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Factors Associated with the Occurrence of Stunting in Naibonat Village, Kupang Regency, East Nusa Tenggara, in 2022

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ABSTRACT

Background: Stunting is a condition of failure to thrive in children under five years old (children under five) due to chronic malnutrition in the first 1000 days of life and is based on the body weight for age (WAZ) or body height for age (HAZ) index with a z-score limit of less than -2 SD to -3 SD. Stunting can be caused by several factors, such as exclusive breastfeeding, father's education, mother's education, family income, number of children. The purpose of this study is to determine the factors associated with stunting in the Naibonat Village, Kupang Regency in 2022.
Subjects and Method: This is a case-control study conducted in Naibonat Village, East Kupang, Kupang, East Nusa Tenggara, in September-October 2022. There were 134 children under five consisting of 67 stunted children under five and 67 children under five who were not stunted. The dependent variable is the incidence of stunting. The independent variables were exclusive breastfeeding, history of infectious diseases, father's education, mother's education, family income, history of LBW, and number of children. Data were collected using observation sheets and analyzed using the chi-square test.
Results: Not exclusively breastfed (OR= 4.12; 95% CI= 1.84 to 9.24; p< 0.001), history of father's education was low (OR= 0.34; 95% CI= 0.13 to 0.89; p= 0.024), history of mother's education was low (OR= 0.17; 95% CI= 0.04 to 0.65; p= 0.004), low family income (OR= 0.23; 95% CI= 0.08 to 0.62; p= 0.002), and history of LBW (OR= 0.48; 95% CI= 0.40 to 0.51; p= 0.042) related to the incidence of stunting, and statistically significant.
Conclusion: A history of exclusive breastfeeding, a history of low father education, a history of low maternal education, low family income, and a history of LBW are statistically related to the incidence of stunting.

Keywords: stunting, risk factors, children under five.

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BACKGROUND

Stunting is a condition of failure to thrive as a result of chronic malnutrition and repeated infections, especially in the first 1000 days of life, from the fetus to a two-year-old child. Stunting is a condition where a child

height does not match his age (height/age). A person is said to be stunted if his z-score is less than -2SD/standard deviation (stunted) and less than -3SD (severely stunted) (Secretariat of the Vice President of the Republic of Indonesia, 2017).

According to data from the Ministry of Health in 2018, East Nusa Tenggara is the province with the highest percentage of stunting under five nationally at 42.6%. The stunting rate in Kupang Regency in 2021 is 22.3%. One of the Kelurahan in Kupang Regency which has the highest number of stunting is Naibonat Village.

Based on data obtained from the Naibonat Health Center in 2021, it was stated that the number of stunted children under five was 188 (21.4%) out of a total of 877 children under five (Naibonat Health Center, 2021). In addition, in 2022 the number of stunted children under five will decrease to 821 children under five because some children under five have moved their residence, some have also reached the age limit so there are children under five who have graduated and children under five who are just entering. Stunting cases in the Naibonat subdistrict totaled 171 children under five or 20.83%, this shows a decrease in stunting cases in Naibonat. Even though it has decreased, from February to August 2022 stunting cases have increased to 55 children under five (Naibonat Health Center, 2021).

Children can experience stunting problems for various reasons, such as direct and indirect causes. The direct cause of stunting studied is an infectious disease. Based on the results of interviews in the field, most of the children in the Naibonat Village suffer from ISPA and diarrhea caused by a lack of clean and healthy living habits (PHBS). In addition, children who are sick are reluctant to be taken to health facilities so that the illness in children will continue and result in children experiencing malnutrition.

Another factor that causes stunting is LBW. Babies whose birth weight is less than 2500 grams will carry the risk of death, impaired child growth, including the risk of becoming short if not handled properly (Wati, 2021). Parental education also greatly influences the parenting style of children, especially children under five who require proper parenting so that children can grow and develop optimally. In addition, parents also do not understand the importance of exclusive breastfeeding, where exclusive breastfeeding is the best source of nutrition that must be obtained by children aged zero to six months. However, due to a lack of understanding by parents about exclusive breastfeeding, it is given to children only so that the child does not feel hungry and does not cry.

Likewise with the low education of parents so that parents have a number of children which are not in accordance with the family economy. Economic conditions are closely related to the ability to meet nutritious intake and health services for pregnant women and children under five (Republic of Indonesia Center for Health Data and Information, 2018). This study aims to determine the factors associated with the incidence of stunting in the Naibonat Village, Kupang Regency, East Nusa Tenggara in 2022.

SUBJECTS AND METHOD

1. Study Design

This quantitative research that uses an analytical survey method with a cross-sectional research design conducted Naibonat Village, Kupang Regency, East Nusa Tenggara, in September-October 2022.

2. Population and Sample

The population in this study is the total number of children under five who are in

the Naibonat Village, Kupang Regency, East Nusa Tenggara in 2022 as many as 877 children under five years. The sample in this study used the odds ratio sample formula, namely 67 samples for the stunting group and 67 samples for the non-stunted group. So, the total number of samples required in this study is 134 samples.

3. Study Variables

The dependent variable wass the incidence of stunting. The independent variables were exclusive breastfeeding, history of infectious diseases, father's education, mother's education, family income, history of LBW, and number of children.

4. Operational Definition of Variables

Stunting is a toddler's height for age (HAZ) less than -2 standard deviations (SD) so that it is shorter than the actual height.

Exclusive breastfeeding is breastfeeding only for newborns until the baby is six months old, without adding other food or drinks.

History of Infectious Diseases are illnesses that have been or are being suffered by children under five in the last three months. Diarrhea is defecation with a liquid consistency (diarrhea) three times or more in one day (24 hours). ARI is an infection of the respiratory tract that begins with or without fever accompanied by one or several symptoms such as sore throat or painful swallowing, runny nose, and dry cough or phlegm.

Father's education is the last level of formal education achieved by the father of the toddler and the respondent at the time of the study.

Mother's education is the last level of formal education achieved by mothers of children under five years and respondents at the time of the study

Family income is the amount of income in the household per month which is known from family expenditures for a month for food and non-food based on the UMR of Kupang Regency, East Nusa Tenggara.

History of LBW is a baby born weighing less than 2,500 grams regardless of pregnancy status.

The number of children is the number in which a child is born to a woman during the reproductive period.

5. Study Instruments

The data in this study were obtained from primary data and secondary data. Primary data was obtained directly in the field through observation and interviews with respondents who had stunted or not stunted children under five. Secondary data was obtained from the number of integrated service center, the identity of the children under five, the gender of the children under five and data from mothers who have children under five.

6. Data Analysis

Univariate analysis was carried out to describe the characteristics of each study variable in this case exclusive breastfeeding, history of infectious diseases, father's education, mother's education, family income, history of low birth weight babies, and number of children, while bivariate analysis was carried out to see the relationship between independent and dependent variables by using a test chi-square.

RESULTS

1. Sample Characteristic

Based on data from the Naibonat Village, the population in the Naibonat Village is 19,546 people. Of these, there were 3,500 household heads, 9,617 men and 9,929 women. In addition, the Naibonat Sub-District is also dominated by refugees, namely residents of former East Timor with a total of 1,526 heads of households. The health facilities or facilities in the Naibonat Village showed in table 1.

Table 1. Health Facilities in Naibonat Village in 2022.

Types of Health Services	Total (Unit)
Integrated Healthcare Center	11
Cadre	51
Public Health Center	1
Hospital	1
Drugstore	3
Department of Health Laboratory	1

Table 2. Distribucy Frequency of children under five in Naibonat Village

Characteristics	Categories	Frequency (n)	Percentage (%)
Age	12-36 months	67	50
	37-59 months	67	50
Gender	Male	68	50.7
	Female	66	49.3
Exclusive Breastfeeding	Yes	41	11.9
	No	93	88.1
History of Infectious Diseases	Never	16	11.9
	Ever	118	88.1
Father's education	High	24	17.9
	Low	110	82.1
Mother's education	High	17	12.7
	Low	117	87.3
Family Income	High	26	19.4
	Low	108	80.6
LBW history	Normal Weight	130	97.0
	LBW	4	3.0
Number of Children	Normal	79	59.0
	Many	55	41.0

According to table 1, This study involved 134 respondents which can be seen in table 4.2 where 67 respondents (50%) were aged 12-36 months and 67 respondents (50%) were aged 37-59 months. Meanwhile, according to gender, there were 68 male children under five or 50.7% compared to the number of female children under five, namely 66 children under five or 49.3%.

Table 3 shows that this study involved 134 respondents where 41 respondents (30.6%) gave exclusive breastfeeding, while 93 (69.4%) respondents did not exclusively breastfeed. In the history of infectious diseases, 16 respondents (11.9%) never had a history of infectious diseases and 118 subjects (88.1%) had a history of infectious diseases in the last three months.

Father's education, 110 respondents (82.1%) had low education, and 24 respondents (17.9%) had higher education. Mother's education, there were 17 respondents (12.7%) with high education and 117 respondents (87.3%) with low education.

Respondents who have high income amounted to 26 respondents (19.4%), and low education amounted to 108 respondents (80.6%). Respondents who had a history of LBW were 4 respondents (3.0%), while 130 or 97% had Normal BB. the number of normal children is 79 respondents (59%), while the characteristics of respon-

dents with a large number of children are 55 (41%).

2. Bivariate Analysis

Table 2 showed the result of bivariate analysis using ci-square.

Table 2 showed the relationship between factors associated with stunting incidents in Naibonat village, East Nusa Tenggara.

Table 2. Relationship between exclusive breastfeeding and stunting in the Naibonat Village, East Nusa Tenggara in 2022.

Variables	Category	*Stunting*				OR	CI 95%		p
		Case		Control			Lower Limit	Upper Limit	
		n	%	n	%				
Exclusive Breastfeeding	Yes	11	16.4	30	44.8	4.12	1.84	9.24	<0.001
	No	56	83.6	37	55.2				
History of Infectious Diseases	Never	10	14.9	6	9.00	0.85	0.14	0.85	0.891
	Ever	57	85.1	61	31.0				
Father's education	High	17	25.4	7	10.4	0.34	0.13	0.89	0.024
	Low	50	74.6	60	89.6				
Maternal education	High	14	20.9	3	4.50	0.17	0.04	0.65	0.004
	Low	53	79.1	64	95.5				
Family Income	High	20	29.9	6	9.00	0.23	0.08	0.62	0.002
	Low	47	70.1	61	91.0				
LBW history	Normal Weight	63	94.0	67	100	0.48	0.40	0.51	0.042
	LBW	4	6.00	0	0				
Number of Children	Normal	39	58.2	40	59.7	1.06	0.53	2.11	0.861
	Many	28	41.8	27	40.3				

Table 4 shows the results of a bivariate analysis of factors related to stunting. Children under five who are not exclusively breastfed increase the incidence of stunting by 4.12 times compared to children under five who are exclusively breastfed (OR= 4.12; 95% CI= 1.84 to 9.24; p< 0.001), children under five with a history of low father education have a risk of 0.34 times to experience stunting compared to Children under five with high father education (OR= 0.34; 95% CI= 0.13 to 0.89; p= 0.024), children under five with low mother's education history have a 0.17 times risk of experiencing stunting compared to children under five whose mother's education is high (OR= 0.17; 95% CI= 0.04 to 0.65; p= 0.004), and the result is statistically significant.

Low family income increases the risk of stunting by 0.23 times compared to high family income (OR= 0.23; 95% CI= 0.08 to 0.62; p= 0.002) and children under five who have a history of low-birth-weight births increase the risk of stunting by 0.48 times compared to children under five who are born at normal weight (OR= 0.48; 95% CI= 0.40 to 0.51; p= 0.042), and both results were statistically significant.

History of infectious disease (OR= 0.85; 95% CI= 0.14 to 0.85; p= 0.891) and number of children (OR= 1.06; 95% CI= 0.53 to 2.11; p= 0.861) were associated with stunting but not statistically significant.

DISCUSSION

1. The relationship between exclusive breastfeeding and stunting in the Naibonat Village, Kupang.

Based on the results of the analysis, of the 41 children under five who were exclusively breastfed, there were 11 children under five (16.4%) who were stunted and 30 children

under five (44.8%) who were not stunted, while of the 93 children under five who were not exclusively breastfed there were 56 children under five (83.6%) were stunted and there were 37 children under five (55.2%) who were not stunted. The results of statistical tests in this study showed that there was a significant relationship between exclusive breastfeeding and the incidence of stunting in children under five with a p<0.001. The results of the study show that children under five who do not get exclusive breastfeeding have a risk of experiencing stunting compared to children under five who get exclusive breastfeeding. This is because children under five who do not get colostrum where colostrum provides a protective effect on newborns, while babies who do not receive colostrum have a higher incidence, duration and severity of diseases such as diarrhea which contributes to malnutrition under five children so that toddler growth will be slow (Nurjanah, 2018).

This research is in line with research conducted by Holbala (2021)) in the work area of the Batakte Health Center, West Kupang District in 2019 which shows that there is a relationship between exclusive breastfeeding and the incidence of stunting with a p-value of 0.000 (<0.05). However, this research is not in line with research conducted by Toda (2021) in the working area of the Palla Health Center, Wewewa Utara District, Southwest Sumba Regency which shows that there is no relationship between exclusive breastfeeding and the incidence of stunting in children under five with a p= 0.637.

The results of interviews with subjects in the field said that the reason they did not give breast milk to the baby was because the milk did not come out and the mother experienced pain in her nipples. Because breast milk doesn't come out, they give more formula milk to children. In addition to formula milk, before the age of the child reaches 6 months the mother of the toddler has given other types of food and drinks such as porridge, formula milk, plain water, starch/rice water, sugar water or tea. Then if the milk from the toddler's mother has come out and is smooth, they will give it to the baby, but at the same time give formula milk or plain water, starch water. We can see this maybe because a mother has less and less knowledge about the benefits of exclusive breastfeeding. This causes some children under five in Naibonat village to experience malnutrition and are always sick and have heights and weights that are not in accordance with normal children under five in general.

Based on the results of research in the field, it also shows that mothers of children under five do not understand and do not think that counseling on exclusive breastfeeding is very important, when counseling is carried out by the health authorities, some mothers under five do not attend these activities.

2. Correlation between history of infectious diseases and incidence of stunting.

Based on the results of the analysis that of the 118 children under five who had a history of infectious diseases, there were 57 children under five (85.1%) who experienced stunting and 61 children under five (91.0%) who did not experience stunting, while of the 16 children under five who never had a history of infectious diseases there were 10 children under five (14.9%) who were stunted and 6 children under five (9.0%) who were not stunted.

The results of statistical tests showed that there was no significant relationship between a history of infectious diseases during the last three months and the incidence of stunting in children under five with a p= 0.28). This is because infectious

diseases do not cause serious problems for the growth and development of children if the food intake given is very good and parents have sufficient knowledge about infectious diseases that can cause growth problems, and parents are able to increase supervision of children (Holbala, 2021).

This research is not in line with research conducted by Fadillah (2021) which shows that there is a significant relationship between a history of infectious diseases and the incidence of stunting in children under five in the Pekkae Health Center work area in 2020. This is also in line with research conducted by Nashikah and Margawati (2012) which states that a history of infectious diseases is not a risk factor for stunting. So, it can be estimated that whether or not there is one case of an infectious disease doesnt affect the chance of stunting.

The results in the field showed that the most common cases of infectious diseases were respiratory tract infections and diarrhea. Cases of this disease can occur due to changes in air temperature and sudden changes in weather, for example from rainy weather that suddenly becomes hot in a short time so that the body condition of children under five is not easy to adapt.

3. Relationship between fathers education and stunting incidents

Based on the results of an analysis of 24 fathers of children under five with high education, there were 17 children under five (25.4%) who were stunted and 7 children under five (10.4%) who were not stunted, while out of 110 fathers of children under five with low education there were 50 children under five (74, 6%) who experienced stunting and 60 children under five (89.6%) who did not experience stunting. The results of statistical tests showed that there was a significant relationship between father's education and the incidence of stunting in children under five with a p= 0.024.

This is because father's education is the main capital in supporting the family economy. Fathers also play a role in the preparation of family meals, as well as the upbringing and care of children. For families with a high level of education, it will be easier for them to receive health information, especially in the field of nutrition, so that they can increase their knowledge and be able to apply it in everyday life. If family education is low, the result is that they are unable to choose so serving food to families meets balanced nutritional requirements (Resti, 2019).

This research is in line with research conducted by Fadillah (2021) at the Pekkae Health Center, Tanete Rilau District, Baru Regency, which shows that there is a relationship between father's education and the incidence of stunting in children under five with a p= 0.015. While the results of this study are not in line with research conducted by Hapsari (2018) which states that there is no significant relationship between father's education and the incidence of stunting in children under five aged 12-59 in the working area of the Bandyudono II Health Center.

A low level of parental education is a risk factor for stunting in children under five, while parents with higher education have a broader knowledge of child care and parenting. The level of education is also related to income, where the level of income tends to be higher along with the higher level of education. Educated families live in small households with decent housing conditions, maintain a clean environment and are able to make better use of health care facilities. Fathers with a high level of education tend to have a positive attitude towards food nutrition so that it can help meet adequate nutritional needs for the family. A high level of education also affects the abili-

ty to receive information about nutrition and child health (Rambe, 2022).

The results of research in the field show that most fathers have low education, most fathers have more education with elementary and junior high school graduates. We need to know that the main task of a father is to be the breadwinner in the family, where the level of education of the father also greatly influences the income in the family. A father with low education tends to find it difficult to get a job and also a good income compared to a father who has a high education. In addition, fathers who have low education tend to use their money not wisely. Based on the results in the field, each father uses more of their money to buy necessities that are not useful, for example, if they have money, they spend more on buying cigarettes, alcohol and some other useless things that should be able to help families in the house to buy nutritious food.

4. Relationship between mothers education and stunting incidents

Based on the results of the analysis, out of 17 mothers with highly educated children under five, there were 14 children under five (20.9%) who were stunted and 3 children under five (4.5%) who were not stunted, while of the 117 parents of children under five with low education there were 53 children under five (79.1%) who experienced stunting and 64 children under five (95.5%) who did not experience stunting. The results of the statistical test showed that there was a significant relationship between maternal education and the incidence of stunting in children under five with a value (p= 0.004.) This indicated that with high maternal education, the incidence of stunting was reduced because mothers were generally the main caregivers for children (Semba, 2018).

Research conducted by Husnaniyah et al. (2020) states that there is a significant relationship between the education level of the mother and the incidence of stunting in children under five. Supported by research conducted by Setiawan et al. (2018) stated that there was a significant relationship between the education level of mothers and the incidence of stunting in children under five in the working area of the Andalas Health Center. The results of this study are not in line with the research conducted by Salsabila et al. (2022) which states that there is no relationship between the education level of the mother and the incidence of stunting, is also supported by research by Rahmawati & Agustin (2020) which states that there is no relationship between maternal education and the incidence of stunting.

The level of education has an influence on health, one of which is nutritional status. Individuals who have a higher level of education are more likely to know about a healthy lifestyle and how to keep their body fit, which is reflected in implementing a healthy lifestyle, such as consuming a nutritious diet. The level of maternal education is closely related to the level of knowledge about health care, pregnancy and postpartum, as well as awareness of the health, nutrition of children and their families (Agustina, 2021).

The results of research in the field show that the education of mothers in the Naibonat sub-district is mostly low education. During interviews, to communicate with toddler mothers we have to use language styles and situations in the field. Mothers who have low education in parenting are not always good, especially in choosing the type of food, when asked they also never access or dig up information about nutritional status or positive things that have an impact on children's health. This shows that mothers of children under five do not have the motivation to develop, especially in the child care process which will impact

the nutritional status of the child's health so that stunting does not occur.

Mothers under five also find it difficult to accept new things, for example when health workers from the community health center, health offices and other related agencies provide counseling or information about health and efforts to prevent stunting, they still don't follow the advice or motivation given by the cadres. cadres and health workers, so this is a big obstacle to improving the health of their families. According to them, the food is edible, especially for children under five so that children under five don't cry and don't get hungry.

5. The relationship between family income and stunting

Based on the results of the analysis, out of 26 families with high income, there were 20 children under five (29.9%) experiencing stunting and 6 children under five (9.0%) not experiencing stunting, while out of 108 families with low income, there were 47 children under five (70.1%) who were stunted and 67 children under five (91.0%) did not experience stunting. The statistical test results showed that there was a significant relationship between family income and the incidence of stunting in children under five with a p< 0.001. This is because low income will affect the quality and quantity of food consumed by the family. Children in families of low economic status tend to consume less food in terms of quantity, quality, and variety. Conversely, parents with adequate family income will have the ability to provide for all of their children's primary and secondary needs. Families with good economic status also have better access to health services (Toda, 2021).

This research is not in line with research conducted by Holbala, (2021) in the working area of the Batakte Health Center, West Kupang District, which shows that there is no relationship between family income and the incidence of stunting in children under five with a p-value of 0.819 (> 0.05). This could be because the income received is not fully spent on basic food needs, but for other needs. A high level of income does not necessarily guarantee good nutritional status for children under five, because the level of income is not necessarily allocated sufficiently for food needs (Zai, 2018).

The results of this study are in line with research conducted by Rahmawati & Agustin (2020) that family income is related to stunting. Research conducted by Lestari et al. (2022) also stated that there was a relationship between parental income and the incidence of stunting. Supported by the research of Kawulusan et al. (2019) which states that there is a significant relationship between family income and the incidence of stunting.

The results of research in the field showed that the income level of the community, especially families of children under five who experience stunting, is below the UMR of Kupang Regency, which is normally 1,950,000. The income level of the community ranges from IDR 500,000 to IDR 1,000,000, so that the children's primary and secondary needs cannot be met properly. This is because the average community works as a farmer, even though they work as farmers they do not have large enough land like other farmers in general. The land that is owned can be seen as a small garden which is then planted with various vegetables which are then resold to increase income rather than for consumption.

In addition, it is difficult for people to get jobs because most of the people are refugees from former East Timor who later occupied the area, plus most people have

low education making it difficult for them to get jobs. The area and place occupied is also not their right and property so that the land owner can take it back at any time. In addition, family incomes derived from sales are allocated for non-food expenditures such as cigarettes and other non-food items compared to food expenditures. Low income will affect the quality and quantity of food consumed by the family (Kawulusan et al., 2019).

6. Relationship between LBW History and Stunting Incidents

Based on the results of the analysis, out of 130 children under five with normal weight, there were 63 children under five (94.0%) who experienced stunting and 67 children under five (100.0%) who did not experience stunting, while out of 4 children under five (6.0%) who had a history of LBW there are four children under five who experience stunting. The statistical test results showed that there was a significant relationship between LBW history and the incidence of stunting in children under five with a p= 0.042. This research is in line with research conducted by Rambe (2022), that there is a relationship between LBW and stunting in children under five in the Hutaraja Village, Muara Batangtoru District, South Tapanuli Regency. However, this research is not in line with research conducted by Resti (2019) which shows that there is no relationship between LBW and the incidence of stunting in children under five.

Based on the results of interviews in the field, there were several children under five who had experienced LBW. Based on the results of the study, there was a relationship between LBW and the incidence of stunting, but more cases of stunting were in children under five with normal weight. Babies born at normal weight can also generally grow slowly due to the quantity and quality of nutritional intake that is lacking or a little during the growth period so that they can be at risk of experiencing stunting. In addition, the quality and quantity of solids is also important for toddler food because it contains a source of macro and micro nutrients that play a role in children's growth.

In addition, mother's parenting style, especially food, greatly influences the nutritional status of children under five, while in the field mothers under five do not understand the importance of these things and think that if they are given food, such as rice or porridge without side dishes, it can make children full and not cry. However, stunting can occur in normal children under five because the child's failure to grow and develop depends on the process of caring for and caring for the mother.

7. The relationship between number of children and the incidence of stunting

Based on the results of the analysis, that of the 79 families with a normal number of children, there were 39 children under five (58.2%) who were stunted and 40 children under five (59.7%) who were not stunted, while of the 55 families who had a large number of children, there were 28 children under five (41.8%) were stunted and 27 children under five (40.3%) were not stunted. The statistical test results showed that there was no significant relationship between the number of children and the incidence of stunting with a p-value of 0.861 > 0.05. This research is not in line with the research conducted by Kusumawardhani et al. (2020) which shows that there is a relationship between the number of children and the incidence of stunting.

This is also in line with research conducted by Oktarina & Sudiarti (2013) in Sumatra on children under five aged 24–59 months. However, the research results are

not in line with the research of Aridiyah et al. (2015) in Jember Regency. This is contrary to existing theory. The availability of food in families with more children is generally less when compared to the number of children in sufficient families. The uneven distribution of food to all family members can cause children under five in the family to suffer from malnutrition (Kusumawardhani et al., 2020).

The results of field interviews showed that some respondents had a normal number of children but also had a large number of children. The number of family members is also one of the factors that influence the growth of children. Based on the results of interviews with families with a large number of children, more of them come from families with less income, according to them, the greater the number of children, the greater the fortune. If they have many children, it means that they will always receive good fortune and assistance from the government or related parties.

There are a large number of children, but if the mother as a caregiver has the ability to care for and coordinate proper and balanced feeding, nutritional problems such as stunting will not occur, so mothers must be fair and equitable so that children can get good nutrition and not be lacking. Therefore, the more children in the family, the smaller the gift to each child.

Suggestions for the community health center, especially mothers who have children under five, need to play an active role in caring for their children and actively seek information related to the causes of malnutrition, especially the problem of stunting and what impact it has on their children. Researchers also hope that mothers will actively consult with the puskesmas in order to find solutions related to their children's consumption patterns that are less than optimal. Suggestions for the Kupang Regency Health Office and community health center, namely using the Local Area Monitoring system (PWS), to monitor the achievement of counseling results and trends in each region (Village, Posyandu, or others), so that priority activities and treatment measures can be determined which are the main factors stunting incident. Suggestions for other researchers, namely future researchers are expected to add research variables that have not been studied by previous researchers such as: culture, occupancy density and mother's age.

AUTHOR CONTRIBUTION

Wehelmince Sisilia Cantika Dasi Muda as lead researcher, Marselinus Laga Nur, Rut Rosina Riwu as supervisor in data analysis and article writing.

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CONFLICT OF INTEREST

There is no conflict of interest in this study.

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