMT) to improve children's nutritional status. Second, environment-based sanitation through improving the quality of environmental sanitation. Third, building healthy individual toilets and hand washing with soap, as well as policies targeting the poor to bring about behavioral change. Fourth, infrastructure development. The government is constructing water supply and sanitation infrastructure to improve the quality of life for people, one of which is to prevent stunting (Kominfo RI 2019).

Efforts to reduce the prevalence of stunting in Probolinggo Regency are carried out by accelerating the reduction of stunting prevalence in an integrated manner with the improvement of Open Defecation Free (ODF), addressing Uninhabitable Houses (RTLH), reducing poverty, and upgrading slum areas in Probolinggo Regency. Probolinggo Regency's efforts to improve nutrition are carried out using a continuum of care approach according to the life cycle, starting from early pregnancy, childbirth, postpartum mothers, infants, toddlers, adolescents, adults, and the elderly (Profil Dinkes, 2021). In addition to providing iron tablets and supplementary food to pregnant women, counseling for mothers on the importance of exclusive breastfeeding for child growth and development can be provided, and the provision of supplementary food in the form of animal protein for children is also recommended.

RESEARCH METHODS

The research design employed a quantitative approach using an analytical observational study, which only explains the relationship between variables through hypothesis testing without intervention or treatment of the sample. The research design used was a case-control study. This research was conducted in the Klenang Community Health Center working area, Banyuanyar District, Probolinggo Regency, from January to February 2025. The study sample consisted of mothers and infants aged 24–59 months in the Klenang Health Center working area, Probolinggo District, totaling 84 individuals with stunting and 84 individuals without stunting, for a total of 168 participants, using proportional random sampling. The independent variables in this study were Low Birth Weight (LBW), exclusive breastfeeding, birth spacing, parity, maternal nutritional status, infectious diseases, immunization status, age at pregnancy, access to clean water, and access to sanitation facilities, while the dependent variable was stunting. Data collection uses primary data for stunting toddler data, LBW history, exclusive breastfeeding data, infectious diseases, immunization status, maternal age during pregnancy, parity, birth spacing, maternal nutritional status, environmental sanitation, clean water sources, and access to sanitation facilities, obtained from researcher interviews cross-checked with the KIA book owned by the mothers. Data analysis was conducted using logistic regression testing.

RESEARCH RESULTS

Tabel 1
Frequency Distribution of Gender with Incidence of Stunting in Toddlers in the Klenang Community Health Center Working Area, Probolinggo Regency

Gender of Toddlers	Stunting Group		Not Stunting		Total	
	f	%	f	%	f	%
Male	41	48,8	47	56,0	88	52,4
Female	43	51,2	37	44,0	80	47,6

Table 1 explains that of the stunting group, most of the toddlers are female as many as 43 (51.2%), while for the non-stunting group, most of them are toddlers with male gender namely 47 toddlers (56.0%).

Table 2 explains that of the stunting group, most of the toddlers had underwight, namely 51 toddlers (60.8%), while for the non-stunting group, most of the toddlers had normal weight, namely 47 toddlers (56.0%).

Tabel 2
Frequency Distribution of Weight with the Incidence of Stunting in Toddlers in the Klenang Community Health Center Working Area, Probolinggo Regency

Weight of Toddlers	Stunting Group		Not Stunting		Total	
	f	%	f	%	f	%
Normal	33	39,2	47	56,0	80	47,6
Less	51	60,8	37	44,0	88	52,4

Tabel 3
Frequency Distribution of Height with the Incidence of Stunting in Toddlers in the Klenang Community Health Center Working Area, Probolinggo Regency

Height of Toddlers	Stunting Group		Not Stunting		Total	
	f	%	f	%	f	%
Normal	37	44,1	49	58,3	86	51,2
Short	47	55,9	35	41,7	82	48,8

Table 3 explains that of the stunting group, most of the toddlers had short height, namely 47 toddlers (55.9%), while while for the non-stunting group, most of the toddlers had normal height, namely 49 toddlers (58.3%).

Table 4 shows that almost all mothers in the stunting group were unemployed, namely 73 people (86.9%). Similarly, in the non-stunting group, almost all mothers were also unemployed, namely 65 people (77.4%).

Tabel 4
Frequency Distribution of Mother's Occupations with te Incidence of Stunting in Toddlers in the Klenang Community Health Center Working Area, Probolinggo Regency

Mother's Occupation	Stunting Group		Not Stunting		Total	
	f	%	f	%	f	%
Not Working	73	86,9	65	77,4	138	82,1
Work	11	13,1	19	22,6	30	17,9

Tabel 5
Frequency Distribution of Maternal Education and Incidence of Stunting in Toddlers in the Klenang Community Health Center Working Area, Probolinggo Regency

Mother's Education Level	Stunting Group		Not Stunting		Total	
	f	%	f	%	f	%
Basic (Elementary & Junior High Scool)	13	15,5	5	6,0	18	10,7
Senior High Scool	58	69,0	51	60,7	109	64,9
Higher Education (Diploma, Bachelor's)	13	15,5	28	33,3	41	24,4

Table 5 shows that most mothers in the stunting group had a secondary education (junior high school to high school), totaling 58 people (69.0%). Similarly, most mothers in the non-stunting group had a secondary education (junior high school to high school), totaling 51 people (60.7%).

 DOI 10.33024, http://ejurnalmalahayati.ac.id/index.php/kebidanan

Tabel 6
Frequency Distribution of Mothers' Income with Incidence of Stunting in Toddlers in the Klenang Community Health Center Working Area, Probolinggo Regency

Mother's Income	Stunting Group		Not Stunting		Total	
	f	%	f	%	f	%
< Rp 2.000.000	67	79,8	52	61,9	119	70,8
> Rp 2.000.000	17	20,3	32	38,1	49	29,2

Table 6 shows that almost all mothers in the stunting group have an income of less than Rp 2,000,000, namely 67 people (79.8%). Similarly, in the non-stunting group, the majority of mothers have an income of less than Rp 2,000,000, totaling 52 individuals (61.9%). This data was obtained during the data collection interviews. The incomes of both the stunting and non-stunting groups are still far below the regional minimum wage of Rp 2,989,407.

Tabel 7
The Effect of Low Birth Weight History on Stunting Incidence in Toddlers in the Klenang Community Health Center Working Area, Probolinggo Regency

LBW History	Stunting Group		Not Stunting		Total	
	f	%	f	%	f	%
LBW	40	47,6	0	0	40	23,8
Not LBW	44	52,4	84	100	128	76,2
P - *Value*	0,000					
Rsquare	0,445					
X^2 Hitung	68,164					
Odd Ratio	3,084					

Table 7 shows that most of the LBW toddlers experienced stunting, namely 44 infants (52.4%), while all toddlers who were not LBW and also not stunted numbered 84 infants (100%). The results of the logistic regression test yielded a calculated chi-square value of 68.164 with a p-value of 0.000. Therefore, there is an association between LBW and stunting among toddlers in the service area of the Klenang Health Center in Probolinggo District. The R-squared value indicates that 44.5% of stunting cases are influenced by LBW.

Tabel 8
The Effect of Exclusive Breastfeeding Status on Stunting Incidence in Toddlers in the Klenang Community Health Center Working Area, Probolinggo Regency

Exclusive Breastfeeding Status	Stunting Group		Not Stunting		Total	
	f	%	f	%	f	%
Exclusive Breastfeeding	71	84,5	64	76,2	135	80,4
Non-Exclusive Breastfeeding	13	15,5	20	23,8	33	19,6
P - *Value*	0,017					
Rsquare	0,147					
X^2 Hitung	1,859					
Odd Ratio	1,707					

Table 8 shows that almost all stunted toddlers were exclusively breastfed, totaling 71 toddlers (84.5%), while almost all toddlers who were exclusively breastfed and not stunted totaled 64 toddlers (76.2%). The results of the logistic regression test yielded a calculated chi-square

value of 1.859 with a p-value of 0.017. Therefore, there is an influence of exclusive breastfeeding status on stunting among toddlers in the service area of the Klenang Health Center in Probolinggo District. The R-square value indicates that 14.7% of stunting cases are influenced by exclusive breastfeeding status.

Tabel 9
The Effect of Infectious Diseases on Stunting Incidence in Toddlers in the Klenang Community Health Center Working Area, Probolinggo Regency

Infectious Disease History	Stunting Group		Not Stunting		Total	
	f	%	f	%	f	%
Present	1	1,2	2	2,4	3	1,8
Absent	83	98,8	82	97,6	165	98,2
P - *Value*	0,556					
Rsquare	0,003					
X^2 Hitung	0,346					
Odd Ratio	0,494					

Table 9 shows that almost all stunted toddlers did not have infectious diseases, namely 83 toddlers (98.8%), while almost all toddlers who did not have infectious diseases and were also not stunted numbered 82 infants (97.6%). The results of the logistic regression test yielded a calculated chi-square value of 0.003 with a p-value of 0.556. Therefore, there is no significant influence of infectious disease status on stunting among toddlers in the service area of the Klenang Health Center, Probolinggo District. The R-squared value indicates that 0.3% of stunting cases are influenced by infectious diseases.

Tabel 10
The Effect of Immunization Status on Stunting Incidence in Toddlers in the Klenang Community Health Center Working Area, Probolinggo Regency

Immunization Status	Stunting Group		Not Stunting		Total	
	f	%	f	%	f	%
Complete	73	86,9	76	90,5	149	88,7
Incomplete	11	13,1	8	9,5	19	11,3
P - *Value*	0,046					
Rsquare	0,425					
X^2 Hitung	5,536					
Odd Ratio	3,699					

Table 10 shows that almost all toddlers with stunting had complete immunization status, namely 73 toddlers (86.9%), while almost all toddlers with complete immunization status and no stunting totaled 76 toddlers (90.5%). The results of the logistic regression test yielded a calculated chi-square value of 5.536 with a p-value of 0.046. Therefore, there is an effect of immunization status on stunting in infants in the service area of the Klenang Health Center in Probolinggo District. The R-square value explains that 42.5% of the incidence of stunting is influenced by immunization status in the service area of the Klenang Health Center in Probolinggo District.

 DOI 10.33024, http://ejurnalmalahayati.ac.id/index.php/kebidanan

Tabel 11
The Effect of Maternal Nutritional Status on Stunting Incidence in Toddlers in the Klenang Community Health Center Working Area, Probolinggo Regency

Maternal Nutritional Status	Stunting Group		Not Stunting		Total	
	f	%	f	%	f	%
CED	52	61,9	50	59,5	102	80,7
Non-CED	32	38,1	34	40,5	66	39,3
P - *Value*	0,038					
Rsquare	0,238					
X^2 Hitung	4,100					
Odd Ratio	1,105					

Table 11 shows that most of the stunted toddlers with nutritional status of mothers with CED are 52 toddlers (61.9%), while most of the toddlers with nutritional status of mothers with CED and not stunted are 50 toddlers (59.5%). The results of the logistic regression test obtained a calculated chi-square value of 4.100 with a p-value of 0.038. Therefore, there is an influence of maternal nutritional status on stunting in toddlers in the service area of the Klenang Health Center, Probolinggo District. The R-square value indicates that 23.8% of stunting cases are influenced by maternal nutritional status.

Tabel 12
The Effect of Maternal Age During Pregnancy on Stunting Incidence in Toddlers in the Klenang Community Health Center Working Area, Probolinggo Regency

Maternal Age During Pregnancy	Stunting Group		Not Stunting		Total	
	f	%	f	%	f	%
At Risk (<20 dan > 35 years)	25	29,8	14	16,7	39	23,2
Not at Risk (20-35 years)	59	70,2	70	83,3	129	76,8
P - *Value*	0,043					
Rsquare	0,032					
X^2 Hitung	4,084					
Odd Ratio	2,119					

Table 12 shows that most stunted toddlers were born by mothers of non-risk age (20–35 years), namely 59 toddlers (70.2%), while nearly all toddlers whose mothers were of non-risk age (20–35 years) during pregnancy and were not stunted totaled 70 toddlers (83.3%). The results of the logistic regression test obtained a calculated chi-square value of 4.084 with a p-value of 0.043. Thus, there is an influence of maternal age during pregnancy on stunting in toddlers in the service area of the Klenang Health Center in Probolinggo District. The R-square value indicates that 3.2% of stunting cases are influenced by maternal age during pregnancy.

Table 13 shows that almost all stunted toddlers with parity 1–3, totaling 80 toddlers (95.6%), were stunted, while almost all toddlers with parity 1–3 who were not stunted totaled 81 toddlers (96.4%). The results of the logistic regression test obtained a calculated chi-square value of 5.150 with a p-value of 0.027. Thus, there is an influence of parity on stunting among toddlers in the service area of the Klenang Health Center in Probolinggo District. The R-square value indicates that 18.6% of stunting cases are influenced by parity.

Tabel 13
The Effect of Parity on the Incidence of Stunting in Toddlers in the Klenang Community Health Center Working Area, Probolinggo Regency

Parity	Stunting Group		Not Stunting		Total	
	f	%	f	%	f	%
1 – 3	80	95,6	81	96,4	161	85,8
≥ 4	4	4,8	3	3,6	7	4,2
P - *Value*	0,027					
Rsquare	0,186					
X^2 Hitung	5,150					
Odd Ratio	2,741					

Tabel 14
The Effect of Birth Interval on the Incidence of Stunting in Toddlers in the Klenang Community Health Center Working Area, Probolinggo Regency

Birth Interval	Stunting Group		Not Stunting		Total	
	f	%	f	%	f	%
< 18 months	36	42,9	39	46,4	75	44,6
18 – 24 months	13	15,5	12	14,3	25	14,9
> 24 months	35	41,7	33	39,3	68	40,5
P - *Value*	0,047					
Rsquare	0,390					
X^2 Hitung	6,175					
Odd Ratio	2,932					

Table 14 shows that nearly half of stunted toddlers with an interbirth interval of < 18 months, totaling 36 toddlers (42.9%), while nearly half of non-stunted toddlers also had an interbirth interval of < 18 months, totaling 39 toddlers (46.4%). The results of the logistic regression test yielded a calculated chi-square value of 6.175 with a p-value of 0.047. Therefore, there is an influence of birth interval on stunting among toddlers in the service area of the Klenang Health Center in Probolinggo District. The R-square value indicates that 39.0% of stunting cases are influenced by birth interval.

Tabel 15
The Effect of Clean Water Sources on Stunting Incidence in Toddlers in the Klenang Community Health Center Working Area, Probolinggo Regency

Source of Clean Water	Stunting Group		Not Stunting		Total	
	f	%	f	%	f	%
Well/ Piped Water PDAM)	62	73,8	84	100	146	86,9
River	22	26,2	0	0	22	13,1
P - *Value*	0,000					
Rsquare	0,242					
X^2 Hitung	33,826					
Odd Ratio	0,000					

Table 15 shows that most stunted toddlers have access to clean water from wells/PDAM, namely 62 toddlers (73.8%), while all non-stunted toddlers have access to clean water from wells/PDAM, namely 84 toddlers (100%). The results of the logistic regression test yielded a calculated chi-square value of 33.826 with a p-value of 0.000. Therefore, there is an influence of clean

 DOI 10.33024, http://ejurnalmalahayati.ac.id/index.php/kebidanan

water sources on stunting among toddlers in the service area of the Klenang Health Center in Probolinggo District. The R-square value indicates that 24.2% of stunting cases are influenced by clean water sources.

Tabel 16
The Effect of Latrine Access on the Incidence of Stunting in Toddlers in the Klenang Community Health Center Working Area, Probolinggo Regency

Latrine Access	Stunting Group		Not Stunting		Total	
	f	%	f	%	f	%
Has Latrine	77	91,7	80	95,2	157	93,5
No Latrine	7	8,3	4	4,8	11	6,5
P - *Value*	0,347					
Rsquare	0,007					
X^2 Hitung	0,886					
Odd Ratio	0,550					

Table 16 shows that almost all stunted toddlers have good latrine access, namely 77 toddlers (91.7%), while almost all toddlers who have good latrine access and are not stunted number 80 toddlers (95.2%). The results of the logistic regression test yielded a calculated chi-square value of 0.007 with a p-value of 0.347. Therefore, there is no significant association between access to sanitation facilities and stunting among toddlers in the service area of the Klenang Health Center, Probolinggo District. The R-squared value indicates that 5.0% of stunting cases are influenced by access to sanitation facilities.

Tabel 17
Rsquare Value

Model Summary			
Step	*-2 Log likelihood*	*Cox & Snell R Square*	*Nagelkerke R Square*
1	157.068[a]	0.363	0.484

Table 17 explains that the Nagelkerke R Square value is 0.484, concluding that the contribution of the independent variables (LBW, Exclusive Breastfeeding, Infectious Diseases, Immunization Status, Maternal Nutritional Status, Maternal Age during Pregnancy, Parity, Access to Latrines, Clean Water Sources, Birth Interval) to the dependent variable collectively (Simultaneously) is 48.4%, the rest is due to other factors.

Tabel 18
The Most Influential Factors Associated with Stunting in Toddlers in the Klenang Community Health Center Working Area, Probolinggo Regency

Variable	df	P – Value	Odd Ratio
Low Birth Weight (LBW)	1	0,040	5,260
Exclusive Breastfeeding	1	0,021	1,942
Infectious Disease	1	0,400	0,000
Immunization Status	1	0,048	1,164
Maternal Nutritional Status	1	0,048	2,170
Maternal Age	1	0,040	1,508
Parity	1	0,044	0,466
Laterine Ownership	1	0,603	0,671

Birth Interval	1	0,931	1,019
Source of Clean Water	1	0,997	0,000

Table 19 explains that the partial correlation test results conclude that the most dominant factor influencing the incidence of stunting is the LBW factor and followed by Maternal Nutritional Status.

DISCUSSION

The Effect of Low Birth Weight on Stunting Incidence.

The results of this study are in line with (Permadi & Arini, 2023) which conducted a statistical test using the Odds Ratio (OR) formula, yielding an OR value of 3.000 at a 95% CI of 1.046–8.603 and a P-value of 0.038. From this study, it is concluded that low birth weight (LBW) is a significant risk factor for stunting. Specifically, infants with a history of LBW are 3.000 times more likely to develop stunting compared to infants without such a history. The study results (Wulandari & Kurniawati, 2023) found that the majority of respondents with low birth weight (LBW) experienced stunting, totaling 10 individuals (55.6%), while a small proportion did not experience stunting, totaling 8 individuals (44.4%) (P=0.004).

LBW is one of the important indicators related to the risk of stunting. Children born with low birth weight are more susceptible to growth and development problems. Research shows that LBW has a significant odds ratio (OR) for stunting, where children with LBW are more likely to experience stunting than children born with normal birth weight.(Permadi & Arini, 2023).

LBW is closely related to a child's long-term growth and development. Therefore, the long-term impact can be growth failure. Children with a history of LBW will find it difficult to catch up on their growth at the beginning of their lives, which will lead to stunting (Cahyani et al., 2019).

This occurs because babies born with LBW have already experienced intrauterine growth retardation in the womb, which can continue after birth, resulting in slower growth and development than babies born at normal weight. These babies often fail to catch up to the growth levels they should have achieved after birth (Albayani et al., 2020).

The Effect of Exclusive Breastfeeding on Stunting Incidence.

The results of the logistic regression test show that there is an effect of exclusive breastfeeding status on stunting in toddlers in the working area of the Klenang Community Health Center in Probolinggo Regency. This is in line with the research conducted by (Sr. Anita Sampe SJMJ et al., 2020) with research results using the chi-square test and followed up with an odds ratio test. The chi-square test yielded a p-value of 0.000 (0.000 < 0.05), indicating a significant association between exclusive breastfeeding and stunting in infants. Meanwhile, the odds ratio test yielded a value of OR = 61, meaning that infants not given exclusive breastfeeding are 61 times more likely to experience stunting compared to those given exclusive breastfeeding. Exclusive breastfeeding can reduce the risk of stunting.

Exclusive breastfeeding during the first six months of life is very important to support child growth. Research shows that children who do not receive exclusive breastfeeding have a higher risk of stunting. In one study, it was found that only 28.6% of children in the case group (stunting) received exclusive breastfeeding, compared to 65.1% in the control group. Breast milk contains complete nutrients and antibodies that can boost a baby's immunity, thereby helping to reduce the risk of infection and supporting optimal growth (Novayanti et al., 2021).

Breast milk is the only ideal food that is best and most perfect for babies to meet their physical and psychological needs as they grow and develop. Babies who are breastfed grow better than babies who are given water or complementary foods before the age of 6 months (Wijayanti et al., 2020).

Infants who are not exclusively breastfed are 6.6 times more likely to experience stunting. This is because exclusive breastfeeding provides colostrum. Colostrum contains immune substances, particularly IgA, which protect infants from gastrointestinal infections, especially diarrhea. According to researchers, the colostrum in breast milk can protect infants from gastrointestinal infections. If a gastrointestinal infection occurs, it can lead to a decrease in the infant's nutritional needs. Unmet nutritional needs can result in nutritional problems for the infant (Purnamasari & Rahmawati, 2021).

The Effect of Infectious Disease on Stunting Incidence.

The regression test results show that there is no effect of infectious disease status on stunting in toddlers in the working area of the Klenang

 DOI 10.33024, http://ejurnalmalahayati.ac.id/index.php/kebidanan

Community Health Center in Probolinggo Regency. This finding is inconsistent with the study conducted by (Khairani & Effendi, 2020) which used the Chi-Square test (Fisher Exact Test) to examine the relationship between a history of infectious diseases and the occurrence of stunting in infants at the Ratu Samban Subdistrict Health Post in Bengkulu City. The results of the Fisher Exact Test showed that the exact.sig (p) value was 0.228. Therefore, there was no significant association between the history of infectious diseases and the occurrence of stunting at the Posyandu in Ratu Samban Subdistrict, Bengkulu City.

Recurrent infections in toddlers, such as diarrhea and acute respiratory infections (ARI), can interfere with nutritional intake and increase children's metabolic needs to fight pathogens. This contributes to an increased risk of stunting. Research shows that 81% of infants in the stunting case group experienced infectious diseases, while only 55.6% in the control group did. Infectious diseases can cause malnutrition due to reduced appetite and impaired nutrient absorption (Sumartini, 2022).

Infectious diseases are one of the direct causes of stunting. The link between infectious diseases and nutritional intake cannot be separated. The presence of infectious diseases will worsen the situation if there is a lack of nutritional intake. Toddlers who are malnourished will be more susceptible to infectious diseases. Therefore, addressing infectious diseases as early as possible will help improve nutrition, provided that it is accompanied by adequate nutrient intake tailored to the needs of infants (Subroto et al., 2021) .

According to researchers, toddlers who consume food as a result of poor hygiene practices may increase their risk of contracting infectious diseases. However, in the study, there were cases of children who experienced infections but did not experience stunting, which was typically due to the short duration of the infection, adequate nutrient intake during illness, and appropriate healthcare management by parents or healthcare services.

The Effect of Immunization Status on Stunting Incidence.

The results of the logistic regression test show that immunization status has an effect on stunting in toddlers in the working area of the Klenang Community Health Center in Probolinggo Regency. These findings align with the research conducted by which found a significant association between the history of basic immunization status and the occurrence of stunting in infants in Hegarmanah Village, Jatinangor Subdistrict, with a p-value of <0.05 (p=0.00<0.05). Additionally, there is a 4.9-fold higher risk of stunting in infants with incomplete immunization compared to those with complete immunization. This is also consistent with the study conducted by (Zuhrotunida et al., 2024) where the bivariate analysis revealed a significant association between the completeness of infant immunization and maternal responsive feeding practices with stunting cases (p-value = 0.000).

Immunization is an important factor in preventing infectious diseases in children. Incomplete immunization status is closely associated with an increased risk of stunting. In the study, 52.4% of the case group did not have complete immunization status compared to 22.2% in the control group. Immunization helps protect children from diseases that can cause serious complications and growth disorders (Wahyuni, 2020).

Immunization for toddlers, especially during their early years, is extremely important because it helps boost their immune system. If toddlers are not immunized from an early age, they may be more susceptible to infectious diseases, have poor appetite, and experience nutrient absorption disorders, which will increase their nutritional needs. The need for both macro and micro nutrients is extremely high during the first two years of a toddler's life to support their rapid growth phase (Sutriyawan et al., 2020)

The Effect of Maternal Nutritional Status on Stunting.

The results of the analysis show that there is an influence of maternal nutritional status on stunting in toddlers in the working area of the Klenang Community Health Center in Probolinggo Regency. This study is in line with research conducted by (Trisyani et al., 2020) which shows that bivariate analysis results indicate that maternal education level, maternal age during pregnancy, and birth spacing are not associated with stunting (p-value > 0.05). Meanwhile, maternal nutritional status during pregnancy shows a significant association with stunting incidence (p-value < 0.05).

Maternal nutritional status is an important indicator that reflects the balance between nutrient intake and utilization in the body, which greatly affects maternal health and child development. In the context of pregnant women, this nutritional status reflects the balance of nutrients needed to support maternal health and fetal growth. Good nutritional status is crucial for the health of both the mother and the child. Nutritional deficiencies in

mothers can increase the risk of complications during pregnancy, such as anemia and preeclampsia. Additionally, adequate nutrient intake contributes to the child's brain and physical development and reduces the risk of stunting (Putri & Salsabila, 2023). During pregnancy, the mother is the primary source of nutrition for the baby she is carrying. What the mother eats will affect the baby's condition. If a pregnant woman has poor nutritional status during pregnancy, she is at risk of having a baby with poor health conditions. Women with good nutritional status will give birth to healthy babies. Pregnant women with poor nutritional status are at high risk of miscarriage, fetal death, neonatal death, birth defects, and low birth weight (Trisyani et al., 2020).

The Effect of Maternal Age on Stunting Incidence.

The regression test results show that there is an effect of maternal age during pregnancy on stunting in toddlers in the working area of the Klenang Community Health Center in Probolinggo Regency. The Rsquare value explains that 3.2% of stunting cases are influenced by maternal age during pregnancy. This aligns with research conducted by (Pusmaika et al., 2022) which analyzed data using univariate and bivariate analysis with a chi-square test. The results showed that the mother's age during pregnancy is associated with stunting (p=0.036). The study shows that mothers who are pregnant under the age of 20 or over 35 have a higher risk of giving birth to children with poor nutritional status and stunting compared to mothers aged between 20 and 35, who are 3.927 times more likely to have children with poor or inadequate nutritional status. As many as 26.7% of mothers in the high-risk age group gave birth to children with poor nutritional status, while 91.5% of mothers in the low-risk age group (20–35 years) had children with good nutritional status. Research shows that young pregnant women often experience competition for nutrients between themselves and their fetuses, which can lead to malnutrition for both (Nurhidayati et al., 2020).

Teenage mothers lack the ability to ensure adequate food intake for their children, access to safe water, and sanitation conditions, given all the problems associated with giving birth at a young age. Nutritional competition occurs between the mother's developmental needs and those of the fetus, psychological unpreparedness for breastfeeding, or insufficient financial resources to meet the baby's needs due to poor socioeconomic conditions. Teenage mothers may not be accepted by their parents, their partners may also be teenagers without stable income sources, and they may face personal pressure due to becoming pregnant prematurely and dropping out of school. As a result of these issues, the quantity and quality of care, nurturing, and parenting they provide to their children may be inferior compared to children of older mothers. This is likely to affect the growth and development of their children, leading to malnutrition and other growth deficits (Pusmaika et al., 2022).

Pregnancy during adolescence is not recommended from a health perspective because it is related to the readiness of a prospective mother's reproductive organs, as well as psychological factors that are not yet ready to accept pregnancy and will affect the baby being born. Pregnancy during adolescence can increase the risk of malnutrition in children. Children born to mothers who married during adolescence are at a higher risk of malnutrition compared to those born to mothers who married at a more mature age.

The Effect of Parity on Stunting Incidence.

he results of the logistic regression test show that parity has an effect on stunting in toddlers in the working area of the Klenang Community Health Center in Probolinggo Regency. This study aligns with research conducted by (Fitriani & Ofan, 2021) which found a significant association between parity and stunting in children aged 0–59 months ($p = 0.002 < 0.05$), indicating a relationship between age and parity with stunting in children aged 0–59 months.

The number of births a woman experiences has a significant impact on her child's nutritional status. The higher a mother's parity, the greater the risk of her child experiencing nutritional problems, including stunting and malnutrition. Children born to mothers with high parity (more than two children) have a 3.25 times higher risk of stunting compared to children of mothers with low parity (one or two children). Limited resource allocation among many children can reduce attention and the fulfillment of each child's nutritional needs. Data from RISKESDAS, 2018, shows that the prevalence of stunting among toddlers in Indonesia reached 30.8% in 2018. Other studies have also found that mothers with high parity are 16 times more likely to have children with abnormal nutritional status (Susilawati et al., 2022).

Mengendalikan jumlah anak dalam keluarga melalui penggunaan alat kontrasepsi dapat membantu mengurangi angka balita dengan status

 DOI 10.33024, http://ejurnalmalahayati.ac.id/index.php/kebidanan

gizi kurang. Hal ini penting untuk memastikan bahwa setiap anak mendapatkan perhatian dan nutrisi yang cukup.

The Effect of Birth Interval on Stunting Incidence

The results of the logistic regression test show that birth spacing has an effect on stunting in toddlers in the working area of the Klenang Community Health Center in Probolinggo Regency. Birth spacing is the interval between the birth of one child and the next. According to the National Family Planning Coordination Agency (BKKBN) and the World Health Organization (WHO), the ideal birth spacing is between 2 and 3 years. This spacing is important to reduce health risks for both the mother and the child, including infant mortality and complications during pregnancy.

Too short birth intervals, especially less than 2 years, increase the risk of stunting in children. This is because the mother has not fully recovered from the previous pregnancy, which affects fetal growth and the health of the subsequent child. Children born with birth intervals of less than 2 years have an 11.65 times higher risk of stunting compared to children with birth intervals of 2 years or more..

The Effect of Clean Water on Stunting Incidence.

The results of the logistic regression test show that there is an influence of clean water sources on stunting in toddlers in the working area of the Klenang Community Health Center in Probolinggo Regency. This study aligns with research conducted by (Nisa et al., 2021) which found that bivariate analysis demonstrated a significant association between sanitation and clean water supply with stunting incidence, with a p-value of 0.047 ($p \leq 0.05$). The OR value in this study is 2.705 with a 95% CI of 1.103–6.634. The results of this study show that respondents with poor clean water supply sanitation have a 2.705 times greater chance of experiencing stunting compared to respondents with good clean water supply sanitation.

The availability of unimproved drinking water from unimproved sources, the proximity of water sources to latrines, and inadequate water treatment before consumption can cause nutritional disorders in children. This occurs because the water contains pathogenic microorganisms and other chemicals, causing children to suffer from diarrhea and EED. If diarrhea persists for more than two weeks, it can cause children to suffer from nutritional disorders in the form of stunting (Rustam et al., 2023).

Therefore, researchers believe that attention is needed from all parties, especially families, regarding the need for safe drinking water, starting from protected water sources, quantity, quality, storage, and water treatment, especially for children under 1000 HPK, to prevent and reduce stunting in toddlers in Indonesia.

The Effect of Latrine Access on Stunting Incidence.

The results of the logistic regression test showed that access to latrine had no effect on stunting in toddlers in the working area of the Klenang Community Health Center in Probolinggo Regency. Several studies have stated that owning a healthy latrine has no connection with the incidence of stunting, but these studies show that owning a healthy latrine is a protective factor. This suggests that owning a healthy latrine is not the only factor causing stunting (Adzura et al., 2021). Poor sanitation and limited access to clean water significantly contribute to the high stunting rates in Indonesia. Programs such as the Community-Based Water Supply and Sanitation Program (PAMSIMAS) aim to improve community access to clean water and adequate sanitation (Trisutrisno et al., 2024).

Families have healthy latrine in their homes to prevent contamination of nearby water sources and to prevent the arrival of flies or insects that can transmit diarrhea, and exclusive breastfeeding plays an important role in babies, such as boosting their immune systems. Government agencies such as health centers conduct awareness campaigns and initiatives related to the “Stop Open Defecation” (SOD) program to encourage the community to use latrine and have healthy latrine.

Health centers survey respondents who do not have toilets, use neighbors' toilets, or share toilets/communal toilets. Shared toilets can reduce construction and maintenance costs because they are used alternately by several households or families, making them more cost-effective than building individual toilets. Shared toilets can be a solution for communities unable to build their own toilets. Drawbacks of using shared toilets include discomfort and lack of privacy for users, especially if there are many users or poor management.

The Most Influential Factors Associated with Stunting in Toddlers in the Working Area of The Klenang Community Health Center in Probolinggo Regency.

The Nagelkerke R Square value is 0.484, so it can be concluded that the contribution of the independent variables (BBLR, exclusive

breastfeeding, infectious diseases, immunization status, maternal nutritional status, maternal age during pregnancy, parity, Toilet Access, Clean Water Source, Birth Interval) on the dependent variable collectively (simultaneously) is 48.4%, with the remaining 51.6% attributed to other factors. The most dominant factor influencing stunting incidence is BBLR, followed by Maternal Nutritional Status.

This is in line with the research conducted by (Adyas et al., 2019) namely that from the results of multivariate/multiple analysis, the OR value has been controlled (adjusted) by other variables in the model. The researchers concluded that the variables with a significant association in this study are maternal employment, history of low birth weight (LBW), and basic childcare practices, while the most dominant factor influencing stunting status is the history of LBW.

Low birth weight is the most dominant factor influencing the incidence of stunting because low birth weight greatly increases the likelihood of becoming a short toddler. This is caused by a lack of nutrition during pregnancy, nutritional deficiencies during pregnancy are exacerbated by the mother's status as a non-working individual, resulting in nutritional needs being solely dependent on the husband's income, which increases the risk of nutritional deficiencies during pregnancy. Additionally, having a history of LBW necessitates special care, as well as reduced immune system, leading to stunting due to infants and toddlers being at risk of not receiving exclusive breastfeeding, being susceptible to recurrent infectious diseases, and not receiving adequate nutrient-rich complementary foods (Adyas et al., 2019).

Recommendations for mothers with a history of low birth weight or who have low birth weight babies can attend educational sessions held by researchers at the village hall on stunting and, in general, consult with health professionals such as pediatricians and village midwives on whether to give supplementary food in the form of complementary feeding (P-ASI) or not. If it is necessary, it is recommended to use P-ASI that contains high nutrients such as high protein, high vitamins, high fats, and nutrients related to infant weight gain. Also, visit the health post regularly so that toddlers experiencing stunting receive proper and timely healthcare services..

CONCLUSION

The most dominant factor influencing stunting is low birth weight, followed by maternal nutritional status. Stunting due to LBW is highly likely to result in short stature in infants, as it is caused by inadequate nutrition during pregnancy. Inadequate nutrition during pregnancy is exacerbated by the mother's lack of employment, meaning that nutritional needs rely solely on the husband's income, which increases the risk of nutritional deficiency during pregnancy and is compounded by a history of LBW.

SUGGESTION

Health workers increase education and outreach to pregnant women, mothers of young children, and prospective parents about stunting, nutrition, parenting, and the prevention of infectious diseases, through health posts, health cadres, and digital media. Provision of local PMT, providing milk assistance to stunted toddlers.

REFERENCES

Adyas, A., Dika, & Karbito. (2019). BBLR diprediksi Faktor Utama Kejadian Stunting di Provinsi Lampung: Warning untuk Ibu Bekerja dan Penerapan Pola Asuh. *Jurnal Ilmiah Kesehatan Masyarakat*, *11*(4), 325–335.

Adzura, M., Fathmawati, & Yulia. (2021). Hubungan Sanitasi, Air Bersih dan Mencuci Tangan dengan Kejadian Stunting pada Balita di Indonesia. *Jurnal Sulolipu: Media Komunikasi Sivitas Akademika Dan Masyarakat*, *21*(1), 79–89. https://doi.org/10.32382/SULOLIPU.V21I1.2098

Albayani, M. I., Ahmad Dedi Mardani, R., & Arifin, Z. (2020). Hubungan Berat Badan Lahir Bayi Dengan Kejadian Stunting Pada Balita Di Wilayah Kerja Puskesmas Gunungsari Kabupaten Lombok Barat. *Jurnal Kesehatan Qamarul Huda*, *8*(1), 42–46. http://download.garuda.kemdikbud.go.id/article.php?article=2599742&val=24461&title=Hubungan Berat Badan Lahir Bayi Dengan Kejadian Stunting Pada Balita Di Wilayah Kerja Puskesmas Gunungsari Kabupaten Lombok Barat

Cahyani, R., Abidin, U. W., & Liliandriani, A. (2019). Faktor Risiko Kejadian Stunting pada Balita di Wilayah Kerja Puskesmas Mapilli Kecamatan Mapilli Kabupaten Polewali Mandar. *Journal Peqguruang*, *1*(1), 10–15. https://doi.org/10.35329/JP.V1I1.610

Fitriani, L., & Ofan, H. (2021). Umur dan Paritas Berhubungan dengan Stunting pada Anak 0-59 Bulan. *Jurnal Kesehatan Masyarakat (J-KESMAS)*, *7*(2), 148–153.

Kalsum, U., & Islakhiyah, I. (2022). Status Gizi Prahamil Ibu sebagai Faktor Dominan

Kejadian Stunting pada Balita (24-59 Bulan) di Kabupaten Kerinci. *Jurnal Ilmiah Permas: Jurnal Ilmiah STIKES Kendal*, *12*(2), 437–450. http://journal2.stikeskendal.ac.id/index.php/PSKM/article/view/159

Kemenkes, R. I. (2018). *Riset Kesehatan Dasar 2018*.

Khairani, N., & Effendi, S. U. (2020). Analisis Kejadian Stunting pada Balita Ditinjau dari Status Imunisasi Dasar dan Riwayat Penyakit Infeksi. *PREPOTIF : Jurnal Kesehatan Masyarakat*, *4*(2), 228–234. https://doi.org/10.31004/PREPOTIF.V4I2.1030

Nisa, S. K., Lustiyati, E. D., & Fitriani, A. (2021). Sanitasi Penyediaan Air Bersih dengan Kejadian Stunting pada Balita. *Jurnal Penelitian Dan Pengembangan Kesehatan Masyarakat Indonesia*, *2*(1), 17–25. https://doi.org/10.15294/JPPKMI.V2I1.47243

Novayanti, L. H., Armini, N. W., & Mauliku, J. (2021). Hubungan Pemberian ASI Eksklusif dengan Kejadian Stunting pada Balita Umur 12-59 Bulan di Puskesmas Banjar I Tahun 2021. *Jurnal Ilmiah Kebidanan (The Journal Of Midwifery)*, *9*(2), 132–139. https://doi.org/10.33992/JIK.V9I2.1413

Nurhidayati, T., Rosiana, H., & Rozikhan. (2020). Usia Ibu Saat Hamil Dan Kejadian Stunting Pada Anak Usia 1-3 Tahun. *Midwifery Care Journal*, *1*(5), 122–126.

Paraneetharan. (2022, November 23). *Pekan ASI Sedunia. Islamic medical association and network of Indonesia*. https://scholar.google.com/scholar?hl=en&as_sdt=0,5&q=Paraneetharan.+(2022).+Pekan+ASI+Sedunia.+Islamic+medical+association+and+network+of+Indonesia.+23+November+2022.+URL+:+https://imani-prokami.or.id/pekan-asi-sedunia/

Permadi, A. R., & Arini, S. Y. (2023). Faktor risiko stunting pada balita (0-5 tahun) dengan riwayat BBLR di Desa Mayangrejo Kabupaten Bojonegoro. *Jurnal Kesehatan Tambusai*, *4*(3), 3270–3276. https://scholar.google.com/scholar?hl=en&as_sdt=0%252C5&q=Permadi%252C+A.+R.%252C+%2526+Arini%252C+S.+Y.+%25282023%2529.+Faktor+risiko+stunting+pada+balita+%25280-5+tahun%2529+dengan+riwayat+BBLR+di+Desa+Mayangrejo+Kabupaten+Bojonegoro.+Jurnal+Kesehatan+Tambusai%252C+4%25283%252

Purnamasari, M., & Rahmawati, T. (2021). Hubungan Pemberian Asi Eksklusif dengan Kejadian Stunting Pada Balita Umur 24-59 Bulan. *Jurnal Ilmiah Kesehatan Sandi Husada*, *10*(1), 290–299. https://doi.org/10.35816/jiskh.v10i1.490

Pusmaika, R., Novfrida, Y., Juliana Simatupang, E., Djami, M. E., Sumiyati, I., & Kebidanan Bina Husada Tangerang, A. (2022). Hubungan Usia Ibu Saat Hamil dengan Kejadian Stunting Pada Balita di Kabupaten Tangerang. *Indonesian Health Issue*, *1*(1), 49–56. https://doi.org/10.47134/INHIS.V1I1.11

Putri, A. A., & Salsabila, S. (2023). Dampak Penyakit KEK pada Ibu Hamil. *Jurnal Kreativitas Ilmiah Mahasiswa*, *1*(3), 246–253.

Rustam, E., Rahayu, A., Surasno, D. M., & B. Toduho, N. (2023). Analisis Intervensi Sensitif dan Tingkat Pengetahuan Terhadap Kejadian Stunting Pada Balita di Wilayah Kerja Puskesmas Soasio Kota Tidore Kepulauan Tahun 2022. *JURNAL BIOSAINSTEK*, *5*(2), 71–77. https://doi.org/10.52046/BIOSAINSTEK.V5I2.1648

Sr. Anita Sampe SJMJ, Toban, R. C., & Madi, M. A. (2020). Hubungan Pemberian ASI Eksklusif Dengan Kejadian Stunting Pada Balita. *Jurnal Ilmiah Kesehatan Sandi Husada*, *9*(1), 448–455. https://doi.org/10.35816/JISKH.V11I1.314

Subroto, T., Novikasari, L., & Setiawati, S. (2021). Hubungan Riwayat Penyakit Infeksi dengan Kejadian Stunting pada Anak Usia 12-59 Bulan. *Jurnal Kebidanan Malahayati*, *7*(2), 200–206. https://doi.org/10.33024/JKM.V7I2.4140

Sumartini, E. (2022). Studi Literatur : Riwayat Penyakit Infeksi Dan Stunting Pada Balita. *Jurnal Kesehatan Mahardika*, *9*(1), 55–62. https://doi.org/10.54867/JKM.V9I1.101

Susilawati, E., Yanti, & Helina, S. (2022). *Bidan, ASI Eksklusif, Dan Stunting: Peran Bidan Sebagai Garda Terdepan Pendukung Keberhasilan ASI Eksklusif Pada Ibu Menyusui Sebagai Langkah Pencegahan Stunting*. Taman Karya.

Sutriyawan, A., Kurniawati, R. D., Rahayu, S., & Habibi, J. (2020). Hubungan Status Imunisasi dan Riwayat Penyakit Infeksi dengan Kejadian Stunting pada Balita: Studi Retrospektif. *Journal Of Midwifery*, *8*(2), 1–9. https://doi.org/10.37676/JM.V8I2.1197

Trisutrisno, I., Anggereni, K., Indryani, & Nurdin, I.

(2024). Penerapan Program Stunting di Indonesia: Narrative Review. *Jurnal Suara Kesehatan*, *10*(2), 51–64.

Trisyani, K., Fara, Y. D., Mayasari. Ade Tyas, & Abdullah. (2020). Hubungan Faktor Ibu Dengan Kejadian Stunting. *Jurnal Maternitas Aisyah (JAMAN AISYAH)*, *1*(3), 189–197.

Unicef. (2022). *Pekan Menyusui Sedunia: UNICEF dan WHO serukan dukungan yang lebih besar terhadap pemberian ASI di Indonesia seiring penurunan tingkat menyusui selama pandemi COVID-19*. https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=Unicef%2C+2022.+Pekan+Menyusui+Sedunia.+Diakses%3Awww.unicef.org%2F+indonesia%2Fid%2F+press-releases%2Fpekan-menyusui-sedunia+tanggal+22+November+2022.&btnG=

Wahyuni, I. (2020). Analisis Faktor Masalah Pertumbuhan: Status Gizi, Stunting pada Anak Usia < 5 Tahun di Wilayah Kerja Puskesmas Sidomulyo Kota Pekanbaru. *Jurnal Kebidanan Mutiara Mahakam*, *8*(1), 51–70. https://doi.org/10.36998/JKMM.V8I1.82

Wijayanti, F., Pramulya S, I., & Saparwati, M. (2020). Hubungan Pemberian Asi Eksklusif dengan Kejadian Stunting pada Balita Usia 24-60 Bulan. *Jurnal Kesehatan Kusuma Husada*, 35–41. https://doi.org/10.34035/JK.V12I1.545

Wulandari, A., & Kurniawati, H. F. (2023). Faktor-Faktor yang Mempengaruhi Stunting: Studi Kasus pada Puskesmas di Bantul, Daerah Istimewa Yogyakarta. *Buletin Ilmu Kebidanan Dan Keperawatan (BIKK)*, *2*(01), 51–58. https://doi.org/10.56741/bikk.v2i01.180

Zuhrotunida, Sriyanah, N., Wulansari, M., Kartadarma, S., & Indriani, R. (2024). Hubungan Status Imunisasi dan Sikap Responsive Feeding Terhadap Kejadian Stunting. *Ensiklopedia of Journal*, *6*(2), 344–352. https://doi.org/10.33559/EOJ.V6I3.2224