

## DETERMINANTS OF EXCLUSIVE BREASTFEEDING TO 0-6 MONTH BABIES IN STUNTING HANDLING IN THE DISTRICT OF KUPANG

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### ABSTRACT

*Stunting is a form of failure to thrive at high altitude (stunting) due to accumulation of malnutrition that persists from conception to 24 months of age (Bloem et al, 2013). This situation is exacerbated by insufficient catch-up growth (Kusharispeni, 2002). The index for identifying stunted young children is based on the age index (TB/U) according to the WHO criteria (2015). -2 standard deviations (SD). The aim of this study was to analyze the determinants of exclusive breastfeeding at 0-6 months of age to prevent stunting in NTT's Kupang County. This type of study is quantitative with a cross-sectional design. The study population consisted of breastfeeding mothers and infants aged 0-6 months from Kupang District, East Nusa Tenggara. The sample was a breastfeeding mother aged 0–6 months who met the inclusion criteria, i.e., live birth willing to be a respondent, single birth, nondisabled, free of comorbidities mothers and infants. was an infant. The number of samples is 75. The sampling technique is cluster random sampling. Results showed that there was no significant association between respondents' workplace characteristics and incidence of stunting,  $p=0.21 > \alpha=0.05$ . There are important relationships. Age  $p=0.0001 < \alpha=0.05$ ; Education  $0.028 < \alpha=0.05$  Knowledge  $p=0.003 < \alpha=0.05$ ; Role  $p=0.0001 < \alpha=0.05$ . It was concluded that age, education, knowledge, family support, officer role, and family role were determinants of exclusive breastfeeding to prevent stunting. We recommend using this model to prevent growth retardation.*

**KEYWORDS** Determinants, exclusive breastfeeding, stunting.



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## INTRODUCTION

Nutrition is still an unsolved problem. One of the nutritional problems facing young children in the world and in Indonesia today is the incidence of small or very young children or children commonly known as stunting. Stunting is a form of failure to thrive at high altitude (stunting) due to accumulation of malnutrition that persists from conception to 24 months of age (Bloem et al, 2013). This situation is exacerbated by insufficient catch-up growth (Kusharispeni, 2002). A discriminator for stunted infants is z-score TB/U < -2 standard deviations (SD) (Picauly & Toy, 2013).

Stunting, often referred to as stunting or growth retardation, is the inability to thrive in children under the age of five (infants) due to chronic malnutrition and repeated infections, especially during the first 1,000 days of life (HPK). I. H. From fetal to 24 months old. A child is classified as underdeveloped if its length or height is less than the length or height of children of the same age minus two standard deviations. Globally, stunting is a global problem, with some countries including Indonesia having an incidence of stunting in excess of 30% of her age and a prevalence of half of Indonesian infants with stunting. has reached or more.

The WHO states that stunting is a serious public health problem with a prevalence of 30-39% and a serious problem with a prevalence of 40% or more (WHO, 2010). According to World Health Statistics, the global prevalence of stunting is 26.7% (WHO, 2012). A UNICEF report ranks Indonesia among her five countries with the highest number of children under the age of five experiencing stunting (UNICEF, 2013a). There are 34 provinces in Indonesia, 14 provinces with stunting prevalence in the severe category, and as many as 15 provinces in the severe category. The lowest incidence of stunting is found in Riau Islands, DI Yogyakarta, DKI Jakarta, East Kalimantan (30%) and highest (>50%) in East Nusa Tenggara (Balitbangkes, 2013). This indicates that the stunt effort must be a priority as the impact is so far-reaching.

Maternal health and nutritional status before, during and after pregnancy influence fetal growth and risk of developmental delay. Other factors affecting the mother include maternal posture (short), pregnancies too short, the mother still in her teenage years, and inadequate food intake during pregnancy. The nutrition received from birth, of course, has a great impact on that growth, including the risk of growth. Lack of early breastfeeding induction (IMD), lack of complete breastfeeding (ASI), and early weaning process may be one of the contributing factors to growth retardation. On the other hand, when offering ASI (MP ASI) complementary foods, the quantity, quality and safety of the food served must be considered.

In 2017, the percentage of newborns who received her IMD nationwide was 73.06%. This means that the majority of Indonesian newborns started breastfeeding at an early age. The province with the highest rate of newborns undergoing IMD was Aceh (97.31%) and the province with the lowest rate was Papua (15%). There

are 12 provinces that are still below the national figure, and West Papua has not yet collected data. In 2017, the national exclusive breastfeeding rate was 61.33%. The rate of exclusive breastfeeding is highest in West Nusa Tenggara (87.35%) and lowest in Papua (15.32%). There are still 19 states below the national value. Therefore, there is a need to improve socialization about the benefits and importance of exclusive breastfeeding. Socioeconomic and sanitary housing conditions are also associated with the occurrence of stunting. Economic conditions are closely related to the ability to provide nutrition and health care for pregnant women and young children. Hygiene and food safety can increase the risk of infectious diseases. Infections due to hygiene and infectious diseases.

## **RESEARCH METHOD**

### **Formulation of Research Question**

The prevalence of stunting in East Nusa Tenggara is a serious problem, with a prevalence of over 40%. This high rate is associated with eating disorders in the first 1000 days of life. Failure to treat early affects the nutritional status of the next child. Underdeveloped children born small are at risk of developing a variety of degenerative diseases while remaining small until the next age. In the WHO Conceptual Framework for Causes and Consequences of Stunting, the incidence of stunting is associated with anemia and IBD pregnancies, lack of IMD, non-exclusive breastfeeding, and poor quality in children aged 6 to 24 months. It has been described as being associated with the complementary foods of To prevent and reduce the prevalence of stunting, specific nutritional interventions should be implemented with family support. The formulation of the research question is whether there are determinants of exclusive breastfeeding of infants aged 0-6 months for the prevention of developmental delay in Kupang province.

The research aimed to address the issue of stunting in the Kupang district through a comprehensive analysis of exclusive breastfeeding practices among infants aged 0-6 months. Specific objectives included identifying determinants of exclusive breastfeeding, analyzing the relationship between respondent characteristics and exclusive breastfeeding, assessing the impact of knowledge and family support on exclusive breastfeeding, and evaluating the role of healthcare staff in promoting exclusive breastfeeding. The research yielded significant outcomes, including a reduction in stunting cases in East Nusa Tenggara, the development of a definitive model for exclusive breastfeeding, and the establishment of a stunting prevention model through enhanced family support. Furthermore, the findings were disseminated through publication in accredited national and international journals, contributing to health promotion efforts and advancing intellectual property rights in the realm of healthcare media and models.

Conceptual Framework

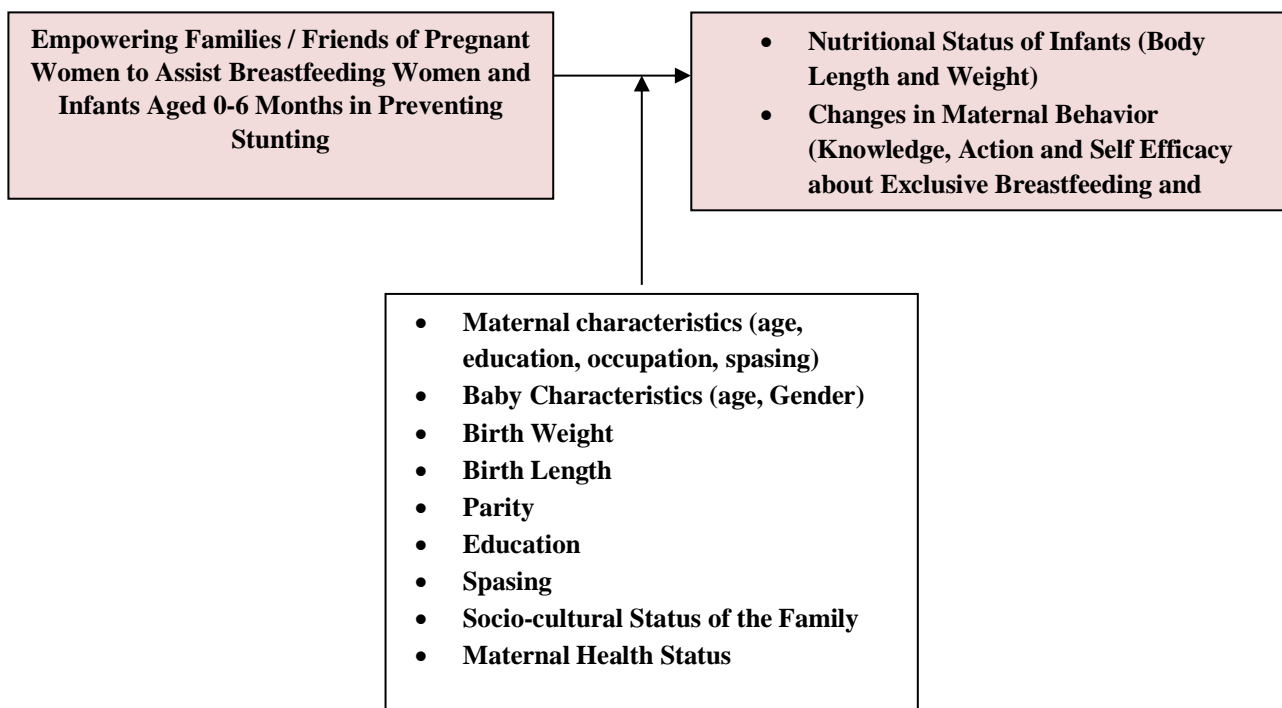


Figure 3.1 Research Concept Framework

Operational Limitations

Variable	Limitations	Measurement Method	Result
Stunting	Infant weight/height < - 2 SD		Risk of stunting Not stunted (normal)
Birth Length	Linear measurement from head to feet immediately after birth in cm	Measure infant body length immediately after birth cm	Cm 0. normal (PL ≥ 48 cm) 1. Short (PL < 48 cm)
PB/U	Index calculation based on Linear size from head to toe in cm according to age	Measurement of the baby's body length, measured at months 1, 3 and 6 after the intervention	0. Normal 1. Short/Very short

TB/U	Index calculation based on Linear size from head to toe in cm according to age	Measurement of the baby's body length, measured at months 1, 3 and 6 after the intervention	0.Normal 1. Short/Very short
IMD	Immediate application of IMD after birth	Observation of the success of mothers implementing IMD	0. Implemented 1. Not implemented
Exclusive Breastfeeding	Mother's success in providing Exclusive Breastfeeding up to 6 months	Observation of mother's success in providing Exclusive Breastfeeding up to 6 months	0. Exclusive Breastfeeding 1. Not exclusive breastfeeding
Mother Age	Mother's lifespan in full years of pregnancy	The results of the interview by calculating the length of life from birth to the last birthday according to the ID card.	In years 21-35 years < 21 years
Parity	Number of pregnancies experienced breastfeeding	Results of the interview on the number of children who have been born	1.Primipara 2.Multipara 3.grandemultipara
Education	The last level or level of formal education taken by pregnant women is marked by the existence of a diploma	Results of completed formal education interviews	1. Elementary 2. Secondary 3. High school
Spasing	Pregnancy interval/birth spacing now with previous pregnancy in months	The results of the interview by calculating the difference in date, month, year of birth of the last and second-last child	1. Less than 24 months 2. 24 months or more
Nutritional Status of Breastfeeding Mothers	The nutritional condition of breastfeeding mothers based on LILA and maternal weight gain during pregnancy as measured by calculating the difference in weight of pregnant women in TM II pregnancy with before delivery.	Results of interviews with the calculation of the difference in maternal weight in TM III with pre-pregnancy weight / TM I	In Kg 1. According to recommendations 2. Less than recommended 3. More than recommended

## RESULT AND DISCUSSION

In this chapter, researchers present the results and discussion of the results of research on the determinants of exclusive breastfeeding aged 0-6 months in stunting prevention in Kupang Regency, NTT. Data collection using questionnaire and observation sheets (MCH book) with a total of 75 respondents who have babies aged 7-24 months.

### **Research Characteristics**

#### ***Research Location***

This research was conducted in Kupang Regency, Batakte Health Center Working Area, and Tarus Health Center. Puskesmas Batakte is the central puskesmas for the working area of West Kupang District. Providing outpatient and nap care services with a large area ... Puskesmas Tarus is located in Central Kupang District with an area of 37.92 km<sup>2</sup>, with the following boundaries: East : bordering Kupang District, West :

#### ***Characteristics of Respondents***

**Table 4.1 Frequency Distribution by Age of Respondents in Kupang District in 2021**

No.	Mother's age	(f)	%
1	< 20 Year	2	2,67
2	20 – 35 Year	62	82,67
3	>35 Year	11	14,67
4	Total	75	100,00

**Source : Primary Data, 2021**

Table 4.1 shows that most respondents were in the age group of 20-35 years 62 respondents (85.67%). and the lowest in the age group < 20 years, which is 2 people. (2,67 %). Age ranges from 20-35 years including healthy and mature reproductive age.

**Table 4.2 Frequency Distribution based on Respondents' Education in Kupang District in 2021**

No.	Mother's Education	(f)	%
1	SD	11	14,67
2	SMP	24	32,00
3	SMA	32	42,67
4	PT	8	10,67
5	Total	75	100,00

**Source: Data Primer, 2021**

Table 4.2 shows that the respondents' education level is predominantly SMP with 24 people (32%) and SMA with 32 respondents (42.67%), and lowest at the tertiary level with 8 respondents (10.67%). However, there are still 11 people (14.67%) with low education (SD). Respondents' education levels of SMA and PT are considered good enough to receive information.

**Table 4.3 Frequency Distribution based on Respondents' Occupation in Kupang District in 2021**

No.	Mother's Occupation	(f)	%
1	Petani/IRT	56	74,67
2	Pegawai	12	16,00
3	Swasta	7	9,33
4	Total	75	100,00

**Source : Primary Data, 2021**

Table 4.3 shows that the majority of respondents work as housewives with 56 people (74.67%), a small number work as employees with 12 people (16%), and private sector workers with 7 people (9.33%). Mothers who do not work will have more free time to provide exclusive breastfeeding to their babies.

**Table 4.4 Frequency Distribution based on Baby's Age 0 – 12 months in Kupang District in 2021**

No.	Baby's Age	(f)	%
1	7 Months	17	22,67
2	8 Months	19	25,33
3	9 Months	11	14,67
4	10 Months	12	16,00
5	11 Months	6	8,00
6	12 Months	5	6,67
7	>12 Months	5	6,67
4	Total	75	100

**Source : Primary Data, 2021**

Table 4.4 shows that the majority of babies are aged 7 months to 9 months, with 17 babies (22.67%) at 7 months, 19 babies (25.33%) at 8 months, and 11 babies (14.67%) at 9 months. The smallest age of babies is > 12 months with 5 people (6.67%). Ages under 12 months help mothers to remember the history of exclusive breastfeeding for babies aged 0 – 6 months.

### **Relationship between Mother's Knowledge of Exclusive Breastfeeding and Behavior in Providing Exclusive Breastfeeding**

**Table 4.5 Relationship between Mother's Knowledge of Exclusive Breastfeeding and Behavior in Providing Exclusive Breastfeeding in Kupang District in 2021**

No	Mother's Knowledge	Give Exclusive breastfeeding					
		Exclusive breast-feeding		Not Exclusive breast-feeding		Total	
		n	%	N	%	n	%
1	Good	45	77,59%	2	11,76%	47	62,67
2	Sufficient	10	17,24%	4	23,53%	14	18,67
3	Poor	3	5,17%	11	64,71%	14	18,67
4	Total	58	100,0%	17	100%	75	100,00

Note: Significant P Value =  $0.003 < \alpha = 0.05$

Source: Primary Data 2021

Table 4.5 shows that good maternal knowledge correlates with exclusive breastfeeding, with 45 individuals (77.59%) practicing exclusive breastfeeding. Conversely, mothers with poor knowledge had 11 individuals (64.71%) not practicing exclusive breastfeeding. Maternal knowledge has a significant relationship with the behavior of providing exclusive breastfeeding where  $p = 0.003 < 0.05$ .

#### **Relationship between Family Support for Exclusive Breastfeeding and Behavior in Providing Exclusive Breastfeeding**

**Table 4.6 Relationship between Family Support in Providing Exclusive Breastfeeding and Behavior in Providing Exclusive Breastfeeding in Kupang District in 2021**

No	Family Support	Give Exclusive breastfeeding					
		Exclusive breast-feeding		Not Exclusive breast-feeding		Total	
		N	%	N	%	n	%
1	Good	24	41,38%	2	11,76	26	34,67
2	Sufficient	18	31,03%	9	52,94	20	26,67
3	Poor	16	27,59%	13	76,47	22	29,33
4	Total	58	100,0%	17	100,00	75	100,00

Note: Significant P Value =  $0.018 < \alpha = 0.05$

Source: Primary Data 2021



Table 4.6 shows that good family support is associated with providing exclusive breastfeeding, with 24 individuals (41.38%) practicing exclusive breastfeeding. Conversely, mothers with poor family support had 13 individuals (76.47%) not practicing exclusive breastfeeding. Family support has a significant relationship with the behavior of providing exclusive breastfeeding where  $p = 0.018 < 0.05$ .

### Relationship between Health Worker's Role in Exclusive Breastfeeding and Behavior in Providing Exclusive Breastfeeding

**Table 4.7 Relationship between the Health Worker's Role in Providing Exclusive Breastfeeding and Behavior in Providing Exclusive Breastfeeding in Kupang District in 2021**

No	Health Worker's Role	Give Exclusive breastfeeding					
		Exclusive breastfeeding		Exclusive breastfeeding		Total	
		n	%	n	%	n	%
1	Good	24	41,38%	1	5,88	25	33,33
2	Sufficient	19	32,76%	6	35,29	21	28,00
3	Poor	15	25,86%	10	58,82	22	29,33
4	Total	58	100,0%	17	100,00	75	100,00

Note: Significant P Value =  $0.005 < \alpha = 0.05$

Source: Primary Data 2021

Table 4.7 shows that a good role of health workers is associated with providing exclusive breastfeeding, with 24 individuals (41.38%) practicing exclusive breastfeeding. Conversely, mothers with poor health worker's role had 10 individuals (58.82%) not practicing exclusive breastfeeding. The health worker's role has a significant relationship with the behavior of providing exclusive breastfeeding where  $p = 0.005 < 0.05$ .

## Discussion

### *Characteristics of respondents*

The study conducted in the Tarus and Batakte Primary Health Care Areas, Kupang District, showed that the majority of respondents were in the age group of 20-35 years, with 66 respondents (87%), and the lowest in the age group <20 years, which was 1 person (1.3%). One of the factors influencing exclusive breastfeeding is the mother's age. Notoatmodjo (2010) stated that age is closely related to knowledge. As someone matures, their level of knowledge becomes more mature in thinking and acting.

According to Hurlock (2010), mothers aged 20-35 years are referred to as the "adult phase" and also called the reproductive phase. They face emotional challenges calmly, especially in dealing with pregnancy, childbirth, postpartum, and

caring for their baby later. In mothers aged 35 years and older, where hormone production relatively decreases, lactation processes decrease. Meanwhile, in adolescents aged 12-19 years, thorough examination is required because their physical, psychological, and social development may not be ready, which can disrupt psychological balance and affect breastfeeding. Mothers under 20 years of age are still immature and unprepared physically and socially to face pregnancy, childbirth, and nurturing the newborn.

The age of 20-35 years is considered a healthy and mature reproductive age, which can strongly support exclusive breastfeeding. Whereas, those under 20 years of age, although they have babies with good nutritional status, the frequency is still low. Mothers under 20 years of age are considered immature physically, mentally, and psychologically in facing pregnancy, childbirth, and breastfeeding. Mothers over 35 years of age, despite having babies with good nutritional status, are considered risky, as both reproductive organs and the mother's physical condition have significantly declined. Additionally, there could be inherent risks to the baby and increased difficulties during pregnancy, childbirth, and postpartum (Martadisobrata, 2013).

The research results indicate that the majority of mothers with babies are aged 20-35 years. This is because this age group is considered to have fewer risks. At this age, breastfeeding mothers are usually more active in seeking various information, especially about how to breastfeed and how long the duration should be. The mother's age greatly determines maternal health and is related to pregnancy, childbirth, postpartum conditions, as well as how to care for and breastfeed her baby.

## CONCLUSION

Based on the research findings on the Relationship Between Maternal Knowledge, Family Support, and Healthcare Provider Roles in Lactation Management with Behavior in Exclusive Breastfeeding Practices in the Tarus and Batakte Primary Health Care Areas, Kupang District. The characteristics of the respondents mostly include mothers aged between 20 to 35 years, with 67 respondents (87.0%), predominantly having a high school education with 49 respondents (63.6%), most of whom are housewives (79.2%), and the majority of infants are aged 7 months with 24 respondents (31.2%). There is a significant relationship between maternal knowledge and healthcare provider roles with behavior in exclusive breastfeeding practices in Kupang District with a p-value of 0.003 ( $p = 0.003 < 0.05$ ). There is a significant relationship between family support and behavior in exclusive breastfeeding practices in Kupang District with a p-value of 0.018 ( $p = 0.018 < 0.05$ ). There is a significant relationship between healthcare provider roles and behavior in exclusive breastfeeding practices in Kupang District with a p-value of 0.006 ( $p = 0.006 < 0.05$ ).

Based on the conclusions, the researchers provide the following recommendations: For Respondents: It is hoped that mothers continue to provide exclusive breastfeeding to infants aged 0-6 months considering the comprehensive benefits of breast milk for infants. For Healthcare Providers: It is hoped that healthcare providers can educate the community, especially mothers with infants under 6 months, about the benefits of exclusive breastfeeding and provide information on how to achieve exclusive breastfeeding through health education during integrated health post activities. For Primary Health Care Services: They can enhance promotive services through continuous provision of health promotion activities using various media methods. For Educational Institutions: They can participate in increasing the coverage of exclusive breastfeeding in the community through community service activities such as health education, counseling, etc. For Future Researchers: It is recommended to conduct further research with more variables using multivariate analysis and with a broader research scope.

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